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Osaka Gas Co., Ltd.
West Japan Railway Company

Osaka Gas and West Japan Railway Company Collaborate on Weather Forecasting and Data Science
A High-Precision Strong Wind Prediction System Was Introduced on the Kosei Line on a Trial Basis

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Osaka Gas Co., Ltd. (Representative Director and President: Masataka Fujiwara, hereafter "Osaka Gas") and West Japan Railway Company (Representative Director and President: Kazuaki Hasegawa, hereafter "West JR") will introduce a strong wind prediction system jointly developed by the two companies on a trial basis along the West JR Kosei Line.

Osaka Gas and West JR have been conducting joint research on predicting strong winds since 2019. By combining the weather prediction technology of Osaka Gas and the AI development technology of West JR, we have developed a system that can predict strong winds along the Kosei Line with higher accuracy than before. Today, we concluded an agreement for a trial introduction along the Kosei Line.

We will proceed with verification toward the introduction of this system, with the aim of further improving the safety of train operations when strong winds are expected on the Kosei Line, ensuring alternative transportation during times of operational restrictions (suspension or reduced speed), and of smoothly informing customers. We are also looking to expand our business to other lines and railway companies, as well as to road-related businesses and other sectors affected by wind.

Osaka Gas started weather forecasting by an original method in 2008 and is also working to improve accuracy by utilizing AI. In 2018, the company obtained a license for weather forecasting services, and this is the first project to utilize this service.

West JR started full-scale data science initiatives in 2017. In 2020, we established the "Data Solution Office" to promote business transformation using data analysis and AI.

Osaka Gas and West JR will contribute to the improvement of railway safety and convenience by utilizing the strong wind prediction system created by combining their respective strengths.

1. Outline of strong wind prediction system

Prediction area	Along the Kosei Line (areas between Otsukyo Station and Omi-Shiotsu Station)
Forecast target	Wind speed and direction
System overview	The results of high-resolution weather forecasting conducted by Osaka Gas are analyzed by the AI model developed by West JR to predict the wind speed and direction up to 24 hours ahead.

<System configuration image>