



Siemens Gamesa wind farm in Vietnam. (Courtesy: Siemens Gamesa)

► CONSTRUCTION

Siemens Gamesa helps to unlock renewable potential in Vietnam

Vietnam has some of the best wind resources in Southeast Asia. In an effort to tap the country's potential and provide more clean energy to the country, Siemens Gamesa Renewable Energy will supply 25 SG 4.5-145 for one of the nation's largest wind farms. With a total capacity of 113 MW, the Hoa Thang 1.2 wind farm will generate enough electricity to meet the demands of more than 240,000 Vietnamese following its commissioning in 2021.

The deal also marks the largest order in the country for Siemens Gamesa.

Additionally, the company has secured a long-term 10-year service contract.

The project is in the Bac Binh district, Binh Thuan province on the South-Central coast of Vietnam, and it is developed by Hoa Thang Energy Joint Stock Company, a special-purpose vehicle of Vietnam's construction group Trading Construction Works Organization (WTO), which has close to 60 years construction experience.

Hoa Thang Energy is a pioneer of renewable energy in Vietnam, where the fast-growing economy has seen electricity demand rise by about 10 percent annually. The Vietnamese government estimates that total power generating capacity will reach 125 to 130 GW by 2030, up from 46 GW in 2018. In order to mitigate climate concerns, the government also aims for renewable energy to account for 15 to

20 percent of its total energy output by 2030 and has established a target of developing 6 GW of wind power capacity by 2030.

"With an accumulated installation of 101 GW, Siemens Gamesa can leverage its global expertise and footprint to partner with Hoa Thang Energy to develop one of the largest wind farms in Vietnam. As market scale and financing are helping to unlock potential in Vietnam, we are committed to supporting our Vietnamese customers to accelerate the penetration of renewable energy and bring clean power for generations to come," said Richard Paul Luijendijk, CEO of Siemens Gamesa's Onshore business unit in APAC.

"With deep rooting in Vietnam, we are pleased to partner with Siemens Gamesa and leverage its industry-leading experience and reputation to de-

velop renewable energy in the country,” said Nguyen Thanh Oai, CEO of Trading Construction Works Organization. “We selected Siemens Gamesa as the most appropriate supplier for our first wind farm project. This first ever cooperation between the two companies will lay a good foundation for us to further explore the wind market in Vietnam.”

Siemens Gamesa has been expanding in the Asia Pacific markets since the 1980s and has installed more than 8.4 GW of onshore turbines in China, Pakistan, Japan, South Korea, Indonesia, the Philippines, Thailand, Australia and New Zealand. In the offshore segment, the company successfully completed the installation of Taiwan’s first offshore wind power project in 2019 (128 MW) and in addition reached close to 2 GW of firm orders. The company also signed preferred supplier agreements for an additional 755 MW combined volume in Japan and Taiwan.

MORE INFO www.siemensgamesa.com

CONSTRUCTION

Vestas supplies turbines for Akita Noshiro project

Vestas has received a 139-MW order from MHI Vestas Offshore Wind to supply 33 Vestas V117-4.2MW typhoon variant turbines for Akita Noshiro Offshore Wind Farm Project. Located in Japan’s northern Akita prefecture, the wind farm will be the first utility-scale offshore project in Japan.

The wind farm is owned by Akita Offshore Wind Corporation, a special purpose company led by Marubeni Corporation, with additional Japanese project sponsors. MHI Vestas Offshore Wind will be responsible for the overall construction of the project.

The V117-4.2 MW Typhoon turbine offers maximum energy production

in medium- to high-wind speeds. It strengthens the 4-MW platform’s performance in extreme wind conditions expanding reach into areas with very strong wind and typhoon type weather. Specifically designed for the Japanese climatic conditions, this technology has fulfilled all local certification requirements and can be

applied for both onshore and offshore projects.

“We are happy to be able to support MHI Vestas, our joint venture that focuses on offshore wind, in their first firm order in Japan,” said Clive Turton, president of Vestas Asia Pacific. “This order showcases Vestas’ experience in Japan and our comprehensive turbine



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Akita Noshiro Offshore Wind Farm Project will be the first utility-scale offshore project in Japan. (Courtesy: MHI Vestas Offshore Wind)

portfolio to have the right turbine variant to fit the market's needs."

Vestas installed its first turbine in Japan in 1995 and has since installed a total of 629 MW.

"Japan is an important market to us, and we will continue to work closely with our customers and partners to offer best-in-class renewable energy solutions to support Japan's clean energy transition," said Netoshi Kuriyama, vice president of Sales and Japan Country Manager for Vestas. "With wind becoming a more important energy source in Japan, we are witnessing drastic increase in activities."

Turbine delivery is scheduled in the second half of 2021 and installation is expected to start in 2022.

MHI Vestas Offshore Wind is a joint venture between Vestas Wind Systems A/S and Mitsubishi Heavy Industries.

MORE INFO www.vestas.com

CONSTRUCTION

Two PEMA production automation lines delivered to Taiwan

Pemamek has delivered two PEMA production automation lines, designed for foundation pin pile production, to

CSBC Corporation, Taiwan.

The investment is a part of CSBC's business development initiative to become an offshore wind-energy turnkey provider and expand its operations in the national offshore wind-energy markets.

The modern production automation solutions will enable CSBC to significantly increase its competitiveness,

but also boost manufacturing capacity and end-product quality.

"We are glad to cooperate with experienced production solution provider for the wind energy sector," said Leo Chen, executive vice president for CSBC Corporation, Taiwan. "This investment will reinforce CSBC's position as the key player in the Taiwanese offshore wind energy markets and support the company to take a major leap towards future goals."

The delivery included two extensive PEMA production automation lines designed to manufacture pin piles for offshore jacket foundations. The technologically advanced lines have the capacity of processing pin piles up to 350 tons and 90 meters.

The PEMA production line for foundation pin piles include:

- ▶ Three longitudinal seam welding stations.
- ▶ Two assembly stations capable of welding internal circular seams.
- ▶ Two welding platforms that weld simultaneously with two welding heads.
- ▶ Integrated heavy-duty roller beds with polyurethane rollers.



The PEMA production automation lines have the capacity of processing pin piles up to 350 tons and 90 meters. (Courtesy: Pemamek)

▼ Hi-tech PEMA WeldControl 500 control system with laser-tracking, designed for multi-pass welding.

In addition to the machinery, the agreement includes training, production start-up support, preventive maintenance package, and local service support with an authorized PEMA service partner.

Manufacturing with the PEMA production lines has already started at full speed as CSBC will supply a significant number of foundation pin-piles for Ørsted's 900-MW Greater Changhua, scheduled for 2021.

MORE INFO www.pemamek.com

▼ CONSTRUCTION

Zadok Technologies hires new VP of Operations

Quality Companies, the global offshore and onshore construction, fabrication and electrical and instrumentation company, has appointed Wayne Lacey as vice president of operations for Zadok Technologies.



Wayne Lacey.
(Courtesy: Quality Companies)

Based in Houston, Lacey will be responsible for supervising and managing the sustainability

and profitability of all of Zadok Technologies' operational procedures.

Lacey joins Zadok Technologies from his role as president of Cotech IRM Services Inc., where he was responsible for the company's launch and successful growth since 2007.

Previously, he served in a number of project and operational management roles in the oil and gas industry around the globe.

"Wayne brings a wealth of leadership, project management, and problem solving skills to Zadok Tech-

nologies, having previously grown a start-up company into a successful, multi-million dollar corporation," said Clay Nunnally, CEO of Quality Companies. "His entrepreneurial spirit, along with his global breadth of experience, promises to bring great value to the Zadok Technologies brand. We welcome him to the leadership team."

"Having successfully managed people, projects, and assets across Asia, Africa, Europe, and the Americas, I am excited to now bring my experiences to Zadok Technologies – an international leader in instrumentation and electrical, testing and inspection, fabrication and telecommunication services," Lacey said. "I look forward to the challenges and triumphs that lie ahead."

Lacey holds a degree in psychology from the University of Phoenix.

MORE INFO qualitycompanies.com

▼ INNOVATION

Brüel & Kjær Vibro launch new condition monitoring field device

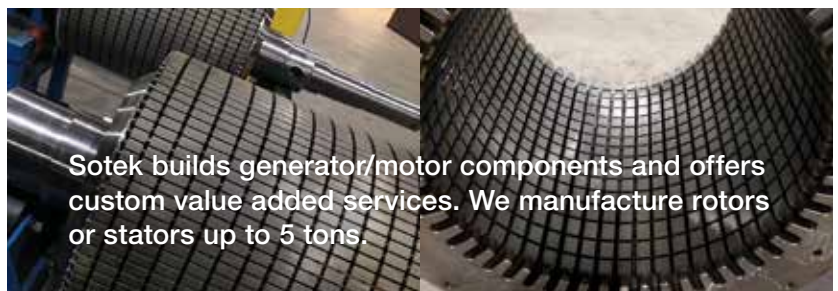
Brüel & Kjær Vibro, one of the leading worldwide independent suppliers of condition monitoring solutions for rotating machinery, has launched its next-generation VCM-3 condition monitoring platform for a wide range of industries.

The VCM-3 is designed to increase the uptime and reduce overall life-cycle costs of pumps, fans, motors, gearboxes and many other types of machines, while increasing reliability.

The field-proven VCM-3 is a 12-channel data acquisition hub targeted at full featured monitoring of auxiliary machines, balance-of-plant (BOP) non-critical machines and other assets in industries where



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The VCM-3 is designed to increase the uptime and reduce overall life-cycle costs of pumps, fans, motors, gearboxes and many other types of machines, while increasing reliability. (Courtesy: Brüel & Kjær Vibro)

cost-effective condition monitoring is required without machine protection. It features enhanced condition monitoring measurement techniques, easy system integration, built-in cyber security, and simple IT solution installation.

“The VCM-3 is designed to end any frustration monitoring your BOP and smaller, less critical machines,” said Albert Vontz, head of business unit industrial at Brüel & Kjær Vibro. “It is a more reliable and secure alternative to difficult walk-around monitoring rounds, and cost-effectively fills the gap between portables and rack-based systems. The VCM-3 has a powerful data acquisition and processing unit that provides a scalable platform for expansion, customization and development of future new monitoring methods.”

Users with all levels of in-house monitoring expertise can operate the platform’s diagnostic tools.

Key benefits of the platform include:

- ▀ Simultaneous input channels with high sampling frequency.
- ▀ Very easy to install.

- ▀ Robust cyber security.
- ▀ Internal (device) OPC UA server and storage.

A worldwide network of sales and service offices and partners supports the VCM-3.

MORE INFO www.bkvvibro.com

▀ INNOVATION

Leosphere launches Windcube Insights analytics software

Leosphere, a Vaisala company that specializes in developing, manufacturing, and servicing turnkey wind Lidar (light detection and ranging) instruments for wind energy, aviation, meteorology, and air quality, recently launched Windcube Insights at Wind Operations Europe 2020 in Munich.

Windcube Insights is a proprietary data analytics software designed specifically for the Windcube Nacelle (previously called Wind Iris) na-

celle-mounted Lidar that simplifies the wind turbine power performance testing process.

“This new tool empowers operators with International Electrotechnical Commission (IEC)-compliant data to verify that turbines are performing as promised so they can maximize the energy output of their wind farm,” said Alexandre Sauvage, CEO of Leosphere. “The easy-to-use software allows operators to perform power performance testing and suggest operational optimization — quickly, accurately and efficiently.”

Windcube Insights enables true and fully transparent data analysis and reporting for Windcube Nacelle customers — all within a web-based user interface. The software is the first in the industry to enable the upload of both Windcube Nacelle Lidar and supervisory control and data acquisition (SCADA) turbine performance data with a simplified data synchronization process.

The method of operation:

- ▀ A variety of standardized Lidar and turbine data filters are available and fully configurable by the user, simplifying preparation of the data sets.

- ▀ The software leverages those data sets to calculate and display the power curve, and the complete set of IEC requirements can be applied with embedded guidelines that reference the proper IEC standard sections, making the service fully transparent and understandable.

- ▀ The production data, along with standardized uncertainties, are calculated and can be exported in the form of a traditional report table.

The handling of IEC standard requirements for issuing a power performance test (PPT) is complex, requires deep expertise, and represents a potential source of error. However, such testing is necessary for regulatory compliance, warranty verification, and turbine performance verification during both the development and operations phases.

Determining the power curve of a wind turbine in accordance with recognized standards is valuable because



Windcube Insights enables true and fully transparent data analysis and reporting for Windcube Nacelle customers — all within a web-based user interface. (Courtesy: Vaisala)

the power curve is one of the most important characteristics of the economic value of a wind project.

The Windcube Nacelle Lidar measures the wind conditions at hub height ahead of the turbine, enabling operators and wind turbine original equipment manufacturers (OEMs) to efficiently and accurately assess performance and optimize design and production efficiency. When fully integrated within the wind turbine, Windcube Nacelle enables load reduction, design costs reduction, and continuous production gains.

Seeing the global energy demand accelerate at its fastest pace in more than a decade, wind energy and other clean energies are increasingly becoming further engrained into the world's equation for energy demand.

Since 2010, the size of the global wind power market has increased by 35 percent, and the global market is expected to approach \$ 125 billion by 2030.

“Without Windcube Insights, Lidar users would have to build their own software programs to analyze the data being collected by the nacelle Lidar and the wind turbine,” Sauvage said. “We’ve simplified the process of applying filters, calculating the uncertainties described in recognized IEC standards and displaying data, ultimately creating a simple way to support the

utilization of nacelle-mounted Lidar following IEC standards and industry best practices. Windcube Insights is just another example of Leosphere’s commitment to innovation and to making our customers’ lives better by introducing tools to help them maximize efficiency and productivity.”

MORE INFO www.vaisala.com

MAINTENANCE

PSG unveils Checkmate Xplorer harness

Pure Safety Group™ (PSG), manufacturer of fall protection equipment used by workers at height, has introduced the new Checkmate® Xplorer industrial full body harness for fall protection to the U.S. market.

The harness, designed to be more comfortable than conventional harnesses during periods of suspension and frequent loading, features visual alert stitching, an intuitive way for the user to understand the correct way to wear the harness. Its limited slip dorsal D-ring has a precise amount of vertical adjustment built in and is designed to keep the D-ring in place after multiple loadings. Its large front

ring allows for multiple attachments and uses a lightweight aluminum quick-connect buckle to ensure a safe final connection.

Hardware on the Xplorer is specifically designed to be ergonomically suited to the product’s functions, reducing wear on the webbing, allowing easy connections, and providing critical pivot points for a greater range of motion. For maximum comfort, the harness features unique curved webbing that follows the contours of the body for a closer fit and an innovative sub-pelvic assembly for greater support and increased comfort during suspension. The Xplorer meets or exceeds the requirements of OSHA 1910.140, OSHA 1926.502, ANSI Z359.11-2014, EN 361:2002, EN12277:2007 Type A, and EN358:2000.

MORE INFO www.puresafetygroup.com



The Checkmate Xplorer industrial body harness is designed to be more comfortable than conventional harnesses during periods of suspension and frequent loading. (Courtesy: PSG)