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Environmental Management Green Reference for Tomorrow

Environmental Management Dashboard Case Study

The Environmental Management Dashboard can visualize the state of electrical power use in real time to save energy by cutting peak power exceeding a target value.

Environmental Management Dashboard | Case Study

In response to the Great East Japan Earthquake, the government has asked large electric power users to reduce their peak electric power use by 15% from the level in the previous year. The Fujitsu Group has introduced electric power saving initiatives to achieve an even higher reduction of 20%. The object area includes all regions served by the Tokyo Electric Power Co., and Tohoku Electric Power Co. To achieve its goal, it has had to visualize the state of electric power use in real time and perform integrated management. The Environmental Management Dashboard is used as the key to realizing these capabilities.

Our Mission is to save electric power with minimal effects on the business

The mission assigned to the project team established immediately after the earthquake was to answer the question: "How can we save electricity with minimal effects on our business?" Fujitsu 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. To meet both this challenge, we had to introduce and work hard to implement a variety of innovations such as the Joint Utilization Control Scheme*1 at many of our factories.

"Through the project, we have created a system which transcends differences in specifications of the energy management systems in operation at each facility to automatically collect real time information from each one"

To do so, we had to automatically collect and visualize, on a company wide-level, the state of electric power use at each business facility where electric power was to be cut.

*1. 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. Fujitsu, has taken initiatives to cut peak power use treating multiple business facilities as a single unit.

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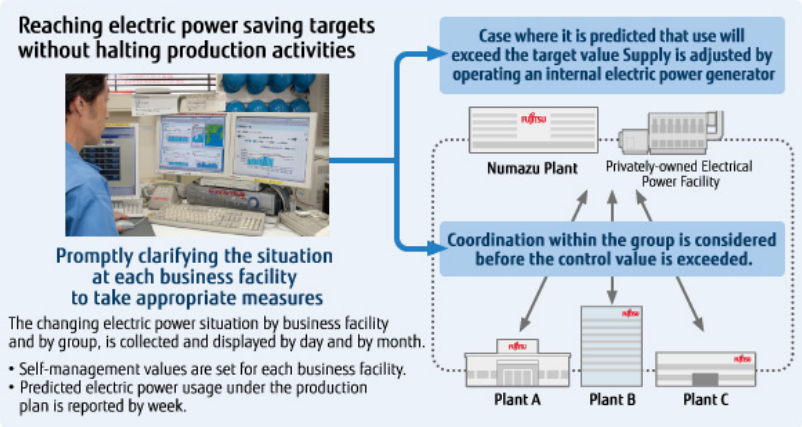
Real-time visualization essential to cut peak power use and achieve our target electric power reduction

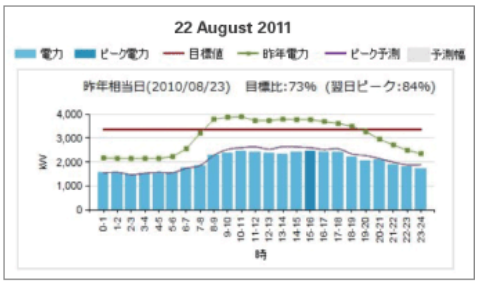
Related Links
- Environmental Management
- Environmental and Social Contribution Activities
- Environmental Communication



To achieve our target electric power reduction, we have to establish methods of responding when, for example, 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 productions lines. Immediately after that occurs, factories taking part in the Joint Utilization Control Scheme mutually adjust their electric power consumption. To do this, they have to visualize the state of electric power consumption in real time.

The project team used the Environmental Management Dashboard to achieve visualization of electric power use while coordinating activities at all our offices and other business facilities participating in the scheme, during the three month period before the full-scale peak of electric power consumption.

Accessed by a web browser, the Environmental Management Dashboard displays predictions of demand for each day based on the state of electric power use every hour at each business facility, discrepancies from target values, comparisons with power use the previous year, and the present year's production plan. This information is used to both reach our electric power saving target and fulfill our production plans.



Displaying peak use predictions and hourly electric power use

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Cutting peak power consumption by more than 20%[*2] and helping lower costs


"The electric power supply may continue to be unstable in the future. I hope that our initiatives will be used skillfully by our users to conserve power and lower costs."
Seiji Kawaguchi
Director, Green Factory Engineering Department
Fujitsu Limited

Seiji Kawaguchi, who is director of Green Factory Engineering Department and serves as the project leader, has stated that, "We cut peak power use by more than 20%, which was our goal, with the cooperation of all our business facilities. I hope that we can apply our efforts to lower and smooth our customers' electric power use."

Energy Administrator, Koichi Nagaoka, who directed energy conservation at Numazu Plant, a facility taking part in the Joint Utilization Control Scheme, has evaluated its efforts in the following words. "We succeeded in effectively monitoring the state of electric power saving and proposing and implementing countermeasures thanks to visualization by the Energy Management Dashboard. I feel that we effectively lowered our costs, not only by reducing peak power use, but by cutting overall electric power consumption."

Fujitsu will continue to use its Environment Management Dashboard to contribute to both business growth and environmental load reduction.

"Every day, I notice various things on the Environmental Management Dashboard, so I clearly understand the exhausting initiatives being take at other factories. We cannot go back to manual information collection."
Koichi Nagaoka
Energy Administrator, Facility Planning & Environmental Services Management Department
Numazu Plant, Fujitsu Facilities Limited

*2. Performance at Fujitsu

Environmental Management Dashboard »

Green Policy Innovation

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