

Mar 7th, 2023

Providing 1km-Mesh Wind and Wave Data to Assist in Determining Possibility of Conducting Offshore Construction Work Weathernews to Begin Providing Support Services Worldwide for Offshore Work Related to Offshore Wind Power Generation

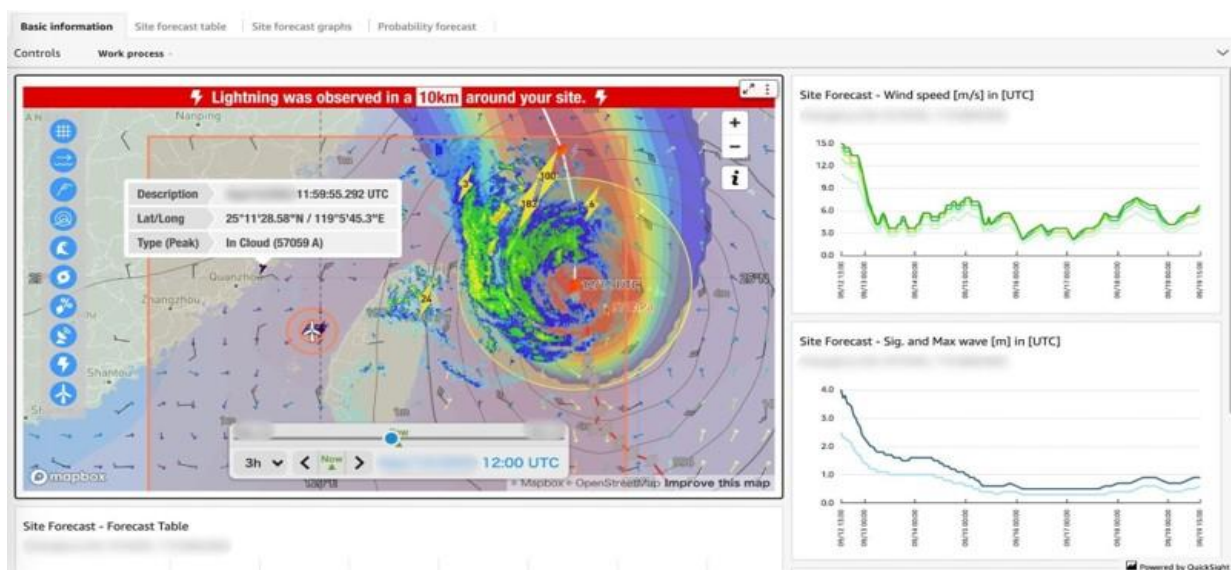
[Weathernews Inc.](#) has begun providing ANEMOI, an offshore work support service for the offshore wind power market, in order to assist with the offshore construction of wind power facilities.

Due to progress in the adoption of green energy and a move to reduce CO2 emissions, offshore wind power has become more important in recent years. For determining the feasibility of construction of offshore wind power facilities, stringent criteria for wind and waves must be met. Meteorological data with higher accuracy are therefore required.

Given this situation, Weathernews developed ANEMOI, a new service for offshore wind power businesses and construction companies that is designed to provide wind and wave forecasts as well as information on meteorological risks, such as lightning strikes and tropical cyclones. With the aid of this service, wave, wind, and other offshore forecasts can be provided using a 1km mesh, the highest resolution available in the industry, and users can also receive information and alerts about meteorological risks that impact offshore work, such as lightning strikes and tropical cyclones. Furthermore, forecasting accuracy can be enhanced by reflecting the data from observation devices that businesses install around their power plants. Businesses will be able to use wind and wave forecasts to formulate work plans and determine the ability to work on a specific day, with a lead time of up to 2 weeks.

Ørsted the world's offshore wind power leader, embraced the use of ANEMOI in March 2022 at its construction site off the shores of Taiwan as a pilot and has decided to use ANEMOI to assist in its construction, maintenance, and other offshore work related to offshore wind power facilities on Greater Changhua 1 & 2a Offshore Wind Farms, given that the service was rated high in forecast accuracy demonstrations held in other parts of Asia.

Weathernews will continue to work on developing new services and improving forecast accuracy in order to provide meteorological support for the various businesses of our customers in the ever-accelerating green energy market.



ANEMOI, a new service for offshore wind power development to support safe and efficient offshore work Environment

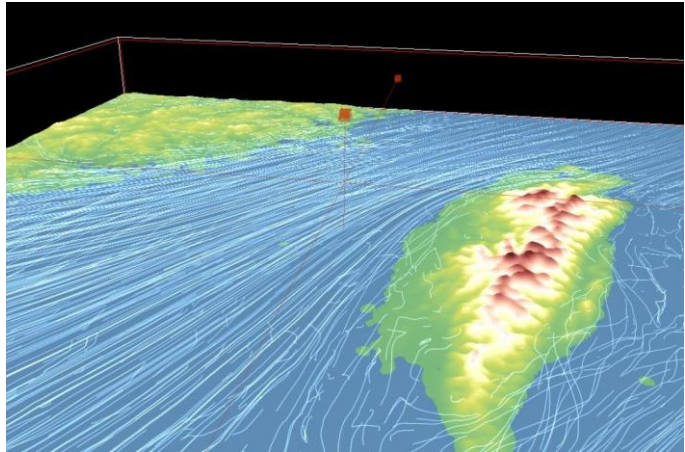
Development of Proprietary Forecasting Model EMOTION for 1km-Mesh High-Resolution Wind and Wave Forecasts

Offshore wind power construction requires highly accurate wind and wave forecasts, as detailed regulations regarding work suspension are in place for safety reasons.

Weathernews developed EMOTION, a proprietary model that provides an hourly offshore wind and wave forecast worldwide for up to 72 hours.

Sea wind and wave data has traditionally been forecasted using a mesh resolution of 5km, but EMOTION can provide forecasts using a 1km mesh, which is the highest resolution in the industry.

In the future, we plan to upgrade EMOTION, to enhance forecast accuracy by correcting with AI and the data from the observation that are often installed at construction sites, as well as past data.



Proprietary forecasting model EMOTION for 1km-mesh high-resolution wind and wave forecasts

ANEMOI, a New Service for Offshore Wind Power Development to Support Safe and Efficient Offshore Work Environment

Weathernews launched ANEMOI, a new service for offshore wind power development, worldwide to improve the safety and efficiency of construction and maintenance work related to power generation facilities. The service is a cloud-based system that can be accessed via a dedicated website and is capable of providing meteorological information necessary for offshore work, as well as highly accurate, high-resolution meteorological forecast generated by integrating the forecasting data from EMOTION. ANEMOI can provide pinpoint wind, wave and other meteorological forecasts for offshore worksites at one-hour intervals out to 72 hours and at three-hour intervals up to 15 days out.

Date/Time (jst)	11/22 20:00	11/22 21:00	11/22 22:00	11/22 23:00	11/23 00:00	11/23 01:00	11/23 02:00	11/23 03:00	11/23 04:00	11/23 05:00
Parts loading	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green
Parts transport	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green
Jacking operation	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green
Pre load	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Tower setting	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green
Nacelle setting	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green
Blade setting	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Commissioning test	Red	Red	Red	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

Feasibility decisions for each work item

Safty(green),Caution(yellow),Waring(red),required time for work(orange)

ANEMOI can also provide ocean current, swells, visibility, tropical cyclone, lightning, tide, and other meteorological forecast information necessary for offshore work in addition to wind and wave information. Further, it can link or display feasibility decisions and observation data for each work item and, among other things, send alert notifications via pop-up and email. In addition to making decisions and adjustments regarding the ability to work on the day of, contractors and power companies can use the information to formulate work plans with lead times out to about 2 weeks.

Framework agreement signed with a global leader in renewable energy

In September 2022, the world's largest developer of offshore wind power by number of built offshore parks around the globe signed an agreement with Weathernews Inc. A review involving multiple companies rated Weathernews as having a high forecast accuracy, which indicates that WNI shares the same goals as the world's leading power companies, which is to have best-in-class forecasts.

Offshore Energy Meteorology Team Offshore Wind Generation

A team of Weathernews professionals specializing in offshore wind generation was established in September 2021 to provide all the services needed to construct, maintain, and operate offshore wind power

plants. Since the company was founded, we have provided meteorological support to various offshore operations and energy markets, including the petroleum market, using the know-how we have acquired through our experience. We are capable of providing 1km-mesh high-resolution wind generation forecast data at 5- to 30-minute intervals and encourage not only companies engaging in offshore work, but also energy businesses such as companies engaging in power generation, transmission and distribution to contact us.

Continuing to develop new services and improving forecast accuracy is an ongoing priority for Weathernews in order to serve the ever-evolving green energy market.

▼ Contact us

<https://global.weathernews.com/contact/inquiries-about-our-services/>