

DIRECTION

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New partnering arrangement enhances WSP's offshore wind capabilities

WSP USA has entered into a partnership with Wood Thilsted, a specialist structural and geotechnical engineering consultancy, to provide detailed design services for offshore wind foundations in the U.S. market.

WSP provides technical and consulting services to support developers in planning, implementing, and operating offshore wind systems. The firm's expertise includes geotechnical, civil, and structural engineering; renewable generation, transmission, and distribution system design; wind resource assessment; and equipment and process quality assurance.

WSP's extensive knowledge of the U.S. regulatory and management environment, combined with Wood Thilsted's extensive experience in the design of offshore wind foundations, provides clients with a unique service offering.

Since its founding in 2015, Wood Thilsted has served clients on more than 30 projects worldwide. While most of these projects are in support of foundation design for offshore wind-farm developments, the firm has also worked on onshore infrastructure and building projects.

"The combination of Wood Thilsted's expertise in wind-turbine monopile design and WSP's multidisciplinary skills and global resources provides an exceptional level of technical and consulting support to the offshore wind industry," said Matthew Palmer, vice president and manager of offshore wind services at WSP USA.

"Improved design of offshore wind foundations has contributed significantly to reducing the overall cost of energy for offshore wind in Eu-



WSP provides technical and consulting services to support developers in planning, implementing, and operating offshore wind systems. (Courtesy: WSP USA)

rope," said Wood Thilsted partner Alastair Muir Wood. "Our firm has been working on feasibility-level design for U.S. projects for more than 18 months, and this new partnership with WSP provides an opportunity

to apply that experience at a detailed design level." ↵

Source: WSP USA

For more information, go to www.wsp.com

Floating offshore wind farm planned for California coast

The Redwood Coast Energy Authority has selected a consortium of companies comprised of Principle Power Inc., EDPR Offshore North America LLC, Aker Solutions Inc., H. T. Harvey & Associates, and Herrera Environmental Consultants Inc. to enter into a public-private partnership to pursue the development of an offshore wind-energy project off the Northern California coast.

The consortium was one of the six respondents to the Request for Qualifications (RFQ) issued by the RCEA February 1.

“We have been very impressed and humbled by the respondents and the quality of the responses we received for this RFQ,” said Matthew Marshall, executive director of the RCEA. “Large development companies and energy players based in Europe and the U.S. responded to the RFQ, which helps confirm the attractiveness of Humboldt County as the potential starting point for an entire new industry.”

The consortium is excited with the opportunity presented by RCEA and pleased to bring proven technology, development expertise, and financial capabilities to the partnership, which will work toward a flagship project for the floating offshore wind industry in California and the U.S. in general.

“We believe this project can represent a game changer for the industry in the U.S.,” said Joao Metelo, Principle Power’s president and CEO. “The establishment of a public-private partnership with a community-based energy provider like RCEA represents a unique opportunity to develop a project with strong foundations from the get-go, and to build a comprehensive launching pad for a successful industry in the West Coast.”

“This project is strategic in the long-run and attractive to us due to its potential to spur large market development in California,” said João Manso Neto, EDP Renewables CEO. “EDP Renewables is confident in the viability of the offshore wind market and looks forward to continuing development on this project with the ultimate goal of further increasing our operational presence in the United States.”

“We are excited to be part of this first commercial scale project for floating offshore wind in the United States,” said Jonah Margulis, vice president and U.S. country manager at Aker Solutions. “Combining our capabilities with Principle Power’s technology can help mature the local supply chain, potentially generating industry growth in Humboldt County and the state of California.”

wind-energy industry on the West Coast of the U.S. The wind resource off the Humboldt County coast is the best with average wind speeds of more than 10 meters per second, inducing expected high capacity performance from wind farms.

The proposed project is a 100- to 150-MW floating offshore wind farm planned more than 20 miles off the coast of Eureka. The project will pave the way for offshore wind energy off the West Coast and may be the first project to unlock the extraordinary value of offshore wind energy for California.

The selected consortium features significant offshore wind lease application and permitting experience, a mature, cost-competitive and suitable floating wind technology for Humboldt County’s unique geography (Principle Power Inc’s WindFloat technology), and a highly-capable team with the needed capacity to develop, finance, operate and build a supply chain to support this and future projects. RCEA and the selected consortium will be negotiating and finalizing a partnership agreement in the coming weeks, working toward the goal of submitting a lease application later this spring.

LED BY THE LOCAL COMMUNITY

Humboldt County is marked by a strong ecosystem of local energy, environmental, and economic professionals who played a crucial role in the 15-member RFQ review committee along with local officials and public agencies. Input and guidance from local stakeholders will be critically important to the project and the overall development of the industry in California. With RCEA leading, the project partners will continue proactive community and stakeholder outreach to understand and address all the facets of developing a project of this kind to minimize any potential impacts and maximize local community benefits.

The project is expected to drive investment in local infrastructure at the Port of Humboldt Bay and other nearby onshore facilities. A strong collaboration with local stakeholders to identify and address needed infrastructure improvements will be led by the project partners. The upcoming offshore wind industry will also require skilled labor and create local jobs and workforce training, thus advantageously positioning Humboldt County as a leading hub for future offshore wind development throughout the West Coast. ↘

QUICKLY ESTABLISHING AN OFFSHORE WIND

Humboldt County has natural enabling advantages that make it a prospective stepping stone for the offshore

For more information, go to www.edpr.com

Source: EDP Renewables

New York set to become leading hub for offshore wind

After years of false starts and delays, U.S. offshore wind is finally gaining momentum, fueled by innovation in turbine technologies, greater economies of scale, and increased political support — at least at the state level. New York, in particular, is ideally placed to benefit and serve as an economic and financial hub for U.S. wind over the next decade.

This is according to the latest findings outlined by industry intelligence service A Word About Wind in its Finance Quarterly Q2 report. The report forms the latest analysis published exclusively for its rapidly expanding international membership of energy developers, financiers, and investors.

This financially focused, quarterly investor report series provides an exclusive insight into key M&A transactions, data on the most notable deals of the past three months, economic country forecasts, and unrivaled investment analysis, four times a year.

This edition focuses on the U.S. wind market, and that of New York in particular, and reveals that 2.4 GW of wind PPAs were agreed in the first quarter of 2018 — making it the busiest quarter for PPAs in the U.S. since 2013.

While the Trump administration and its tax reforms have given rise to considerable uncertainty, for instance, this has been more than compensated for by the initiatives of state governments in New York, New Jersey, and Massachusetts, among others.

However, market challenges such as the Jones Act, which requires that goods shipped between U.S. ports be carried on ships that are U.S.-built, U.S.-flagged, and U.S.-crewed, have the potential to disrupt the pace of growth. In addition, the proposed 25 percent tariff on steel — the major



New York is well placed to attract investors' interest and capital and position itself as a regional leader in offshore wind. (Courtesy: Pixabay)

raw material in wind turbines — could well result in increased turbine prices.

Nevertheless, the outlook for U.S. offshore wind remains positive. As one of the world's largest financial centers, New York is well placed to attract investors' interest and capital and position itself as a regional leader in offshore wind. And it has already set itself the ambitious target of generating 50 percent of its electricity from renewable sources and having a total offshore capacity of up to 2.4 GW by 2030.

Significantly, the New York State Energy Research & Development Authority is aiming to encourage investors to back offshore wind projects that cost more upfront than other clean energy schemes. It formed the New York Green Bank in 2014, which is interviewed in this report, to fund renewables projects in the state, and the bank is now capitalized with \$1 billion, of which it has invested \$457.5 million to date.

While wind has so far been a minority interest, as more and larger projects are mooted, the bank has

the potential to play a key role in future commercialization of the U.S. offshore wind sector.

“For years the U.S. offshore wind industry lay dormant, but it is now beginning to wake up and stands to benefit from greater cost efficiencies and technological advances,” said Richard Heap, editor, A Word About Wind. “But it's also becoming increasingly clear that strong political buy-in at the state level will have a make or break effect on overcoming potential regulatory and economic stumbling blocks. New York in particular has pushed itself to the fore in terms of its commitment to creating a profitable environment for U.S. offshore wind, and this will be crucial to the success of the wider industry.”

“U.S. offshore wind currently has much to shout about, and competition between the states is driving the growth of the sector and its supply chain,” said Adam Barber, managing director of The Tamarindo Group, of which A Word About Wind forms a key part. “New York is in a strong position to capitalize on its status as

a global financial center and continue attracting greater investment in offshore wind, but can expect to be pushed hard in its bid to become the leading hub for wind by New Jersey and Massachusetts.” ↴

Source: *A Word About Wind*

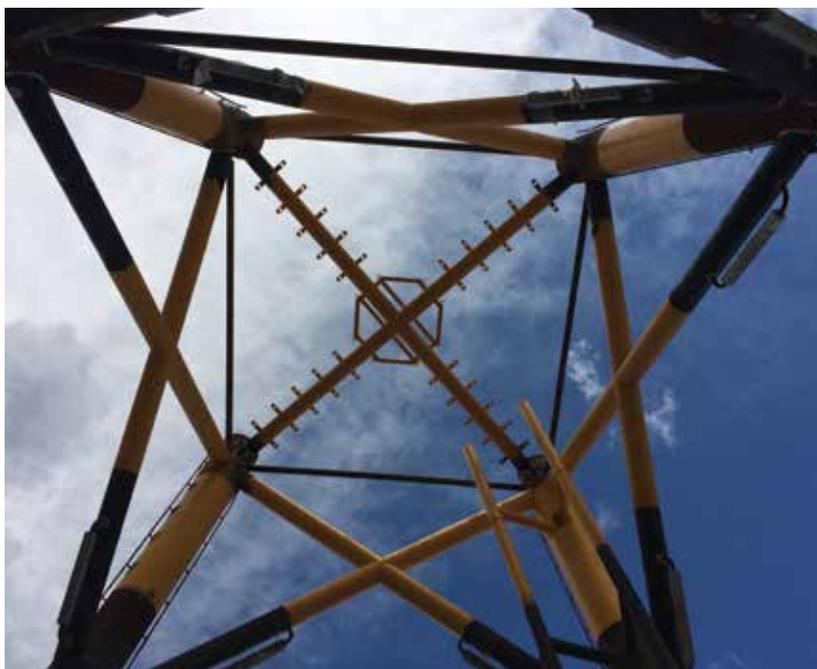
For further information, go to: www.awordaboutwind.com

U.S. Department of the Interior charts big future for offshore wind

U.S. offshore wind development received a major boost from the Trump administration. The U.S. Department of the Interior’s Bureau of Ocean Energy Management (BOEM) recently announced the sale of two new offshore wind lease areas off Massachusetts, a call for input on additional proposed lease areas in the New York Bight, and a high-level assessment of all Atlantic Coast waters for potential future offshore wind lease locations.

“Secretary Zinke’s leadership is transforming the enormous potential for offshore wind into a concrete pillar of American energy dominance,” said Tom Kiernan, CEO of the American Wind Energy Association (AWEA). “Expanding the market for offshore wind is good news for American workers and the coastal communities needed to manufacture, deploy, and operate these projects. Working closely with the states, this administration can lead the U.S. to become a world leader for offshore wind as it is for other sources of energy.”

Because most offshore wind development will happen in federal waters, BOEM’s process to assess, identify, and auction lease areas to offshore energy developers is essential to unlock U.S. offshore wind’s technical potential, which is estimated to be nearly double current U.S. electricity use. BOEM has previously awarded 13 commercial wind-energy leases off the Atlantic coast and this announcement puts two more areas up for sale off the coast of Massachusetts. BOEM’s call for input in New York and the high-level assess-



Gulf Island Fabricators constructed offshore wind turbine jackets for Deepwater Wind’s Block Island Wind Project off Rhode Island. (Courtesy: BOEM/Sid Falk)

ment of the Atlantic Coast has the potential to open even more lease areas to offshore wind.

BOEM’s announcements add to the market optimism for U.S. offshore wind development. Major offshore infrastructure developers have placed aggressive bids to develop existing wind lease areas, and America’s first offshore wind farm came online in late 2016. States such as Maryland, Massachusetts, New Jersey, and New York are advancing ambitious policies that will help the offshore wind industry achieve scale and build out a domestic manufacturing supply chain.

A recent study coauthored by New York, Massachusetts, Rhode Island, and the Clean Energy States Alli-

ance, found that 8 GW of offshore wind from Maryland to Maine will create almost 40,000 full-time U.S. jobs by 2028; 86 GW by 2050 would support 160,000 jobs. Another study by the Workforce Development Institute found that 74 different occupations, including electricians, ironworkers, and welders, are needed during the various stages of planning, development, and operations of offshore wind farms. The land-based wind industry supports more than 100,000 U.S. workers today, demonstrating growth at this scale is achievable. ↴

Source: AWEA

For more information, go to www.awea.org