

# DIRECTION

THE FUTURE OF WIND

Clearway Energy signs 25-year deal with Puget Sound Energy. (Courtesy: Clearway Energy)

# Clearway Energy Group to deliver wind energy to Puget Sound Energy

Clearway Energy Group recently announced it signed a 25-year power purchase agreement with Puget Sound Energy for the Haymaker wind farm, a 315-MW facility under development in Wheatland and Meagher counties in Montana.

Once operational, Haymaker will generate enough electricity to power about 116,000 homes each year.

“We are proud to partner with Puget Sound Energy in delivering low-cost clean energy to their customers and supporting their ambitious renewable energy goals,” said Valerie Wooley, senior vice president of origination at Clearway.

“Reinforced by the Inflation Reduction Act, Haymaker represents a major investment in central Montana’s economy, and we’re eager to work with the community through development, construction and our long-term stewardship of the project.”

“This agreement with Clearway helps us meet some of the most ambitious laws in the nation while delivering on our customers’ expectations for energy that is clean as well as safe, reliable, and affordable,” said Ron Roberts, PSE’s senior vice president of Energy Resources.

“We are proud to be a partner in developing Montana’s wind resources, and this is yet another milestone in our continued investment in the state’s energy economy.”

Haymaker is expected to provide millions in landowner payments and more than \$100 million in property tax revenue over the life of the project.

Hundreds of well-paying union labor jobs will be created during construction, and a permanent local workforce will operate and maintain the site.

Construction of the Haymaker Wind is scheduled to begin in 2026, with commercial operations expected by 2028.

**MORE INFO** [clearwayenergygroup.com](http://clearwayenergygroup.com)



Oceanic Wind CEO Liz Burdock is Massachusetts Maritime Academy’s Person of the Year. (Courtesy: Oceanic Network)

## Maritime academy honors Oceanic founder Liz Burdock

Massachusetts Maritime Academy, a public university with undergraduate degree programs focusing on science, engineering, technology, math, and business that blend academics and experiential learning, will honor Liz Burdock, founder and CEO of Oceanic Network, as Person of the Year during an October 26 event on the academy’s campus. “I am honored to receive the 2024 Maritime Person of the Year Award,” Burdock said.

“I have dedicated my career to protecting the environment through the advancement of clean energy, and our maritime partners are already proving to be a key part of our nation’s clean-energy future. Every offshore wind project requires a host of specialized vessels and dozens of skilled technicians.

Each of these massive construction projects are bringing jobs, training, and investment to maritime companies and communities across the East and Gulf Coasts. Thank you to Massachusetts Maritime Academy for recognizing the importance of offshore wind energy and its contributions to the domestic maritime industry.”

Burdock co-founded the Baltimore-based Oceanic Network – an organization dedicated to growing the offshore wind and other ocean renewable industries and their supply chains – in 2013.

With a deep background in policy, she has led the Network, launching the International Partnering Forum, the largest offshore wind conference in the Americas; delivered critical offshore industry products and services, including Supply Chain Connect, the Offshore Wind Market dashboard, and Foundation 2 Blade training and remains a thought leader advancing the development of the U.S. offshore wind industry and domestic supply chain.

With extensive experience in running public/private partnerships, Burdock has focused her career on convening and coordinating diverse stakeholders, including businesses, academics, government agencies, policy makers, community leaders, workforce organizations, and strategic investors, to develop sound solutions that facilitate the implementation of clean energy in the U.S.

Burdock holds a degree in sociology from Frostburg State University and is a graduate of Leadership Maryland. She has been featured in energy-related publications including ReCharge, reNEWS, and RTO Insider, as well as the Baltimore Sun, Forbes, Reuters, and the Wall Street Journal.

The Emery Rice Medal has been awarded to a select group of maritime professionals. Past honorees of the Massachusetts Maritime Academy Person of the Year include admirals, captains, and CEOs.

“We are delighted to award the Emery Rice Medal to Liz Burdock, not only for her significant contributions to the maritime industry, but also for embodying the very principles we teach at the Academy – leadership, ethics, business sense, and respect for the ocean environment,” said Rear Admiral Francis X. McDonald, USMS, president





BOEM has announced that a lease for Oregon offshore energy development would have few impacts on people or the environment. (Courtesy: BOEM)

of the Massachusetts Maritime Academy. “We look forward to honoring her during our October 26 ceremony.”

The Academy has a tradition of honoring a civilian or military leader with a distinguished career of excellence, innovation, and service to the maritime industries and other related industries with the Emery Rice Medal, named for an 1897 Academy graduate and WWI hero. Capt. Rice was twice recognized by President Theodore Roosevelt for his maritime skill and bravery.

**MORE INFO** [www.oceanticwind.ca](http://www.oceanticwind.ca)

## BOEM releases impact review for Oregon coast

The Bureau of Ocean Energy Manage-

ment (BOEM) recently announced the availability of its final Environmental Assessment (EA) of the possible impacts from issuing leases for potential offshore wind-energy development off the Oregon coast, including site assessment and site characterization activities such as geophysical, geological, and archaeological surveys. The EA concluded that lease issuance would have no significant impacts to people or the environment.

“BOEM relies on the best available science and information for our decision-making regarding offshore-wind activities,” said BOEM Director Elizabeth Klein.

“Working with Tribes, government partners, ocean users, and the public, we gathered a wealth of data, diverse perspectives, and valuable insights that shaped our environmental anal-

ysis. We remain committed to continuing this close coordination to ensure potential offshore wind energy leasing and any future development in Oregon is done in a way that avoids, reduces, or mitigates potential impacts to ocean users and the marine environment.”

Since the start of the Biden-Harris administration, the Department of the Interior has approved the nation’s first nine commercial-scale offshore wind-energy projects.

BOEM has held four offshore wind lease auctions, including sales offshore New York, New Jersey, and the Carolinas; and the first sales offshore the Pacific and Gulf of Mexico coasts.

BOEM is exploring more offshore wind-energy development opportunities in the U.S., including in the Gulf of Maine and offshore the U.S. Terri-

tories. The Department also continues to take steps to evolve its approach to offshore wind to drive toward union-built projects and a domestic-based supply chain.

On April 30, the Department of the Interior announced a proposed offshore wind lease sale for two Wind Energy Areas in Oregon.

BOEM expects to hold an Oregon offshore wind-energy lease sale later this year. A final sale notice will be published at least 30 days prior to the sale, detailing the time and date of the lease sale and qualified participants.

Any leases that might be issued from the sale would not authorize the construction or operations of an offshore wind-energy facility. Rather, a lease provides the lessee with the right to submit a project plan for BOEM's review. For any future proposed offshore-wind projects, BOEM will develop an Environmental Impact Statement to analyze the specific impacts of those projects before deciding whether to approve the proposed construction and operations plan.

The EISs will be prepared in consultation with Tribes and appropriate government agencies, and informed by input from stakeholders, ocean users, and the public.

**MORE INFO** [www.boem.gov](http://www.boem.gov)

## Crowley accepts delivery of LNG bunker barge

Crowley recently accepted delivery of the LNG bunker barge Progress, the largest U.S. Jones Act-compliant vessel of its kind, after construction was completed at Fincantieri Bay Shipbuilding in Sturgeon Bay, Wisconsin.

The Progress will expand access to cleaner energy for ship operators at the Port of Savannah, Georgia. Shell NA LNG, LLC, signed a long-term agreement with Crowley to operate the barge, providing another fueling location to ships using liquefied natural gas. "The Progress LNG bunker barge

sets a new standard for quality and capability to serve the energy needs of the shipping industry," said James C. Fowler, senior vice president and general manager, Crowley Shipping. "LNG offers a safe and reliable solution for ocean carriers that advances the transition to lower emissions.

We congratulate the people whose dedication and hard work in designing and building this world-class vessel allowed us to reach this milestone for the U.S. industry and our customers."

Designed by Crowley's engineering services group, the 416-foot-long barge has a capacity of 12,000 cubic meters (3.17 million gallons) and features a transformative design, enabling supply of LNG to fuel ships.

Progress' technologies include capability developed by Shell and Crowley's engineering services group to deliver LNG to various types of LNG containment systems.

"Fincantieri Bay Shipbuilding continues to be an industry leader in

building LNG bunkering barges," said Jan Allman, vice president and general manager of Fincantieri Bay Shipbuilding.

"We take tremendous pride in seeing another FBS-built vessel leave Sturgeon Bay to its new operational home port. I am proud of the work of our entire Fincantieri Bay Shipbuilding team."

LNG is the lowest carbon fuel now available to shipping at scale, emitting up to 23 percent less greenhouse gas emissions (well-to-wake) compared to very/ultra-low sulfur fuel oil.

Crowley is a privately held, U.S.-owned-and-operated maritime, energy, and logistics solutions company serving commercial and government sectors with \$3.4 billion in annual revenues, more than 170 vessels mostly in the Jones Act fleet and about 7,000 employees around the world.

**MORE INFO** [www.crowley.com](http://www.crowley.com)

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The PREDICT 2.0 initiative involves deployment of various sensors that can be used to help identify the potential impacts of floating wind farms on marine ecosystems. (Courtesy: Ørsted)

## Salamander wind farm deploys environmental monitoring campaign

Salamander, a joint venture between Ørsted, Simply Blue Group and Subsea7, recently partnered with two Scottish universities to investigate any potential impact of floating wind farms on marine ecosystems.

The PREDICT 2.0 initiative involves deployment of various sensors that can be used to help identify the potential impacts of floating wind farms on marine ecosystems, including the drivers of variation in fish movement and availability as prey.

The innovation package has now been deployed on the Salamander floating wind site, as was committed

to during the project's Innovation and Targeted Oil & Gas (INTOG) bid. The sensors — which include a fluorometer and echosounder — are gathering data on fish presence and behavior as part of a research program led by the University of the Highlands and Islands' (UHI) Environmental Research Institute and the University of Aberdeen. When the program is complete, the equipment will be fully removed.

"This multi-year initiative aims to help us develop a deeper understanding of fish migration patterns and how these can be better monitored; the goal is to improve siting of offshore wind farms to minimize any impact on fish and their predators," said Tom Brown, Salamander's innovation manager. "We already know that the demand for offshore renewable infrastructure is increasing exponentially, and by en-

suring we can appropriately research new project locations, we can more sustainably build a path to a better energy future while protecting the environment."

"It's really good to see the Salamander project team deliver once again, on time, one of the key components that demonstrates Salamander's value to the commercialization of floating wind and for the Scottish supply chain," said Salamander Project Director Hugh Yendole.

"Marine sensing is vital to understand the environment around floating offshore wind farms," said Dr. Benjamin Williamson, associate professor of energy at UHI. "Robust information and evidence are needed to inform where offshore wind developments should be located to better protect marine ecosystems. This exciting research will help to understand the drivers of variation in fish movement and the potential for environmental interactions with offshore wind."

The 100-MW floating wind farm will be 35 kilometers off the coast of Peterhead, generating enough green energy to power 100,000 homes. In May, the project submitted its offshore consents application to the Scottish Government.

If consented, the project will provide key insights and opportunities for the Scottish supply chain for future larger-scale developments in Scottish waters and further afield, ahead of the larger-scale ScotWind build-out.

**MORE INFO** [www.salamanderfloatingwind.com](http://www.salamanderfloatingwind.com)

## Volue, Jua to harness the power of AI driven weather prediction

Volue, a leader in technologies and services that enable its customers to succeed in the energy transition, recently announced a partnership agreement with Jua that is set to revolutionize weather prediction for the renewable energy market.

The partnership will see both com-

panies work together to deliver new and innovative technological solutions for forecasting and market insights. As well as that, Volue will now use Jua's weather prediction for fundamental analysis of the energy markets, providing highly accurate production, demand, and price forecasts. Volue's customers can now also access Jua's weather forecast within the Volue Insight platform.

Jua provides technology-driven decision making and modeling. By leveraging proprietary, fundamentally new technology and tens of millions of primary data points, it operates the first artificial intelligence (AI) "Large Physics Model," capable of predicting weather with extremely high accuracy, precision, and speed.

Insight by Volue provides all participants in the energy markets with the necessary decision-making support they need in terms of fundamental and price forecasts.

Up until now, numerical weather prediction models have been the gold standard for the energy market. Jua's global foundational AI model learns and understands the underlying atmospheric physics. This allows Jua to predict the weather faster and with higher accuracy than established standards.

"The importance of understanding our global weather system has never been greater; now more than ever, we recognize that an increased number of participants in the renewable energy ecosystem depend heavily on forecasting, with good forecasting ensuring high stability of the grid, low imbalance costs, efficient power production, and increased trading profits," said Arnt Sollie, SVP, Insight by Volue. "By combining forces with Jua, we are set to create what will be world-leading weather predictions for the energy markets. By merging Volue's extensive knowledge and technology with Jua's highly accurate and precise weather information, we will deliver market insight that until now was thought of as impossible."

"Volue is one of the most trusted and most innovative companies in the energy technology space," said Andreas

Brenner, co-founder & CEO, Jua. "They are poised to greatly contribute toward accelerating the energy transition. We believe that our vision for the future and our understanding of quality are completely aligned. This partnership puts both companies on a trajectory to deliver more innovative products faster to a larger audience than they could alone. I am excited by this potential and look forward to doing our part in accelerating the energy transition."

**MORE INFO** [value.com](http://value.com)

## BOEM issues offshore wind research lease to Maine

The Bureau of Ocean Energy Management (BOEM) recently announced the execution of the nation's first floating offshore wind energy research lease. The lease area covers a little under 15,000 acres 28 nautical miles offshore Maine on the U.S. Outer Continental Shelf and could allow for the deployment of up to 12 floating offshore wind turbines capable of generating up to 144 MW of renewable energy.

The research array will allow the state, the fishing community, wildlife experts, the offshore wind industry, and others to conduct in-depth studies and thoroughly evaluate floating offshore wind as a renewable energy source in the region. Research conducted on the array will evaluate its compatibility with existing ocean uses and assess its potential effects on the environment, supply chains, and job creation.

"Floating wind opens up opportunities to produce renewable energy in deeper water farther offshore," said BOEM Director Elizabeth Klein. "Signing the Gulf of Maine research lease demonstrates the commitment by both BOEM and the state of Maine to promote a clean energy future for the nation. It is another example of a successful all-of-government effort to reach the administration's offshore wind-energy goals and to combat the impacts of climate change."

Information gathered from the research lease will inform responsible commercial floating offshore wind development in the future and allow BOEM and Maine to capitalize on innovative technology, while protecting local and national interests and industries.

"Clean energy from offshore wind offers an historic opportunity for Maine to create good-paying jobs, reduce our reliance on fossil fuels, and fight climate change by cutting greenhouse gas emissions," said Maine Gov. Janet Mills. "This lease between the state and BOEM to support the nation's first research array devoted to floating offshore wind technology is the result of extensive engagement with stakeholders and communities across our state to establish Maine as a leader in responsible offshore wind, in balance with our state's marine economy and environment."

Since the start of the Biden-Harris administration, the Department of the Interior has approved the nation's first nine commercial scale offshore wind projects with a combined capacity of more than 13 GW of clean energy — enough to power nearly 5 million homes.

In that time, the Department has held five offshore wind lease auctions — including a record-breaking sale offshore New York and the first-ever sales offshore the Pacific Coast and in the Gulf of Mexico. The Department also recently announced a schedule to hold up to 12 additional lease sales through 2028. On August 14, BOEM held an offshore wind-energy lease sale for two areas on the OCS off the Central Atlantic.

Construction activity on the research array is not likely to occur for several years. The lessee is first required to submit a Research Activities Plan to BOEM, which will undergo environmental analysis under the National Environmental Policy Act. Additional details on the timing of construction will become clearer as the permitting process progresses. ✈

**MORE INFO** [www.boem.gov](http://www.boem.gov)