

DIRECTION

THE FUTURE OF WIND



Floating wind technology will be vital for the U.S. to meeting renewable energy goals, said NOAA president Erik Milito. (Courtesy: Ocean Winds)

NOIA president praises Golden State Wind lease off California coast

National Ocean Industries Association President Erik Milito praised the wind lease sale off the coast of California to the offshore wind venture Golden State Wind.

“The California lease sale gives the U.S. a chance to lead the emerging floating wind sector. Floating wind technology in its early stages but it is an advanced technology that will lead to strong growth in the deployment of offshore wind,” Milito said. “The timely scaling and deployment of floating wind technology will be vital in meeting U.S. and global renewable energy goals. The U.S. stands well-positioned to develop our deepwater wind resources and become a global hub of floating wind innovation. Offshore wind is a national endeavor with substantial benefits to our energy, jobs, and investment outlook.”

“We are only at step one of U.S. floating wind leadership,” he said. “The success of American offshore wind depends on further collaboration among stakeholders. Specifically, continued engagement between BOEM, NOAA, the military, and other oceanic users will help ensure that sufficient flexibility is provided, investment is promoted, and project impediments are avoided.”

MORE INFO www.noia.org

Texas leads U.S. in PTC revenue with more than \$12B

The latest analysis from IntelStor indicates that since the PTC program was instituted, wind-energy asset owners in the U.S. have generated more than \$47.5 billion in revenue from the PTC alone.

Texas has generated more than \$12 billion in PTC revenue by itself. Oklahoma generates \$58,125 worth of PTC revenue per MW per year, with Kansas



EDF North America's fleet of Vestas turbines is the most productive at generating PTC revenue with \$65,664 per MW per year. (Courtesy: EDF Renewables)

second at \$57,893 per MW per year and Nebraska third with \$57,266 per MW per year.

The Production Tax Credit (PTC) in the U.S. has been a powerful tool for asset owners to ensure the favorable financial health of their projects. More than 75 percent of the 138 GW of operational capacity in the United States has taken advantage of the PTC. Historically, it has provided between a \$10 to \$26 per MW/hr incentive on top of the power purchase contract price or merchant market rate.

NextEra Energy Resources has been the largest beneficiary of PTC revenue based on net production data through December 2021, but this perspective is skewed given the size of the fleet in the U.S. The normalized PTC revenue per installed MW per year indicates that many of the top asset owners in the U.S. are hovering around the capacity weighted market average of \$47,416.

IntelStor also benchmarked the capital efficiency of an asset owner's project CapEx expenditure relative to the amount of PTC revenue they earn. Some asset owners are only able to recoup single digit to low double-digit returns, but some savvy asset owners

have managed to see a return on their project CapEx of upwards of 40 to 50 percent just through PTC revenue alone. While this is project-site dependent, it underscores why site selection, the right equipment supply, and a proactive maintenance approach can have a profound influence on financial outcomes.

Out of the top 10 wind-energy asset owners in the U.S., EDF North America's fleet of Vestas turbines is the most productive at generating PTC revenue with \$65,664 per MW per year. Next on the list is Berkshire Hathaway Energy's Siemens Gamesa fleet at \$61,100 per MW per year and EDP Renewables' fleet of Siemens Gamesa turbines at \$54,427 per MW per year.

MORE INFO www.intelstor.com

Pattern Energy names Armistead as new CEO

Pattern Energy has named Hunter Armistead as its new CEO.

Armistead, Pattern Energy's current chief development officer, succeeded Michael Garland in the role.

Garland retired after his successful tenure as CEO of Pattern and its predecessors since 2009.

“This is an extraordinary time for the renewable energy sector and the entire Pattern team is exceptionally well positioned to deliver on the opportunities ahead,” Garland said. “Given his long history as a leader of this company, the strength of his commercial instincts, and his passion for Pattern’s vision, I believe Hunter is uniquely capable of leading this company in a way that provides consistency, continuity and leadership across the business both internally and externally.”



Hunter Armistead is Pattern Energy’s new CEO. (Courtesy: Pattern Energy)

“It has been a tremendous journey since we founded Pattern in 2009, and it is my honor and privilege to take on the CEO role,” Armistead said. “Pattern began with a modest pipeline, a few dedicated professionals, and a vision to accelerate the world’s energy transition. To see Pattern and our industry evolve into what we have become has been a beautiful ride and is one that has only just begun. I am 100 percent committed to driving the next chapter in our growth in a manner that is consistent with our mission, our culture and our values.”

“I have seen first-hand Mike Garland’s exceptional leadership of the company since 2009,” said Lord John Browne, chairman of the board. “During his long service, he has led Pattern through many successful phases of development. We are most grateful for all he has done. We conducted a thorough search for his successor and concluded that Hunter Armistead was the ideal candidate. He cares deeply for the company’s culture and people and brings great experience and understanding of the company’s business to the role.”

MORE INFO www.patternenergy.com



The lease area is in the Morro Bay area off the central coast of California. (Courtesy: Ocean Winds)

Golden State Wind gets California coast area lease

Ocean Winds and Canada Pension Plan Investment Board recently announced their offshore wind joint venture Golden State Wind has been awarded an 80,418-acre lease area by the U.S. Bureau of Ocean Energy Management (BOEM) in the Morro Bay area off the central coast of California.

The lease area is one of five sites off the coast of California that was the subject of an auction held by BOEM. This auction is notable as it is the first floating offshore wind lease sale in the country, and the first offshore wind lease sale of any kind on the West Coast.

Ocean Winds has more than 10 years of experience in floating offshore wind. Ocean Winds has a substantial portfolio of floating projects in Europe and South Korea.

Golden State Wind’s winning bid for the lease area OCS-P 0564 was \$150.3 million, with OW and CPP Investments each maintaining a 50 percent investment in the project. When fully built and operational, the lease area could accommodate about 2 GW of offshore wind energy, generating enough energy to power the equivalent of 900,000 homes.

This will bring the U.S. and California closer to meeting their clean-energy goals of 15 GW of floating offshore wind generation by 2035 in the U.S. and 5 GW by 2030 in California, build-

ing a new domestic industry, creating jobs for Californians, and boosting the local economy.

As part of Golden State Wind’s bid, OW and CPP Investments commit to investing \$30 million in workforce development and supply chain initiatives and to work closely with key local stakeholders to maximize the benefits to California.

“OW is a pioneer of floating offshore wind technology—with nearly 3.7 GW of floating wind projects in development or operations in Portugal, France, South Korea, and the U.K.—and we are ready to bring our expertise to the U.S. as well,” said Michael Brown, Ocean Winds North America CEO. “OW currently has about 4 GW of projects already under active development in the Northeastern U.S., and this is the perfect opportunity to further expand our portfolio and contribute to the federal government’s ambitious floating offshore wind targets.”

“We are proud that our partnership with Ocean Winds has earned this opportunity to help accelerate the transition to lower-carbon sources of energy for Californians and, more broadly, to serve as an example for other jurisdictions,” said Bruce Hogg, CPP Investments managing director. “This investment aligns well with our efforts to reduce carbon emissions across our portfolio while continuing to deliver strong, long-term risk-adjusted returns for the Fund’s contributors and beneficiaries.”

MORE INFO www.oceanwinds.com/north-america