



## **JWA Launches Power Procurement Planning Support Service** **- For Supporting Efforts of Electric Power Companies to Use Bilateral Transactions and** **Futures Market -**

Japan Weather Association (JWA) started the provision of the “Power Procurement Planning Support Service” (hereinafter referred to as “this service”) for electric power companies that use bilateral transactions\*<sup>1</sup> and the electricity futures market\*<sup>2</sup> from November 30, 2021.

JWA provides highly accurate weather forecasts, electric power demand forecasting utilizing artificial intelligence (AI), and forecasts of electricity transaction prices in the spot market\*<sup>3</sup> for electric power providers (such as retail electricity providers and power generation companies). In addition, as a countermeasure to the risk of price fluctuations in the spot market, this service provides the long-term prospects of weather and market prices that are important for bilateral transactions and the electricity futures market, as well as long-term forecast data for the company's own retail demand and area electricity demand. This will enable electric power companies not only to manage daily supply and demand but also to optimize the electricity procurement by using bilateral transactions and the electricity futures market.

JWA will contribute to the business development of electric power companies and the revitalization of the electricity futures market while reinforcing the collaboration with brokers in Japan and overseas who handle electric power futures traded on the Tokyo Commodity Exchange (TOCOM) and the European Energy Exchange (EEX).

<The needs faced by electric power companies>

- Optimizing power supply procurement plans in line with the future forecasts of their own retail demand
- Formation of long-term fixed contracts for electricity procurement using bilateral transactions
- Using the electricity futures market to hedge the risks of price fluctuations in the spot market
- Using the long-term forecast data on area electricity demand to determine the appropriateness of trading prices and volumes
- Knowing the outlook for global weather conditions that affect the price of LNG and other fuels

### **1. Contents of this service**

This service provides the following information online, which is necessary for considering the use of bilateral transactions and the electricity futures market. This will support power companies in preparing their power supply procurement plans as well as trading companies in trading electricity. The weather forecasts for the next several months are prepared based on the JWA's own highly accurate weather forecast data. In addition, electricity demands are forecasted based on weather forecast data from all over Japan and analysis technologies such as AI.

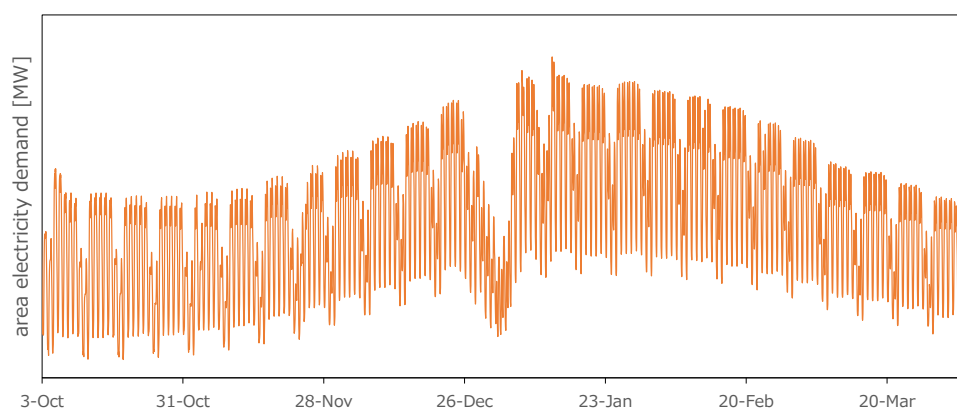
- (1) Long-term electric power demand forecasting data
- (2) Power Market Trading Analysis Report



<contents provided>

### (1) Long-term electric power demand forecasting data

Forecast the retail electricity demand and area electricity demand of retail electricity providers for approximately six months ahead.



Sample of long-term forecast results for area electricity demand  
(Forecast target: TEPCO Power Grid area)

Forecast period: October 3, 2020, to April 4, 2021 (approximately six months ahead)

### (2) Power Market Trading Analysis Report

The information on weather conditions and spot market price forecasts for the next several months is published in the form of reports.

(Examples of published content)

- The analysis results of trends in weather, electricity demands, and market prices
- The information on the outlook for weather and market trends for the next several months
- The timing of the end of this rainy season and surge in spot market prices
- The outlook for the La Niña phenomenon this winter and its impact on the electricity supply and demand in Japan



Sample of Power Market Trading Analysis Report  
(Tokyo area, released in the first week of July 2021)



## 2. Specifications of this service

- (1) Long-term electric power demand forecasting data
  - Forecast target: Own retail demand/area electricity demand
  - Forecast interval: Every 30 minutes
  - Forecast period: Up to about 6 months ahead
  - Frequency of provision: Once a week
  - Options: Extension of forecast period and simulation of temperature change
- (2) Power Market Trading Analysis Report
  - Analysis target: Weather and spot market price
  - Target area: Tokyo and Kansai areas
  - Frequency of provision: Once a month
  - Option: Additional coverage area (Hokkaido and Kyushu areas)

### (3) Examples of the use of this service

**Usage:** Preparation of electricity procurement plans by retail electricity providers and determination of sales price levels by power generation companies

**Description:** Retail electricity providers secure the necessary electricity in advance based on the planned-value power balancing system. <sup>\*4</sup> To secure power in advance, it is necessary to create an optimum power supply procurement plan based on forecast data for their own retail demand from next several months to years and to avoid the risk of fluctuations in spot market prices by using bilateral transactions and the electricity futures market. In addition, there is a need for power generation companies to sell the electricity they generated at a reasonable price through bilateral transactions or the spot market.

By using this service, it will be possible to create economical and efficient electricity procurement and sales plans considering the outlook of nationwide electricity demand.

### (4) Service launch date

November 30, 2021

### (5) Inquiries about this service (for corporate customers)

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#### \*1 Bilateral transactions

A method in which buyers and sellers of electricity buy and sell directly without going through the Japan Electric Power Exchange (JEPX).

#### \*2 Electricity futures market

A trading market for buying and selling future electricity prices rather than the actual price. In this market, there are a wide variety of players, such as domestic and foreign power producers, trading companies, and financial institutions. Since it enables procurement and sales at practically fixed prices, this market is mainly used as a hedge against price fluctuation risks in the spot market.

#### \*3 Spot market

One of the electricity trading markets held by the JEPX. Electricity to be delivered on the next day is traded in 30-minute units (48 units per day).

#### \*4 Planned-value power balancing system

A system under which retail electricity providers and power generation companies adjust so that the planned values for power generation and demand on the previous day match the actual ones on the current day in 30-minute



units. If there is a difference between the planned values and actual values, it is necessary to pay an imbalance fee to the general transmission and distribution company.

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