

Offering for Sale a Failure Preventive Monitoring System for Wind Turbines, and Launching a Related Diagnostic Service

Nabtesco Corporation (headquarters: Chiyoda-ku, Tokyo; President & CEO: Katsuhiro Teramoto) will offer for sale a failure preventive monitoring system for yaw devices used in wind turbines (“Condition Monitoring system with Fail-Safe: CMFS”), along with the launch of a CMFS-based diagnostic service.

Wind power is regarded as a promising renewable energy source, and an increasing number of wind turbines are being introduced in Japan and abroad. These turbines are now also being installed in harsh environments, such as on windswept hills in cold areas and in offshore locations. The yaw device, which optimizes the movement of the wind turbine wings according to wind direction, is constantly subject to external forces. Accordingly, it is necessary to implement measures to prevent the device from quickly becoming worn or damaged.

To meet this requirement, Nabtesco developed the CMFS by making full use of its unique motion control technologies. By controlling the yaw drive unit with high responsiveness through the use of a sensor, the CMFS helps to prevent wind turbine failure and prolong its life. For the CMFS-based diagnostic service, Nabtesco will visualize analytical data on external forces as well as the record of past abnormalities in real time, with an eye toward providing warnings about any abnormalities to users of the system and offer predictions on the remaining life of the drive units, which will in turn help to maintain the reliability of the wind turbines for many years.

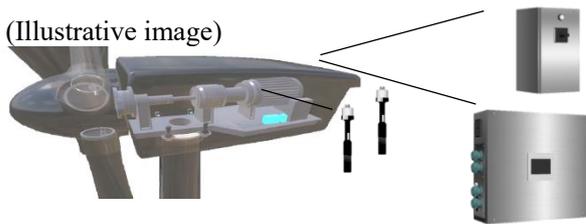
Nabtesco will offer for sale the CMFS and start the diagnostic service for wind power generation companies and wind turbine manufacturers in January 2022.

Outline of the CMFS and diagnostic service:

- 1) Target Yaw devices of wind turbines
- 2) Features
 - Detect the external load imposed on wind turbines with a unique sensor, thereby preventing the failure of yaw devices.
 - Equalize the load imposed on each of the yaw drive units
 - Attachable to all wind turbines, whether existing or new
 - Users of the service will receive internet-based warnings about abnormalities, if any, and have access to information about the imposed load, the record of past abnormalities and predictions on the remaining life of the drive units.

Outer appearance of the CMFS and diagnostic service

(Illustrative image)



CMFS is composed of an external load detection sensor, a controller, and a power supply device.



Diagnostic service: Visualization of diagnostic information

【Contact for inquiries】

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