Fujitsu Group's Power-Saving Initiatives

All of our business locations in Japan are involved in electricity conservation using Environmental Management Dashboards.

Achieved over 20% energy savings during summer 2011 at Fujitsu locations serviced by Tokyo Electric Power Company and Tohoku Electric Power

In response to the Great East Japan Earthquake that struck in March 2011, the Japanese government asked large electric power users to reduce their peak electric power use from July 1 to September 9, 2011 by 15% from the level in the previous year. The Fujitsu Group set up a power conservation committee with the Company president as chairman. Following an examination of conservation targets and countermeasures, the Group then introduced power-saving initiatives to achieve an even higher reduction of 20% for business sites and factories within regions served by the Tokyo Electric Power Company, Incorporated (TEPCO) and Tohoku Electric Power Co., Inc. In addition, Fujitsu offices and factories served by The Kansai Electric Power Co., Inc. (KEPCO) reduced power consumption by over 10%, as directed by the government. Bases located in other utility service areas have also decided on initiatives to curb their electricity usage.

Measures to Conserve Electricity Using Environmental Management Dashboards

In implementing measures to conserve electricity in the wake of the Great East Japan Earthquake, the Fujitsu Group's responsibility was to determine how it could save electricity with minimal effects on business. Essentially, the Group was asked to continue to provide its customers with products and services without delay, while working to achieve its goal of using less electric power. Visualizing the state of electric power usage in real time was critical to meeting these challenges. But success also required mounting a response based on a Joint Utilization Control Scheme*1 for cutting peak usage by treating multiple factories as a single unit. This prompted the Fujitsu Group to develop and incorporate the Environmental Management Dashboard in its measures to conserve electricity.

A screen displaying power usage

The Environmental Management Dashboard displays on a user-friendly portal screen the state of electric power use every hour at each business facility, discrepancies from target values, comparisons with power use the previous year, and predictions of demand for each day based on production plans. For factories under the Joint Utilization Control Scheme, when it appears that the electric power consumption target value is about to be exceeded as a result of the air temperature or state of operation of production lines, factories under the scheme must take immediate action to mutually adjust their electric power consumption. Real-time monitoring then takes place via the Environmental Management Dashboard.

By rigorously monitoring electricity savings and formulating and executing related measures in this way, we were able to reduce electricity consumption beyond our target of 20% within the TEPCO and Tohoku Electric service areas. We not only cut peak power use but also generated considerable cost savings from reductions to total power consumption.

*1 Joint Utilization Control Scheme:
Under electric power consumption caps set by Article 27 of the Electricity Business Act, multiple business facilities of a large electric power user jointly control the maximum electric power used. It is an initiative which has been confirmed to cut maximum electric power use by a group of business facilities. For example, when business facility A discovers that its power cap is about to be exceeded, business facility B cuts down energy use by an equivalent amount.

Main Power Saving Initiatives of the Fujitsu Group

From July to September 2011, power conservation measures were implemented at Fujitsu Group locations in Japan, led by large-scale sites, as well as Fujitsu plants and tenant office buildings nationwide.

1. Approximately 4,100 of the roughly 10,000 servers used for Fujitsu's development and business operations were either relocated to datacenters outside the regions serviced by TEPCO and Tohoku Electric, or had usage temporarily suspended.
2. Fujitsu reduced the number of production facilities and shifted operations of some manufacturing processes to nighttime.
3. At its buildings and offices based in commercial buildings that it occupies as a tenant, Fujitsu curtailed the use of elevators and lighting, adjusted the temperature of air conditioners, and suspended the use of water heaters and refrigerators.

The Fujitsu Group had succeeded in reducing year-on-year power consumption by between 20% to 41% at offices and factories (excluding exempted sites) located in areas serviced by TEPCO and Tohoku Electric. In addition, Fujitsu offices and factories served by KEPCO reduced power consumption by over 10%.

Case Study

All Fujitsu's 100 thousand PCs set to power-saving mode

As a measure to save energy in summer of 2011, all PCs used by the Fujitsu Group in Japan were set to power-saving mode. First, Systemwalker Desktop Patrol, a client management software tool, was used to collectively verify the settings of all of the roughly 100 thousand PCs targeted. Steps were then taken for non-compliant PCs to promote a settings change. Applying power-saving mode to all PCs is estimated to cut power consumption by around 11,000 kwh per day across the Fujitsu Group.

About Systemwalker Desktop Patrol

Systemwalker Desktop Patrol is a client management product for conducting centralized management of ICT assets such as PCs, printers and software licenses, as well as automatic security patch application/audits and other operations. In August 2009, amid recent growth in environmental consciousness in Japan and revisions to the country's Act on the Rational Use of Energy, Fujitsu unveiled Systemwalker Desktop Patrol V14g. In addition to conventional client management features, this latest version has new functions for visualizing power usage, carbon emissions and operating status designed to reduce wasteful PC power consumption.

Systemwalker Desktop Patrol V14g makes it possible to automatically retrieve PC power-saving settings, verify if these conform to the power conservation policy set by the system administrator or organization, and prompt the user to change the settings if needed. Settings can also be set automatically to comply with the policy.

- Systemwalker Desktop Patrol V14g

Example of results report on power-saving settings audit

Reducing Electricity Consumption by 10% in KEPCO Service Area in Winter 2011

During the winter of FY 2011 as well, major power consumers in the Fujitsu Group and our business locations carried out electricity conservation activities based on a request received from the government. The goal was to reduce power consumption year on year during the four-month period between December 1, 2011 and March 31, 2012; specifically, a 10% reduction in peak power use in the KEPCO service area, and 5% in other service areas.

As a result, in the KEPCO service area, we reduced peak power consumption by at least 10% over the entire four-month period from December to March, successfully achieving our target. In addition, the Fujitsu Group as a whole achieved its target by reducing peak power consumption by at least 5%.

Future Activities to Save Electricity

Even during periods in which the government does not request reductions, the Fujitsu Group will utilize Environmental Management Dashboards and engage in established electricity conservation efforts at domestic business locations and factories within a scope that does not affect business activities. We will conduct electricity conservation activities in accordance with government requests during the summer of 2012 as well.

Going forward, we intend to help customers reduce and level power consumption, using this initiative as an environmental reference model.