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AI-based High-Precision Electrical Power Demand Forecasting System Adopted by a Power Producer and Supplier, Summit Energy

Weathernews Inc. has developed an Electrical Power Demand Forecasting System based on its own proprietary AI technology, and has launched an Electrical Power Demand Forecasting Service. This system applies AI continuous learning to the latest results data, such as weather forecasts and energy consumption, in order to make highly accurate predictions of electrical power demand. The system was developed with the cooperation of Sumitomo Corporation (Headquarters: Chiyoda-ku, Tokyo; president and CEO: Masayuki Hyodo) and a leading Power Producer and Supplier (PPS), Summit Energy Corporation (Head office: Chiyoda-ku, Tokyo; President and CEO: Junji Ozawa; hereinafter "Summit Energy"), who contributed historical power consumption data, experience in supply-and-demand planning, etc.

Summit Energy began using the new Electrical Power Demand Forecasting Service on April 1st, and has found that it reduces costs thanks to improved planning efficiency, and improves the accuracy of demand forecasts.

Summit Energy adopts the Electricity Demand Forecasting Service for whole market in Japan

Currently, most electrical power companies trade electrical power based on demand forecasts they calculate independently using past data from similar dates with similar weather. This has caused problems, because fine tuning of demand forecasts to achieve high precision requires extra manual process and relies on staff members with experience. To solve this problem, Weathernews developed an Electrical Power Forecasting System that combines power company data, such as electricity consumption, with their own weather forecast data, and applies a proprietary AI-based continuous learning process at 30-minute intervals to produce highly accurate power demand forecasts. The company has also launched an Electrical Power Demand Forecasting Service using this system.

Accuracy verifications have shown the system to be very useful, resulting in its adoption by Summit Energy. A week after the commencement of operation on April 1st, it was confirmed that the system's streamlined demand forecasting

Forecast and actual consumption of electrical power demand

—actual consumption
—forecast

0:30 4:30 8:30 12:30 16:30 20:30

Diagram comparing electrical power demand forecasting for the spot market with actual consumption (red: forecast; blue: actual consumption)

planning had reduced costs and boosted the precision of day-ahead demand forecasting. The resulting improvements to forecasting accuracy are also expected to help optimize procurement volumes, leading to a reduction in the environmental load.

Weathernews has plans for wider deployment of this new Electrical Power Demand Forecasting Service for global market included Asia and Europe, and will work with electrical power companies in the each region to improve efficiency and optimize supply-and-demand planning, helping reduce the environmental impact of electrical power production.



Summit Energy Corporation https://www.summit-energy.co.jp/ (Japanese)