DIRECTION

THE FUTURE OF WIND

X1 Wind's X30 prototype has delivered its first kWh to PLOCAN's smartgrid in the Canary Islands. (Courtesy: X1 Wind)

X1 Wind's X30 floating wind prototype produces first kWh

X1 Wind's X30 floating wind prototype, installed in the Canary Islands, has successfully produced its first kWh.

The milestone marks the world's only floating wind platform installed with a TLP mooring system, which reduces environmental footprint and improves compatibility with other sea uses. It further heralds Spain's first floating wind prototype to export electricity via a subsea cable.

First power was fed into PLOCAN's offshore platform smartgrid via a 1.4-kilometer underwater cable connected to a 20kV transformer. Local teams now enter the last phase of a test and verification program that started with the platform installation in November 2022, in preparation of the technology industrialization and certification for commercial scale projects now under development.

"First power represents a huge milestone for X1 Wind, and the 'lift-off' moment we've been building towards for many years," said Carlos Casanovas, X1 Wind CTO and co-founder. "The first kWh is always a symbolic moment for any new energy generation project, and for our team, partners, and supporters, it crystalizes the immense journey we've been on and the exciting path which lies ahead. Floating wind is set to play a vital role supporting the future energy transition, global decarbonization, and ambitious net-zero targets. (The) announcement marks another significant stride forward for X1 Wind accelerating towards certification and commercial scale ambitions to deliver 15MW platforms and beyond in deep-water sites around the globe."

The X30 platform is equipped with an adapted V29 Vestas turbine and ABB power converter. Another key design feature, developed through the EU-backed PivotBuoy Project, combines advantages of SPM and TLP mooring systems. The proprietary SPM design enables the floater to "weathervane" passively and maximize energy yields, with an electrical swivel ensuring electricity transfer without cable twisting. The TLP mooring system also reduces the seabed footprint, compared to traditional designs proposing catenary mooring lines.

"Now generating power, we've commenced a second phase to assess the floater behavior during operation," said X1 Wind's Electrical Engineering Manager Adrian Oliva. "This all forms part of X1 Wind's extensive testing verification program to fully validate the platform in real world operational conditions and de-risk our technology. The novel X30 platform is equipped with all the electrical systems that the commercial platforms will contain, including a commercial turbine, power converter, transformer, slip-ring and dynamic cable as well as our in-house SCADA system with multiple sensors to control and monitor the platform's behavior. All this data is being fed into our commercial scale design which is advancing fast working closely with certification body DNV."

"This marks a significant milestone for the Spanish floating wind industry," said Plataforma Oceánica de Canarias (PLOCAN) CEO Dr. José Hernéndez Brito.

MORE INFO www.x1wind.co

U.S. rule change equips developers for faster growth

Last month, the Biden administration set out new streamlined regulation for offshore wind development as it chases its highly ambitious installation target of 30 GW by 2030.

In the first major regulatory shakeup since 2009, the U.S. Interior Department will offer more flexibility on survey requirements, reform lease auctions, and improve the verification of project designs, it said. The new rules come as the Interior Department plans to hold up to four additional offshore lease sales by 2025 and aims to complete environmental reviews of at least 16 offshore wind projects by 2025, representing more than 20 GW of new capacity.

Subject to 60-day public consultation, the rule changes represent a "very big package of important incremental improvements" that is "long overdue," Seth Kaplan, Director of Governmental and Regulatory Affairs at Ocean Winds North America, told Reuters Events.

In particular, more flexibility on surveys in construction and operations plans (COPs) will simplify the permitting and approval process.

"The new rule adds flexibility in the timing of data submittal, which saves costs, and enables developers to do fewer unnecessary surveys," said Josh Kaplowitz, vice president of Offshore Wind at the American Clean Power (ACP) association.

The Interior Department will also clarify leasing criteria and release five-year leasing roadmaps, providing investors with much-needed certainty.

The rule improvements "will provide the necessary predictability to grow the domestic clean energy economy," Joris Veldhoven, CEO of Atlantic Shores Offshore Wind, told Reuters Events. The rule changes "give the industry certainty moving forward," an Equinor spokesperson said.

Under the proposals, developers will be allowed to submit a range of design parameters in their construction and operations plan (COP) and defer certain survey requirements until later in the development process.

This new approach is less prescriptive and more similar to the project design envelope (PDE) process used in Europe and would give developers greater flexibility to tweak their designs and incorporate the latest technology before installation begins.

Developers could install larger, more efficient turbines "without having to restart the process, so long as you were approved to use a larger model,"

Fern Communications managing director and co-founder Jennifer Cushion cuts the ribbon at the opening of a new office Aberdeen, Scotland. (Courtesy: OEG Offshore)

Kaplowitz said. Suppliers continue to release higher capacity turbines as developers seek a lower cost per megawatt.

The approval of Vineyard Wind, the U.S.' first large offshore wind project, was delayed when BOEM expanded the scope of the environmental review to take into account larger turbine considerations, previously unavailable fishing data, a new transit lane alternative, and cumulative risks from multiple offshore wind projects. The environmental review took three years to complete and the 800-MW project is due online in Massachusetts waters in 2024.

The new rules also remove the requirement for site assessment plans (SAPs) for meteorological buoys, providing further savings for developers.

Developers will also be allowed to pay the cost of decommissioning the asset at the end of its life incrementally over the lease term, rather than upfront as required currently, which will create significant savings over the life of the project.

BOEM estimates that the new rules will save U.S. offshore wind developers $1 billion over 20 years, mostly due to the change to decommissioning funding.

The rule changes will help clarify development processes and avoid some delays but the exact impact on project timelines is unclear. Approval processes will remain rigorous and can involve around a dozen federal agencies, industry sources said.

More specific timelines within the rules would help developers plan resources, Kaplowitz said.

"Adding these timelines could be very helpful in terms of making the length of the process more predictable," he said.

MORE INFO www.reutersevents.com/renewables/wind

OEG Offshore's Fern opens Aberdeen office

Fern Communications, an OEG Offshore company, has opened a new office in Aberdeen and appointed an experienced engineering team to service Scotland's mixed offshore energy sector.

Managing Director Jennifer Cushion and Technical Director Clive Cushion formed Fern Communications in 2002. OEG acquired the company in 2021. Fern's new facility is at Cairnrobin Business Park, Marywell, south of Aberdeen, and will act as a regional hub for the company to service its clients across the northeast of Scotland.

"Having premises in Aberdeen has been a dream of Clive and I for over 15 years," Cushion said. "Fern can now support customers, giving them the confidence that we are local with the ability to roll with them through the demands of the offshore industry."

The Fern Aberdeen team is headed by James Coverley, who is responsible for supporting key customers and delivering growth in the renewables and offshore energy sectors.

Fern recently won the contract award for Moray West Offshore Wind Farm (MOWL) to supply, install, support, and maintain Moray West's communications system.

MORE INFO ferncom.com

Shoreline Wind names Tuohy as new COO

Shoreline Wind, the wind energy leader in design simulation, construction and O&M solutions, recently announced it has appointed David Tuohy as chief operating officer.

This latest move strengthens the company's leadership team, bringing into the fold an experienced executive with a proven international track record in scaling energy software platforms.

The move also capitalizes on what the company sees as positive policy developments in key markets regarding wind energy, including the U.S. In January, the U.S. Department of the Interior announced it will reform its regulations for the development of wind-energy facilities on the country's outer continental shelf, in order to meet key climate goals.

With 30 years of relevant interna-

tional experience, Tuohy has spent the last 15 years leading private equity backed climate technology companies, both at C-level and in board roles. He has worked with technologies from solar PV and power electronics for grid integration of wind power to SaaS solutions for energy efficiency and demand response management.

He is also a non-executive director of publicly listed Climate Transition Capital. Tuohy has an engineering background and studied at University College Dublin, INSEAD, and the UCLA Anderson School of Management.

"Shoreline makes a real contribution to carbon reduction goals by enabling faster and cheaper deployment of wind energy at a global scale," Tuohy said. "With its market-leading SaaS offering,

Shoreline is well on its way to become the industry standard for project design, construction, and O&M for wind energy. This company can make a real difference. I am really excited to be part of the team."

Since 2014, Shoreline has been developing and deploying cutting edge SaaS solutions that deliver the essential, data-driven insights wind-farm developers, operators, OEMs, contractors, and consultants need to make wind energy more cost-efficient throughout the entire wind farm lifecycle.

Last year Shoreline secured additional funding from U.S.-based Ecosystem Integrity Fund (EIF) and Nordic investor Ferd Capital. Existing investor Blue Bear Capital also participated in the round.

The funds are being used to drive Shoreline's growth in the U.S. and APAC, and to expand the company's feature set for lifecycle asset optimization. Since closing the investment, Shoreline has increased staffing twofold with hires in Norway, Denmark, Germany, Sweden, and most recently in the Netherlands.

"Right now, Shoreline is perfectly positioned to realize exponential growth in lockstep with the growing global demand for wind energy," said Ole-Erik Vestøl Endrerud, CEO and founder of Shoreline. "We have proven to our customers that our patented technology can drive down construction and O&M costs. The next phase is all about scaling the business and execution capabilities."

Ambitious wind-energy installation and energy production goals are being announced globally with planned installations in APAC and the U.S. leading the trend.

Wind-farm developers and operators are increasingly reliant on smart simulation solutions to virtually plan and optimize construction and operation, and subsequently deploy and manage the assets using digital solutions. This is key to maximize return on investment in what is an increasingly cost-competitive market.

Shoreline provides solutions to major global players such as Siemens Gamesa, Ørsted, Equinor, Ocean Winds, and Vattenfall, with more local players also adopting Shoreline's solutions. Whether acting global or local, Shoreline is committed to ensuring its platform and people deliver what these customers need to achieve their goals.

"David has worked for multiple clean energy tech scale-ups and he is really passionate about the energy transition," said Geoff Eisenberg, partner at EIF. "There are not many people around who have worked for big energy companies and a leading energy SaaS unicorn. The investors are thrilled to have him join the leadership team to help Shoreline realize its full growth potential."

Shoreline provides enterprise solutions for the wind industry using intelligent data integration and simulation software to optimize and execute wind-farm construction, asset management, and business cases, and their solutions are deployed globally with the world's largest energy companies, OEMs and service companies.

Shoreline Wind's solutions are cloud-based, distributed on Software as a Service terms and available to customers on subscription basis, along with an appropriate training and support package.

MORE INFO shoreline.no