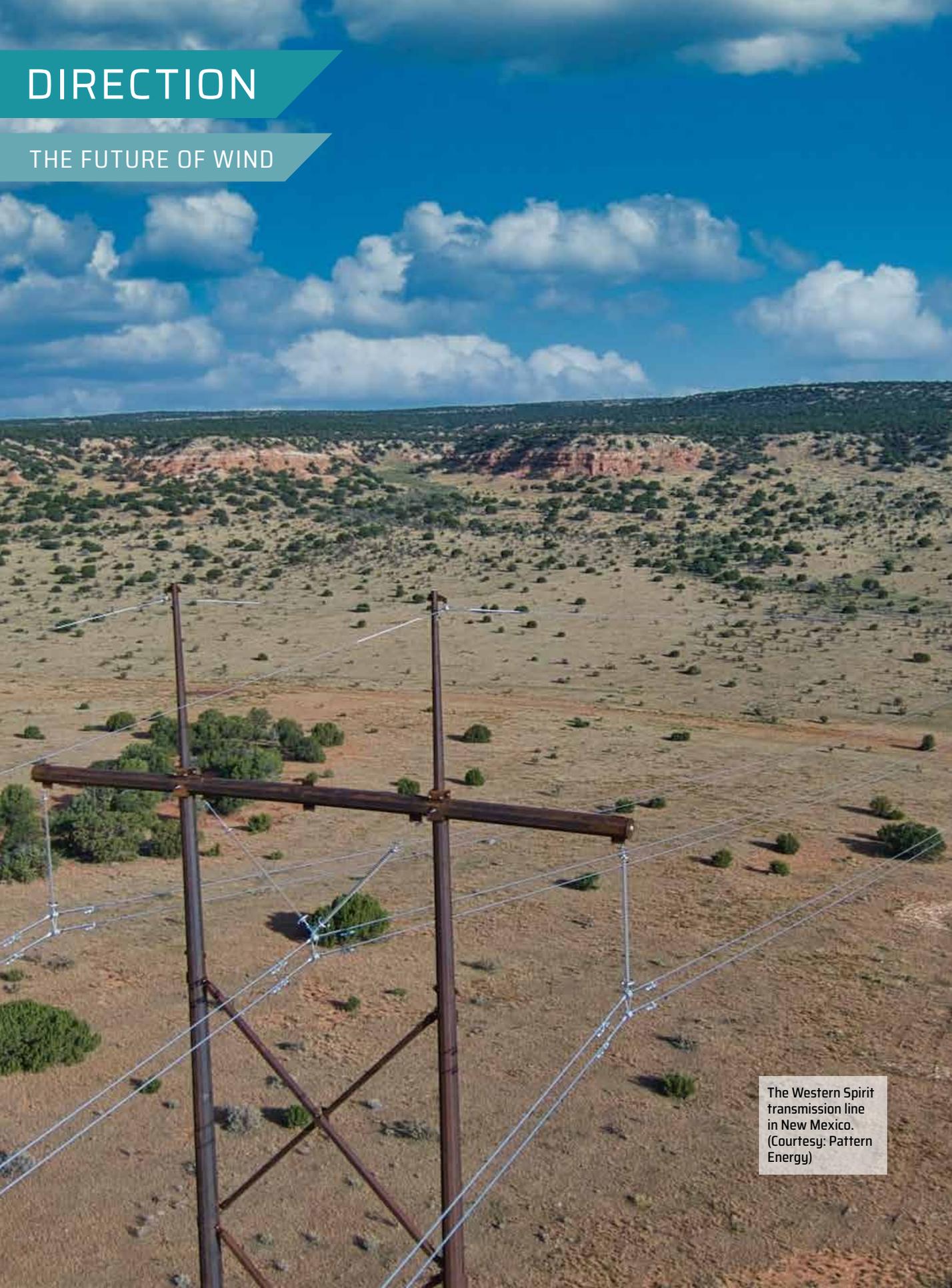


DIRECTION

THE FUTURE OF WIND



The Western Spirit
transmission line
in New Mexico.
(Courtesy: Pattern
Energy)

Western Spirit transmission line fully operational, will collect 800 MW of wind

Pattern Energy Group and the New Mexico Renewable Energy Transmission Authority (RETA) recently announced that the Western Spirit transmission line is energized and fully operational.

The 155-mile, 345 kV transmission line will collect up to 800 MW of wind power from central New Mexico and connect it to the electric grid managed by Public Service Company of New Mexico. After commissioning is completed, PNM will acquire and operate the transmission line.

“This is a big day for New Mexico as we open access to new sources of clean and affordable energy to consumers across the state and region,” said Mike Garland, Pattern Energy CEO. “Wind power has already begun flowing on the line and later this month we will complete our Western Spirit Wind projects — the largest single-phase renewable energy buildout in U.S. history — utilizing this new line and other infrastructure to bring on a full 1,050 MW of clean renewable power. Thanks to New Mexico’s mighty winds — some of the strongest wind resources in the entire country — these nearly \$2 billion projects created thousands of jobs, generated economic activity in rural areas, and will now generate pollution-free clean power for thousands of homes. We are proud to have designed this project with input and support from the local communities, environmental organizations, and state government, making this a successful collaborative investment in New Mexico infrastructure.”

“This is the largest transmission upgrade to the PNM system since the 1980s and is increasing grid reliability by harnessing New Mexico’s natural resources,” said Robert E. Busch, RETA chairman. “Today marks a critical milestone to achieve the State of New Mexico’s vision of zero carbon emissions by 2045. After a decade of hard work RETA is accomplishing what it was tasked to do. The completion of

the Western Spirit transmission line and wind farms will be a major leap for New Mexico toward a clean energy future.”

The Western Spirit Transmission line is enabling the construction of Pattern Energy’s Western Spirit Wind power projects, which are scheduled for completion at the end of December 2021. Totalling more than 1,050 MW, the Western Spirit Wind projects represent the largest single-phase renewable power build out in U.S. history. The four wind projects that comprise Western Spirit Wind are located in Guadalupe, Lincoln, and Torrance counties in central New Mexico.

Adding more renewable energy to the grid reduces the need to burn coal and natural gas. In addition to reducing emissions, the Western Spirit Transmission line will reduce water withdrawal from lakes and rivers by 850 million gallons per year, water that would otherwise be needed for cooling thermal power plants.

Pattern Energy has more than 4,500 MW of New Mexico wind in operation or development, representing more than \$9.5 billion of planned investments.

MORE INFO patternenergynewmexico.com

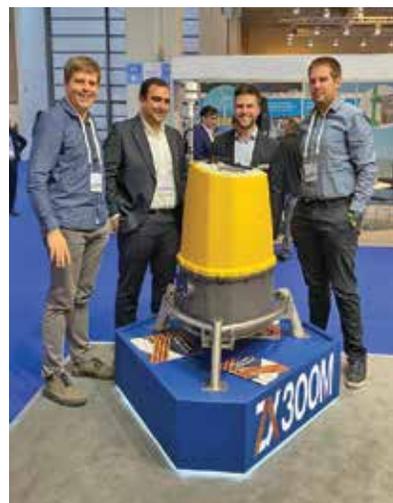
Oil, gas platform owner contracts for Lidars in Adriatic

A confidential owner of oil and gas platforms in the North Adriatic Concession area has contracted renewable energy consultancy Megajoule to install multiple wind Lidars as part of the company’s low carbon development strategy.

ZX Lidar’s Lidar ZX 300M, the offshore industry standard, will be deployed to begin taking measurements up to 300 meters from their installed position on the gas platforms to sup-

port the assessment of potential wind energy in the area.

“For decades we installed tall met masts at sea — it was the way offshore wind resource assessment was done. Today’s modern approach is with Lidar, specifically ZX 300M, which, in a relatively short period of time, has probably already gathered more offshore wind data than ever previously existed from masts. It is the new standard for offshore wind resource assessment and Megajoule are proud to sign contracts with our confidential client, and with ZX Lidars to unlock the future of offshore wind in the Adriatic,” a Megajoule spokesperson said.



Megajoule and ZX Lidars sign Lidar contract for Adriatic at WindEurope Electric City 2021. (Courtesy: ZX Lidars)

ZX 300M has been responsible for more than 95 percent of offshore wind measurements from floating platforms and the use of the technology has attracted more than £150 billion in clean-energy investment in the last five years. It is expected that Megajoule’s deployment of these Lidars shall also be used to finance future offshore wind farm development in the Adriatic.

ZX Lidars provides wind Lidar products, ZX 300, ZX 300M, and ZX



The 71-meter blade on the SG 4.X platform integrates aerodynamics and noise reduction features (Courtesy: Siemens Gamesa)

TM for wind energy and meteorological applications. These Lidars deliver wind measurements in both onshore and offshore applications at measurement heights and ranges across the full swept area of the blades of modern wind turbines. ZX Lidars has achieved world firsts with customers, including upwind measurements from a turbine nacelle, turbine wake studies, offshore deployments of both fixed and floating wind Lidar, an industry-accepted validation process, re-financing and re-powering of a wind farm, successful demonstration of measurement accuracy in a wind tunnel, and total wind-project financing from a Lidar without need for a met mast.

MORE INFO www.zxlidars.com

Siemens Gamesa, RES expand Canada partnership

Siemens Gamesa Renewable Energy signed its first project with Renewable Energy Systems in Canada to supply wind turbines for RES' 100-MW Hilda wind-power project in Alberta.

Siemens will supply 20 SG 5.0-145 turbines, which will provide power for about 50,000 homes.

The project ramps up the company's partnership with RES in North America, while helping Alberta, as well as Canada, reach its 30 percent goal of renewable energy generation by 2030. "In partnership with RES and through the Hilda wind-power project,

we are two global corporations truly working to generate positive impact within our local communities, and this project is proof of that," said Shannon Sturgil, CEO, Onshore North America, Siemens Gamesa Renewable Energy. "RES continues to be a key partner in providing clean-energy solutions, as well as a strong global citizen in the communities we serve, and we are proud to expand our partnership with them into Canada."

The 71-meter blade on the SG 4.X platform integrates aerodynamics and noise reduction features — including Siemens Gamesa DinoTails® Next Generation technology.

This reduction in noise will improve the performance at the Hilda wind power project while remaining within mandated noise emission levels. Siemens Gamesa has orders for more than 1.2 GW of power in western Canada with the SG 4.X platform for installation through 2023.

With wind-turbine installations of almost 3,000 MW installed across Canada from Alberta to Quebec and with signed contracts that will increase to more than 4,000 MW by the end of 2023, Siemens Gamesa Renewable Energy is a market leader by cumulative installed capacity.

MORE INFO www.siemensgamesa.com

Oceanbird wind propulsion venture accelerates to market

Alfa Laval and Wallenius have finalized a 50/50 joint venture to accelerate Oceanbird wind-power solutions from a concept to commercial reality.

The system for wind propulsion, conceived by Wallenius, uses wing sails that have more in common with modern planes than traditional sailing ships.

The technology can reduce emissions by 90 percent on the largest ocean-going vessels.

"COP26 put the need for accessible technology in the spotlight," said Niclas Dahl, Oceanbird's managing



Oceanbird will take wind power solutions from a cutting-edge marine concept to commercial reality. (Courtesy: Oceanbird)

director. “Decarbonizing shipping is imperative, and wind is a free source

of power with a substantial role to play, and minimum need of infrastructure.”

The Oceanbird team was among winners of the Wind Propulsion Innovation Awards in 2021. Oceanbird carried the Wind Propulsion Products Award category in open voting with 40,000 participants.

“We’re proud of the recognition from our marine industry colleagues, which confirms that Oceanbird is on the right path,” Dahl said. “As the enthusiasm for wind-power grows, we’re moving rapidly to build on what we’ve achieved.

Our next wing sail prototype is on the horizon, and we’re on target to have a transatlantic carrier fully propelled by Oceanbird technology in 2025.”

Dahl said that the time for wind-energy development is now.

“Wind is an opportunity we must seize now. There’s simply no time to waste in phasing out fossil fuels,” he said. ✈

MORE INFO www.theoceanbird.com




ANCHOR BOLT PROTECTION

**DENSO
COLORTAPE™**



Primer Integrated
Petrolatum Tapes

**EASY TO
APPLY BY HAND**



Easily Conforms to
All Shapes and Sizes

Denso ColorTape provides anchor bolt protection with one easy step. The petrolatum tape has over a 92 year history of providing corrosion protection in severe environments. It will provide the protection that anchor bolts need to keep the wind turbines operating.

Since 1883
138
Years Service to Industry

www.densona.com
Call: 281-821-3355
E-mail: info@densona.com