

December 14, 2020  
Mitsui Chemicals, Inc.  
IBM Japan

## **Mitsui Chemicals and IBM Japan to Jointly Develop New Solar Power Generation Solutions**

Mitsui Chemicals, Inc. (Tokyo: 4183; President & CEO: HASHIMOTO Osamu) and IBM Japan (NYSE: IBM)) announced to have developed and test jointly new solar power generation solutions and formulating their commercialization plans, using weather data from The Weather Company (hereafter "TWC"), an IBM group company.

With sustainable development goals (SDGs) from the United Nations citing renewable energy and more solar power generation facilities being built and operated worldwide, the Mitsui Chemicals Group has been working on a solar power generation level analysis and consulting business (\*1) and developed a new technology that calculates solar radiation levels accurately based on TWC's highly refined weather data and IBM Japan's AI expertise and know-how, to expand the business globally. The company is pleased to announce a new plan to develop and market new solutions based on the improved accuracy of solar radiation forecasts and solar power generation level forecasts.

### **1. Background of the joint development**

Mitsui Chemicals has already amassed extensive records of solar power generation analysis and consulting businesses at home and in India, and intends to roll out solar-power-generation-related solution businesses in Asia, the Middle East and Africa where solar power generation plant projects are set to increase—offering everything from conceptualization consulting to providing solutions and maintenance services—to expand businesses that can contribute to increasing worldwide usage of renewable energy.

TWC is the world's most accurate forecaster globally and has been an IBM group company since 2016. IBM Japan has set up Asia Pacific Forecast Center internally, with meteorologists being stationed for 24 hours a day, 365 days a year, offering weather data as a cloud service to businesses. TWC is able to collect accurate AI-based weather forecast data at in small increments of 500-square-meter resolution updated every 15 minutes, up to 15 days in advance, providing a plethora of current, past and future general weather parameters such as temperatures, rainfall, wind speed and direction and atmospheric pressure, as well as direct solar radiation, apparent temperature and cloud cover, through APIs in every region worldwide, to be used to measure the impact on businesses. Also, using IBM Weather Operations Center (\*2), an integrated weather dashboard solution, TWC supports decision-making of clients from all industries, analyzing business impact by combining weather data

with various other geographical and spatial data sets such as satellite data.

Using each other's respective data and know-how, Mitsui Chemicals and IBM Japan have jointly developed and evaluated the accuracy of the technology that accurately calculates solar radiation levels across the world. The companies have also developed a plan to work on a prototype of a service that forecasts solar radiation and solar energy generation levels, and a plan to market the service as a new solution business.

## **2. Overview and future prospects of the joint development**

Going forward, Mitsui Chemicals (MCI) and IBM Japan will apply TWC's various weather parameters and a geographical terrain analysis platform IBM Weather Operations Center and make an AI learn MCI's solar energy generation level data from solar power stations to develop models that forecast solar radiation levels and solar power generation levels accurately. MCI and IBM Japan will then market a new service that forecasts solar power generation levels and demand. The companies are aiming to launch the new service in fiscal 2021.

(\*1) solar power generation level analysis and consulting business

[https://jp.mitsuichemicals.com/jp/service/next\\_generation/energy.htm](https://jp.mitsuichemicals.com/jp/service/next_generation/energy.htm)

(\*2) Forecast Watch

[https://www.forecastwatch.com/static/Three\\_Region\\_Accuracy\\_Overview\\_2010-2017.pdf](https://www.forecastwatch.com/static/Three_Region_Accuracy_Overview_2010-2017.pdf)

(\*3) IBM Weather Operations Center

<https://www.ibm.com/jp-ja/products/weather-operations-center>