

The joint industry project encompasses concrete structures, geotechnics, and floating technologies and welcomes additional partners. (Courtesy: DNV)

#### **CONSTRUCTION**

# DNV launches joint industry project Concrete FLOW

DNV, the independent energy expert and assurance provider, recently launched a new Joint Industry Project (JIP) called Concrete FLOW that will optimize requirements for concrete floaters specifically tailored for floating offshore wind farms.

At the kick-off meeting, 14 key partners committed to redefining global standards for the production of concrete floaters in the offshore wind industry. The collaborative results are earmarked for incorporation into future DNV service documents. Concrete FLOW aims to drive innovation by uniting key industry players.

"This initiative symbolizes a collaborative effort to set new standards and challenge existing ones, laying the groundwork for the future of floating wind," said Kim Sandgaard-Mørk, executive vice president for renewables certification at DNV.

Concrete floaters pose special challenges, such as leak proofness, which govern the design of the floater. Balancing controlled cracking of concrete structures to maintain floatability and ensure long-term durability is crucial. DNV sees concrete floaters as a cost-effective and environmentally friendly alternative to steel floaters, particularly for larger turbines.

Notably, Concrete FLOW is the first JIP dedicated to concrete floaters for

floating offshore wind. Its objective is to customize standard requirements for industrial production to enable serial production. The goal is to reduce costs and streamline the manufacturing process.

The project encompasses concrete structures, geotechnics, and floating technologies and welcomes additional partners.

"While the DNV-ST-0119 standard includes design provisions for concrete floaters, some requirements draw from oil and gas experience and others from bottom fixed wind farms; they need refinement and optimization to be used specifically for floating offshore wind developments," said Stefan Baars, renewables certification head of section for concrete structures & geotechnics at DNV. The team anticipates conducting activities over one and half to two years, gathering more support offers to solidify the JIP's scope and impact.

MORE INFO www.dnv.com

## **CONSTRUCTION**

## Pemamek names heavy equipment director

Pemamek recently appointed Christian Landau as the new Director of the Heavy Equipment segment. Heavy



Christian Landau is Pemamek's new director of the heavy equipment segment. (Courtesy: Pemamek) Equipment is one of Pemamek's six business sectors.

In his new role, Landau will be responsible for the segment's strategy, developing partnerships, and identifying market trends and customer needs. This role is crucial in expanding Pemamek's global role

as a complete provider of robotic welding solutions.

Landau brings significant experience in machine and overall solution sales, with a career spanning 22 years in sales and marketing leadership roles at Carl Cloos Schweisstechnik. For the past two years, Landau has worked as the sales director at Graebener.

"We warmly welcome Christian to his new role, where he will contribute to the success and global growth of PEMA robotic welding solutions," said Jaakko Heikonen, vice chairman of the Pemamek Board. "Christian has strong experience in solution sales within robotics in the international environment, which has led to success in his previous roles, most recently at Graebener and, before that, at Cloos. Heavy equipment is one of our fastest-growing business sectors, and there is great potential for Pemamek in this field. That's why we are extremely pleased with this appointment."

MORE INFO www.pemamek.com

### CONSTRUCTION

# GZA completes consulting for wind terminal

GZA GeoEnvironmental, Inc., a multi-disciplinary firm providing geotechnical, environmental, ecological, water, and construction management services, has completed a full suite of geotechnical, marine, and coastal consulting services in support of design and permitting Crowley Wind Services' Salem Offshore Wind Terminal. Design and permitting are now well underway with a goal of breaking ground in the first quarter of 2024. The construction timetable will be developed over the coming months and is anticipated to take 24-30 months.

The terminal, on the 42-acre site of a former coal- and oil-fired power plant on Salem Harbor in Massachusetts, will provide new heavy-lift deployment and logistics services for offshore wind operations, including staging and partial assembly of offshore wind-turbine components, berthing and moorage of wind-turbine installment vessels (WTIVs) for loadout operations as well as heavy transportation vessels (HTVs) for inbound deliveries.

Working as a subcontractor to AE-COM, the lead design consultant, GZA successfully managed and executed a phased approach for geotechnical site investigations consisting of land borings, water borings, cone penetrometer test (CPT) soundings, test pits, and geophysical surveying and mapping. GZA worked with several local laboratories to complete an extensive soil and rock laboratory testing program



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Crowley Wind Services' goal is to break ground on the Salem Offshore Wind Tunnel by the first quarter of 2024. (Courtesy: GZA)

and produce a subsurface profile and Geotechnical Data Report.

GZA also provided marine and coastal consulting services to AECOM during the design phase, including regulatory compliance review for coastal resilience design, metocean analyses, and development of wave and flood loading models that were used to design the new waterfront infrastructure.

"GZA has had decades of experience working at the Salem Harbor site, including performing geotechnical and related engineering services for the replacement of the coal power plant with a cleaner-running natural gas generating station," said Patrick Sheehan, GZA president and CEO. "GZA's proud and honored to have completed our scope of services for the next transformation of the site as a Crowley Wind Services terminal that will play a critical role in support of the development of clean, renewable offshore wind for New England, and add to our broad portfolio of offshore wind projects in New England and beyond."

MORE INFO www.gza.com www.salemoffshorewind.com

#### **CONSTRUCTION**

# Collett completes Drumlins wind farm in Ireland

Collett Transport has delivered 88 wind turbine components for Drumlins Park wind farm project in Ireland.

Working on behalf of GE, Collett played a pivotal role in transporting blade and tower section components for eight GE 158RD turbines. Each turbine included 11 components: three blades, three blade tips, and five tower sections for a total of 88 components delivered. Drumlins Park Wind Farm, one mile south of Newbliss in County Monaghan, is under construction by Energia Renewables, part of Energia Group, which owns and operates 16 wind-farm sites across Ireland, generating more than 350 MW of green electricity.

Prior to starting the deliveries, Collett undertook a test run to identify potential challenges along the transportation route. This approach identified essential modifications, including tree pruning and adjustments to street furniture, ensuring a safe delivery process.

Throughout the project, Collett deployed a dedicated team of eight professionals, including a project manager overseeing all deliveries, three truck drivers, three escort vehicle drivers, and a tow truck driver.

In collaboration with Collett, Edwin Sunderland at Exceptional Load Services Ltd played a crucial role in securing necessary permits and liaising



The Drumlins Wind Farm is expected to generate up to 49MW of renewable energy. (Courtesy: Collett Transport)

with local authorities, including coordinating with Garda escorts.

Collett employed its specialized fleet of trailers, using super wing carriers for the transportation of 65-meter-long blades, flattop trailers for the additional 15-meter-long blade tip and tower clamp trailers for various tower sections. The longest tower sections measured 28-meter-long and the heaviest weighed 62 metric tons.

All components were loaded at Belview Port in Waterford and strategically transported during night-time deliveries to minimize traffic congestion. Covering a distance of 199 miles, the journey took nine hours.

The Drumlins Wind Farm, expected to be operational in 2024, is anticipated to generate up to 49 MW of renewable energy. This output is projected to meet the electricity demands of about 34,000 Irish households and offset 58,000 metric tons of CO2 annually, reinforcing the commitment to a greener and more sustainable future.

## CONSTRUCTION

## Vestas, DTEK sign MOU on Ukraine's largest wind project

Vestas and DTEK recently signed a memorandum of understanding (MOU) to collaborate on the build out of the second phase of the Tyligulska wind project in the southern part of Ukraine. The agreement outlines the conditions and desire to build the 384-MW second phase of the Tyligulska wind project. The first phase of Tyligulska wind project comprised of 114 MW and was successfully commissioned in the spring of 2023.

"We are very pleased to be expanding our partnership with DTEK again and build the Tyligulska project to support the reconstruction of Ukraine's energy sector and show that Ukraine is open for business," said Henrik Andersen, CEO of Vestas. "The project is becoming a reality under extraordinary circumstances, and we look



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Uzbekistan and ACWA Power officials at the project groundbreaking. (Courtesy: ACWA Power)

forward to working with DTEK on the final steps towards financial closure. Infrastructure projects of this size in Ukraine currently require additional risk guarantees, and we believe supporting a project as ambitious as this can re-emphasize the EU's support to Ukraine. I want to recognize the visionary leadership of DTEK — thank you for the trust you have shown in Vestas."

"We are delighted to once again be working with Vestas at Tyligulska on this ground-breaking project, and I would like to thank Henrik Andersen and the team at Vestas for their unwayering support as well as the European Commission and governments of Denmark and Ukraine for their inspiring leadership," said DTEK CEO Maxim Timchenko. "(The) memorandum of understanding is a declaration of confidence in DTEK and Ukraine, and a signal that we and our partners will not wait for the end of the war to invest in a greener future. Today, we are busy restoring not only what the occupier is

destroying, but also building a new energy system. The Tyligulska wind farm will significantly increase the stability of our energy system, help strengthen the country's energy security, and enable Ukraine to become a decarbonization leader that can act as an energy hub for Europe."

Together, the first and second phases of the wind project will have a capacity of 498 MW with a total of 83 V162-6.2 MW wind turbines in 6.0 MW operating mode, making it the largest wind-energy project in the country. The cooperation between Vestas and DTEK on this project goes back to 2021 when the second phase of the Tyligulska project was first announced. When the war broke out, the wind project was put on hold. With the signing of the MOU, the two parties reconfirm their joint commitment and resilience to continue to build out the renewable energy sector in Ukraine.

If and when the agreement translates into a firm and unconditional order, Vestas will disclose this in accordance with the company's disclosure policy.

MORE INFO www.vestas.com

#### CONSTRUCTION

# ACWA breaks ground on green-hydrogen project in Uzbekistan

Saudi-listed ACWA Power, one of the world's largest private water desalination companies, leader in energy transition, and first mover into green hydrogen, has broken ground on the first phase of a 3,000 metric-ton-per-year green-hydrogen project in Uzbekistan.

The project was inaugurated by Shavkat Mirziyoyev, president of Uzbekistan; and His Excellency Khalid Al Falih, Minister of Investment, Saudi Arabia. The event was attended by the Prime Minister Abdulla Nigmatovich Aripov, the Ministry of Finance, governor of Syrdarya region, and Uztransgaz chairman; and Mohammad Abunayyan, founder and chairman of ACWA Power.

"We are honored that the leadership of Uzbekistan has bestowed their trust in our capabilities to develop the country's first green hydrogen project," Abunayyan said. "This marks a significant milestone in the history of Uzbekistan's energy revolution, and ACWA Power is honored to be leading the charge. I would like to extend my gratitude to all those who have contributed to the success of these projects and reaffirm our enduring commitment to continue our collaboration and investment in Uzbekistan's bright, sustainable future."

The project will be developed in two phases: The first phase, a 3,000-metric-ton green ammonia pilot project, is already underway following the signing of the hydrogen purchase and power purchase agreements in May 2023. Once the second phase is complete, 2.4 GW of wind energy will power the production of 500,000 metric tons of green ammonia per year.

When completed in full, this will be ACWA Power's second utility-scale green-hydrogen project after the NEOM Green Hydrogen Project in Saudi Arabia, which is a joint venture between ACWA Power, NEOM, and Air Products. Uzbekistan is ACWA Power's second-largest market in terms of investments, underscoring the company's long-standing commitment to the country with a portfolio including 12 projects, 11 of which are fully-renewable.

MORE INFO www.acwapower.com

#### **INNOVATION**

## Nuvvon teams up with Rutgers on energy storage

Nuvvon, innovators in alternative solid-state battery materials, is partner-



Nuvvon's energy battery materials and batteries are ideally suited for energy storage applications. (Courtesy: Nuvvon)

ing with Rutgers EcoComplex-Clean Energy Innovative Center and its WindIgnite Offshore Wind Supply Chain Accelerator Program to advance renewable energy storage and sustainable development. Through the partnership, Rutgers will focus on developing and commercializing Nuvvon's solutions in energy storage that contribute to the development of a sustainable Offshore Wind (OSW) supply chain and address environmental challenges.

Nuvvon's energy battery materials and batteries are ideally suited for energy storage applications due to cheaper cost per unit energy compared to current technology lithium-ion batteries. These batteries also can pack more energy into a given volume or weight. Unlike liquid electrolyte batteries, Nuvvon technology is fire resistant for safe use close to buildings, simplifying the supporting local grid network.

"Nuvvon is determined to be in the vanguard of this energy revolution in its home state of New Jersey, providing batteries and battery materials to support wind and solar energy generation," said Jonathan Lex, Nuvvon Inc.'s chief operating officer. "We identify with Rutgers' aims for energy justice with fair access for all to cheaper energy."

"Energy storage is essential in efficient utilization of renewable energy,"

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said Serpil Guran, director of Rutgers EcoComplex. "The collaboration will help drive innovation in renewable energy storage where Nuvvon Inc. can play an essential role."

The need to properly value the high performance of battery storage systems, including their accurate and fast frequency response, is one aspect of a broader need for wholesale electricity market reform in the face of rapidly evolving power systems.

MORE INFO www.nuvvon.com

#### ▼ INNOVATION

# Appleyard Lees data: Wind innovation addresses challenges

Emerging innovation in wind power is addressing the need to improve existing technology while tackling the challenges of the new – including AI – according to the latest patent data analysis from intellectual property firm Appleyard Lees. The company's newly-launched *Inside Green Innovation: Progress Report Third Edition* — which analyzes patent filings related to technologies developed to address several key environmental issues facing the world — reveals a change in wind direction for technologies underpinning the renewable energy source.

While traditional wind-turbine innovation as reflected by new patent applications has plateaued in recent years, there's been a notable spike in innovation for floating wind turbines, though there is also evidence of new developments in remote maintenance for existing turbine technology.

"It's clear that demand for wind-energy generation is growing, as is the amount of energy produced by wind-related technologies," said Adam Tindall, Appleyard Lees partner and patent attorney. "And as artificial intelligence and machine learning are starting to feature in almost every aspect of life, the wind-energy sector is no different."

The Global Wind Energy Council's Global Wind Energy Report 2023 noted that total installed global capacity will reach 1 TW this year; the report projects this to reach 2 TW by the end of 2030, showing the evident increase in demand for wind energy. And, in the U.K., electricity generation from wind power increased by 715 percent from 2009 to 2021, with turnover from wind energy exceeding 6 billion.

Floating wind turbines have seen a steep rise in new patent applications, increasing from 1,061 in 2016 to 1,125 in 2021. However, despite a record-breaking year in 2021 for offshore wind energy, with 21.1 GW of capacity commissioned, only 57 MW came from floating wind technology, suggesting scope for further investment in innovation.

In the field of remote and automatic repair and monitoring of existing wind





Distgen's refurbished community-scale Vestas wind turbine in Brayton Mill, Cumbria. (Courtesy: DistGen)

turbines, patent applications have seen peaks and troughs in the past decade but remained constant from 2020-2021. The need for safer working practices, both at height and in poor weather conditions, has encouraged innovation in, for example, drones and robots to replace direct human activity on turbines.

And the march of the machines is visible also in rising patent filings for AI-related technologies in wind power, including automatic blade adjustment, power distribution and construction methods.

"The comparatively low baseline of patent applications in both floating wind turbine and remote maintenance technologies suggests there are innovation and associated patent opportunities to harness in the area of wind power," said Paul Beynon, patent attorney and senior associate. Companies active in wind-power innovation include GE, Siemens Gamesa, and Vestas – collectively accounting for most patent filings from 2018-2021. LM Wind Power, a company that supplied its first turbine blades to the Orkney Islands' Windmatic turbine in the 1970s, filed its first wind energy patent in the past five years.

The Inside Green Innovation: Progress Report — Third Edition's focus on wind energy was chosen because of its prominence in the global green innovation conversation, as referenced in the OECD's and United Nations' 17 Sustainable Development Goals and the World Intellectual Property Organization (WIPO) Green Innovation Database, a global innovation catalogue that connects needs for solving environmental or climate change problems with sustainable solutions.

MORE INFO appleyardlees.foleon.com/ igipr3/inside-greeninnovation-progressreport-third-edition

## **INNOVATION**

# DistGen adopts turbine health platform Windscope

DistGen, an onshore wind energy independent power producer (IPP) based in the U.K., has adopted Windscope's hardware-free platform designed to maximize wind turbine health and availability.

By bringing an advanced operations and maintenance (O&M) approach to its small-scale, distributed wind portfolio, DistGen has underscored its commitment to revolutionizing the onshore wind industry by making the most of older assets, propelling the transition from centralized fossil fuel generation to decentralized, sustainable energy solutions.

DistGen operates as a small distributed operator, managing a fleet of community-owned wind turbines. For these assets, maintaining operational availability and an efficient O&M strategy is essential in terms of clean electricity generated and financial returns.

Windscope's software platform adds a new dimension to DistGen's operations, integrating with a number of technologies in-house, and allowing the operations team to take advantage of predictive maintenance approaches more commonly deployed for largescale wind portfolios. The platform will enable DistGen to optimize its wind-turbine health and availability through real-time monitoring, condition-based maintenance, and data-driven insights.

"A key aspect of our mission is the refurbishment and operation of wind turbines that have surpassed their initial operational life," said Darran Potter, operations director at DistGen. "This approach not only proves to be financially prudent but also significantly reduces the carbon footprint associated with manufacturing new turbines. There is little room for error in this industry — Windscope's versatile platform allows us to leave even less room for error by efficiently managing our distributed portfolio, ensuring the longevity and reliability of our turbines."

"Windscope is thrilled to provide DistGen with the advanced tools they need in their mission to democratize the ownership of generating assets and contribute to the growth of distributed renewable generation," said Joe Donnelly, Windscope CEO. "Our technology is designed to empower operators of all sizes, and this partnership exemplifies how tools such as advanced turbine performance metrics and AI powered fault diagnosis can be applied to enhance the performance and extend the lifetime of onshore wind assets. AI powered monitoring, data integration, and predictive maintenance, implemented correctly, provides significant return on investment for megawatt to multi gigawatt-scale portfolios."

Windscope's scalable platform can be deployed by asset managers across large and technologically diverse portfolios; DistGen's adoption of this tool sets the stage for a more resilient, sustainable, and locally impactful future in the onshore wind energy sector.

MORE INFO www.distgen.co

# Veidmuller USA expands PCB product portfolio

Weidmuller USA, a leading provider of smart industrial automation and connectivity products and solutions headquartered in Richmond, Virginia, recently introduced its new OMN-IMATE 4.0 PCB Terminal Blocks in the MTS 5 product series. These innovative terminal blocks mark an expansion of



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The OMNIMATE 4.0 Terminal Blocks provide the most efficient wiring and signal transmission in many industrial sectors. (Courtesy: Weidmuller USA)

the company's PCB product portfolio.

Featuring Weidmuller's SNAP IN technology, the OMNIMATE 4.0 Terminal Blocks provide the most efficient wiring and signal transmission in many industrial sectors.

With this new technology, a wide variety of conductors can be connected quickly without the need for tools and wire-end ferrules, making OMNIMATE ideal for the full spectrum of automated processes.

Some industry-leading features of the new OMNIMATE 4.0 Terminal Blocks include:

▶ Pitch 5.00mm, vertical and horizontal orientations in 2 through 12 positions. An optical and acoustic safety indicator shows when wiring is complete.

► Easy handling of the push-in buttons when rewiring is necessary.

All parts are received wire-ready with open clamping point.

✓ Ready-to-Robot optimization for fully automated wiring processes.

▼ Options for Screw, Push-In, and SNAP IN connectivity, offering customers a wider range of choices for the connection technology that works best for them.

"Customers can now connect their

devices more efficiently because the OMNIMATE terminal blocks are fast, flexible and reliable," said John Froustet, director, Device & Field Connectivity Division Americas, Weidmuller USA. "Due to OMNIMATE's modular design and digitalized configuration through the web configurator, there are infinite design possibilities to meet the automation and connectivity needs of any business."

MORE INFO www.weidmuller.com

#### MAINTENANCE

## Emerson app optimizes valve maintenance

Emerson recently announced the Plantweb Insight Valve Health Application, a software tool that combines Fisher control valve expertise with advanced analytic algorithms. The new app makes it possible for users to visualize an entire connected fleet of valves, while prioritizing actions based on the health index of each valve. This helps plant personnel optimize valve repair activities, resulting in faster and better maintenance decisions, leading to reduced downtime.

Most process plants and facilities have hundreds of control valves installed and operating in various applications. These valves have multiple parts that must frequently move in concert to regulate flows of process media, with some of these parts coming into constant, direct contact with the media.

These operating conditions create wear and tear, requiring maintenance personnel to track the condition of each valve. This is typically done by examining each valve individually, either locally or remotely, a time-consuming endeavor that requires a high level of expertise to ascertain valve health and follow-up action.

Valve Experts

Plantweb Insight uses custom data analytics to provide timely plantwide health indicators for improved safety, maintenance, and performance. (Courtesy: Emerson)



Guardian's cable climbing system is available in galvanized steel. (Courtesy: Guardian)

The Plantweb Insight Valve Health Application speeds and simplifies this control valve monitoring task by providing a user-friendly interface, with easy-to-understand and intuitive graphics. The app includes Emerson's Valve Health Index, which shows plant personnel the level of health for each valve. The Valve Health Index allows users to enter information regarding their plant's processes, including criticality of the valve and financial impact if the valve were to fail, making the index more informative.

The app allows users to prioritize repair and maintenance activities with five different indicators — repair urgency status, valve health index, financial impact, criticality, and NE107 alert status — to meet specific needs. The app includes explanations, recommendations, and suggested time to take action. This last indicator is new to the market and is one of the app's exclusive features.

"Plants and facilities harnessing all the functionalities of the Plantweb Insight Valve Health Application will experience reduced analysis time, faster troubleshooting, and improved prioritization of maintenance actions," said Jaime Alvarado Millan, software product manager for flow controls with Emerson's final control business. "The result will be fewer man-hours required for repairs and maintenance, increased uptime, and fewer unplanned shutdowns. These and other benefits will increase productivity, lower costs, and improve profitability."

**MORE INFO** www.emerson.com/valvehealthapp

## F MAINTENANCE Guardian shipping new climbing system

Guardian recently announced its new C7 Cable Climbing Sleeve and Cable Climbing System is available in the U.S. and other regions, following OSHA/ ANSI regulatory standards.

The C7 Cable Climbing Sleeve is a patent-pending fall arresting sleeve designed to be up to 25 percent lighter and to provide unrivaled climbability. With its true, easy, one-handed operation, users can attach, detach, and re-attach the sleeve in seconds. It offers uninterrupted ascent and is engineered to mitigate nuisance lockups on descent after long days at height. It's designed with a double-action gate opening mechanism that ensures the sleeve will stay securely attached to the cable. The C7 Cable Climbing Sleeve's built-in energy absorber and anti-panic locking cam ensures safe arresting performance in the event of a slip or fall.

The Cable Climbing System offers users easy installation with superior energy-absorbing properties, making it an ideal personal fall arrest system (PFAS) solution for vertical applications. Its patent-pending mounting clamps reduce needed installation hardware by up to 25 percent, offering easier installation and reducing the risk of dropped objects at height. The system also features a patent-pending energy absorbing component that provides superior arresting forces in the event of a fall.

"We designed the system and C7 Cable Climbing Sleeve with the end user as our primary focus," said Kevin Fitzpatrick, Guardian's senior product manager. "We wanted workers to not

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The Germany order includes seven V162-6.2 MW wind turbines. (Courtesy: Vestas)

only maintain a safe climbing experience but also do so with ease. When used together, the Cable Climbing Sleeve and System makes climbing easier and quicker for a better all-around experience."

The C7 Cable Climbing Sleeve and Cable Climbing System are qualified to ANSI Z359.16 and OSHA 1910.26 & 1926.1053 when used together. The Cable Climbing System is available in galvanized steel utilizing a 3/8", 1x7 strand, galvanized steel solid core cable.

MORE INFO guardianfall.com

#### MANUFACTURING

## Vestas gets order for Germany project

Vestas has received a firm order from SAB WindTeam GmbH for the Bockenem project in Lower Saxony, Germany.

The order consists of seven V162-6.2 MW wind turbines and includes supply, delivery, and commissioning of the turbines. Upon completion, Vestas will service the turbines under a 25-year Active Output Management 5000 (AOM 5000) service agreement designed to ensure optimized performance of the assets.

"We are pleased to build upon our strong track record to successfully execute projects with SAB; this project is another great example of the collaboration between SAB and Vestas," said Sulai Fahimi, vice president sales Central Europe in Vestas.

"We would like to thank the whole SAB team for their trust in Vestas and our products, and we are looking forward to the upcoming projects in the joint pipeline."

"The Bockenem wind farm is the next project in our intensified collaboration with Vestas," said Lars Niebuhr, one of SAB WindTeam's managing directors. "The project is a very important milestone in our presence in Lower Saxony and emphasizes our commitment as a reliable partner for all local stakeholders involved."

Turbine delivery is expected to begin in the third quarter of 2024 with commissioning scheduled for completion in the second quarter of 2025.

MORE INFO www.vestas.com

#### MANUFACTURING

## Vestas wins 108-MW order in South Africa

Independent power producer Red Rocket has placed a 108-MW order for the Witberg Wind Farm, to be in Western Cape, South Africa. The contract includes the supply and installation of 24 V136-4.5 MW wind turbines, as well as a 15-year Active Output Management 5000 (AOM 5000) agreement.

"Red Rocket recently affirmed its position as a leading Independent Power Producer in South Africa by successfully achieving financial close for the Witberg Wind Farm, located in the Western Cape with a 108-MW nameplate capacity," said Matteo Brambilla, CEO Red Rocket.

"This project will be the largest private wind farm constructed in South Africa to date, and it will contribute significantly to South Africa's energy landscape.

The private off-taker for this venture is Sibanye Stillwater. For this historic project, we are partnering with Vestas and believe that renewable energy, such as wind power, is the key to a sustainable and greener future for the region."

"I would like to thank Red Rocket for their trust in Vestas' 4-MW platform," said Vestas Managing Director Novani Ganess-Johnson. "We are glad to see how the versatility of our portfolio continues to contribute to the country's energy transition. We are convinced that wind power can play a paramount role in achieving a more reliable, affordable, and sustainable energy mix in South Africa."

Turbine delivery is expected by the second half of 2024 and commissioning is planned for the first quarter of 2025.

Vestas leads the South African wind-power market with more than 1.4 GW of installed and under construction capacity.  $\prec$