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After Headwinds, 2024 May See Offshore Wind Momentum

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Washington, D.C., Partner **Emily Huggins Jones** and Chair of Locke Lord's Renewable Energy Section and Houston Environmental Partner **Ben Cowan** co-authored an article featured as an "Expert Analysis" in *Law360*. The authors discuss the challenges and successes that defined offshore wind in 2023 and examine the expected momentum in 2024.

"Enthusiasm in the industry was at an all-time high but dropped precipitously in 2023 as a series of headwinds and rip currents combined to create rough seas for the fledgling industry," Huggins Jones and Cowan wrote. "Inflation, skyrocketing raw material costs, supply chain immaturity, vessel shortages and conflicting state and federal policies created a perfect storm."

Huggins Jones and Cowan added that while 2023 was a tumultuous year for offshore wind in the United States, there remains tremendous opportunity in the industry. "[W]ith improving economics, more flexible procurement procedures, continued federal support and increasing legislative support, the U.S. offshore market appears to have weathered the worst of the storm and is poised for growth in the coming year," the authors wrote.

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After Headwinds, 2024 May See Offshore Wind Momentum

By Emily Huggins Jones and Ben Cowan

2023 was supposed to be the year of offshore wind in the U.S. The prior year saw record-setting lease auction sales in the New York Bight, followed by the first ever floating wind leases awarded off the coast of California.

Enthusiasm in the industry was at an all-time high but dropped precipitously in 2023 as a series of headwinds and rip currents combined to create rough seas for the fledgling industry. Inflation, skyrocketing raw material costs, supply chain immaturity, vessel shortages, and conflicting state and federal policies created a perfect storm.

As the saying goes, however, every storm eventually runs out of rain, and fourth-quarter indications suggest that the skies may be clearing for the U.S. offshore wind industry. Below we examine the challenges and successes that defined offshore wind in 2023, and we take a closer look at what the future holds.

Level Setting

In order to appreciate the ups and downs of offshore wind this year, a little effort to set the stage may be worthwhile. During the first quarter of 2023, the Bureau of Ocean Energy Management, or BOEM, held a lease auction for the Carolina Long Bay wind energy area that resulted in two lease awards for a total of $315 million in May.

BOEM and industry watchers expected the Gulf of Mexico auction to follow suit in August, but that auction attracted surprisingly lackluster interest, resulting in no bids on the two lease tracts offshore of Texas and just two bids for the single lease offshore of Louisiana, with RWE AG winning that auction for a mere $5 million.

Undaunted, however, BOEM pressed on with its mandate to maximize offshore wind leasing in U.S. waters, announcing draft wind energy areas — a precursor to lease sale auctions — for the Gulf of Maine, the Central Atlantic, offshore Oregon, and a second round in the Gulf of Mexico. All told, BOEM has signed 33 offshore wind leases by the end of 2023, with 18 of those involving projects in advanced stages of development.

In addition to the leasing activity, 2023 was characterized by a rapid acceleration in the rate of review and approval of offshore wind construction and operation plans, the final step in federal approval of an offshore wind development project through issuance of a record of decision.

As of Dec. 1, 2023, six RODs had been issued for commercial scale projects in U.S. waters, all of them off the East Coast: Vineyard Wind 1, South Fork, Revolution Wind, Ocean Wind,[1] Coastal Virginia, and Empire Wind.

Two of those projects are currently under construction. Vineyard Wind 1, which is 15 miles south of the coast of Martha's Vineyard and Nantucket, located in Massachussetts, is in the midst of installing 62 offshore wind turbines at its 800 megawatt project, using U.S. feeder barges to transport monopiles, turbines and blades from the New Bedford Marine Commerce Terminal to a foreign-flagged wind turbine installation vessel, or WTIV, in federal waters.

Similar activity is ongoing at the 132 MW South Fork project, approximately 19 miles southeast of Block Island, Rhode Island, and 35 miles east of Montauk Point, New York, which celebrated a milestone when it delivered power to Long Island from its first operational turbine on Dec. 6.

Stormy Seas

Despite the regulatory momentum behind offshore wind, the latter half of the year featured an accelerating cascade of negative headlines. Following months of speculation, in July, project developer Avangrid Inc. paid $48 million to pull out of its power purchase agreements, or PPAs, with the state of Massachusetts for its Commonwealth Wind project, touching off a torrent of market instability.

Shortly thereafter, South Coast Wind announced it would cancel its own PPA in Massachusetts, followed by Avangrid's cancellation of another PPA, this one with Connecticut utilities for its Park City Wind project. After the tumultuous summer, fall ushered in one of the most significant market setbacks when Ørsted announced the cancellation of two of its projects in New Jersey: Ocean Wind 1 and 2.

Citing inflation, rising material costs, and a lack of vessel availability, Ørsted's inability to make the economics

work on two of its larger projects in which it had already invested heavily sent waves through the market.

It is worth unpacking the conditions that have created the current volatility in the U.S. offshore wind industry. Inflation is a popular scapegoat for many financial woes these days, but for offshore wind in particular, its effects are amplified.

Consider that for offshore wind projects, the development life cycle may span north of four to eight years from lease auction to power generation. Projects like Ocean Wind 1 and 2 were bid into PPA procurement auctions at prevailing economic conditions from 2020, when inflation was near record lows and the prevailing geopolitical landscape was far less precarious prior to the Ukraine and Israel-Hamas conflicts.

Under those conditions, the cost to finance a $10 billion capex project was significantly lower at 3% than the current 7%, given that the majority of development costs are incurred upfront, and in many cases the PPAs lock in electricity prices at the time of contracting.

Moreover, prior to the onset of the current conflicts, raw materials like steel from Ukraine were more widely available at appreciably lower cost. Further compounding the challenges, increased offshore wind development in Europe and elsewhere has strained the global supply chain, creating backlogs at all the major turbine manufacturers.

Additionally, significant litigation in both the U.S. and the U.K. involving GE Vernova's market-leading 14 MW Haliade-X turbine, or the Original Haliade-X, has resulted in unexpected costs for both GE and its customers. The litigation centered on claims by competitor Siemens Gamesa that the Original Haliade-X infringed its intellectual property.

Conflicting decisions in the parallel lawsuits led to market disruptions, particularly for developers that had designed their projects using the Original Haliade-X and were left to reconfigure project designs to accommodate different turbines, as required by the U.S. District Court for the District of Massachusetts.[2]

Additional consternation has resulted from what was intended to be a game-changing boon to renewables in the U.S. — the Inflation Reduction Act. While the IRA has unquestionably accelerated investment in the renewable energy production and storage markets, its applicability to offshore wind has been opaque, at best.

Take, for example, Jones Act-qualified offshore wind vessels,[3]a critical component for construction of offshore wind in U.S. waters; an asset that is largely lacking — and yet despite identifying offshore wind vessels as qualifying energy property, the IRA failed to clearly set out parameters to incentivize investment in construction of expensive new-build U.S. vessels.

Although it explicitly provides tax incentives for shipbuilders, it leaves significant ambiguity around whether those bearing the cost of the new builds — the vessel owners — are similarly entitled to claim either the production or investment tax credits under the IRA.

Sticking with the topic of vessels, as Ørsted and many other developers have discovered, the complexities of the Jones Act significantly limit the operations that may be undertaken by foreign vessels. The trouble is that there

currently[4] are no Jones Act-qualified WTIVs to install wind farms in the U.S.

Instead, a feedering vessel solution has emerged whereby qualified U.S. tug and barge companies transport the monopiles, turbines and blades from U.S. ports out to wind farm development sites, where anchored, foreign-flagged WTIVs collect the components and install the turbines. However, this solution adds to the cost and complexity of already expensive, complex projects.

Finally, offshore wind in the U.S. continues to encounter opposition from environmental groups, as well as those with political agendas.

Numerous prominent environmental organizations, including the National Audubon Society, the National Wildlife Federation, the Ocean Conservancy, the Sierra Club and the Natural Resource Defense Counsel have been largely supportive of responsibly developed offshore wind in the U.S.

However, organizations like Protect Our Coast NJ, Maine Lobstermen's Association, Save Long Beach Island, and the American Coalition for Ocean Protection, among others, have largely seized on three issues to oppose development of offshore wind projects: (1) protection of right whales and other ocean mammals; (2) avian and bat interference; and (3) effects on commercial fishermen.

While the prevailing view among scientists discredits claims[5] related to (1) and (2), these groups, many of which are funded by the fossil-fuel industry,[6] continue to file lawsuits and wage campaigns against offshore wind that have led to significant costs and delays for offshore wind developers.

State Procurement Upheaval

Nowhere in the U.S. is the development of offshore wind more important than the Northeast, where there is a dearth of available land for the siting of onshore wind and solar projects, a lack of access to fuel transported via pipeline or ship, and strong popular and political support for measures to reduce fossil fuel use and combat climate change.

Nonetheless, state solicitations for procurement of power from offshore wind, which were previously highly competitive in the region, drew less engagement over the summer, and surviving contracts continued to face challenges.

In July, Rhode Island rejected Ørsted and Eversource's PPA proposal for the 884 MW Revolution Wind 2 project on the basis that it was too expensive for Rhode Island ratepayers.

In early October, Avangrid was unable to find financing for the escalated costs to which it was bound in its PPA for the Park City Wind project with Connecticut electric distributors, forcing Avangrid to terminate the contract. Later in the month, New York, long a champion of offshore wind, found itself with a Hobson's choice between allowing existing contracts to be market adjusted, on average to a price increase of 48% to accommodate inflationary impacts to developers, or to effectively push project developers into canceling offtake agreements to protect its ratepayers.

Ultimately, New York held fast, declining to allow developers to renegotiate their existing contracts. During the same month, however, New York announced the winners of its third solicitation, awarding contracts to four projects in the New York Bight for a total of 4 gigawatts of new offshore wind power.

Stabilization Through Coordination

Against the backdrop of mounting market disruption, New England states began to explore strategies to stabilize the industry and its floundering development projects. In September, six New England governors implored the Biden Administration to take immediate action to bolster the fledgling offshore wind industry, given its centrality to their respective states' energy policy.

The governors of New Jersey, New York, Connecticut, Maryland, Massachusetts and Rhode Island signed on to a letter requesting: (1) updates to the IRA clean energy tax credit guidance to clarify its applicability to offshore wind projects; (2) establishment of a revenue sharing program, whereby some portion of the revenue generated from BOEM leases would be allocated among the states where offshore wind power is interconnected and distributed; and (3) to expedite permitting for clean energy projects.

Additionally, a number of the Atlantic seaboard states announced new legislation in 2023 designed to catalyze offshore wind development.[7]

Further evidencing support for a regional approach to market stabilization, in October, Massachusetts, Connecticut and Rhode Island entered into a memorandum of understanding to coordinate their respective offshore wind procurement processes, soliciting multistate proposals, which would permit the states to award solicitations in tandem, if they so choose.[8]

Massachusetts had previously announced its largest solicitation, for up to 3.6 GW and included measures that are indexed to account for inflation and allow prior PPA holders to rebid their projects into the solicitation. Shortly thereafter, Connecticut and Rhode Island issued their respective 2 GW procurement solicitations.

In early December, New York issued its fourth offshore wind solicitation with retooled procedures to account for inflationary effects in the solicitation process and providing a mechanism for existing contract holders to rebid into the solicitation, and if successful, have the terms of the new contract entirely replace the existing one that was no longer viable.

On the opposite coast, California has accelerated efforts to establish the state as the world leader in floating offshore wind. With the passage of several recent laws, California has adopted a framework to streamline and expedite offshore wind procurement.

Among other things, A.B. 1373 allows the state to enter into long-term contracts for power purchases and allows for centralization of the procurement process through one or more competitive solicitations. A.B. 3 requires the preparation of a second-phase plan for port readiness, and an analysis of manufacturing capability and workforce readiness. Finally, S.B. 286 clarifies the roles of state entities involved in permitting reviews.

The Horizon

2023 was unquestionably challenging for offshore wind in the U.S., but despite significant setbacks, there is still tremendous momentum behind the industry.

Northeastern states cannot meet their ever-growing power demands without it; President Joe Biden has made offshore wind a key aspect of his energy strategy; recent legislation supports its growth, and real progress has been made toward commercial scale U.S. offshore wind, including the delivery of first power from the South Fork project to the grid in New York on Dec. 6, marking the first power generated from a utility-scale offshore wind project in the U.S.

On the vessel front, in addition to construction of Dominion's WTIV, shipyards in Florida, Louisiana, Pennsylvania, Rhode Island, Texas, Washington and Wisconsin are currently building Crew Transfer Vessels, Service Operation Vessels, survey vessels and scour protection vessels for the U.S. market.

Private capital has begun to flow into offshore wind investments, as witnessed by the large number of joint ventures that were created in 2023 to address various aspects of the industry.

At the project level, strategic buyers have begun purchasing equity stakes in existing projects, akin to Apollo's investment in U.S. Wind in 2020.

For example, in October, Corio Generation, a portfolio company of Macquarie Asset Management, entered into a joint venture with TotalEnergies to develop the Attentive Energy project in the New York Bight, and we are starting to see additional M&A interest in the industry.

At the infrastructure level, market heavyweight Morgan Stanley Infrastructure Partners announced in October that it had taken an 80% stake in Crowley Wind Services, which manages the development of the Salem Offshore Wind Port and a fleet of tugs and barges chartered to developers to assist with feedering in the installation of turbines at several U.S. offshore wind projects.

Vessel owners and operators are actively contracting with original equipment manufacturers and project developers to reserve vessels for project construction in 2024 and beyond. Thus, despite significant headwinds in 2023, with improving economics, more flexible procurement procedures, continued federal support, and increasing legislative support, the U.S. offshore market appears to have weathered the worst of the storm and is poised for growth in the coming year.

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[1] In early November 2023, Orsted announced the cancellation of its Ocean Wind project, bringing the total of viable, fully permitted US projects down to five.

[2] See Siemens Gamesa Renewable Energy A/S v. General Electric Co., Civil Action No. 21-10216-WGY (D. Mass. Feb. 2, 2023), Memorandum and Order of Judge Young.

[3] See 46 U.S.C. § 55102. Commonly called the "Jones Act," this cabotage law restricts the transportation of merchandise (which includes offshore wind turbine components) between two coastwise points in US waters to vessels that are "coastwise qualified," meaning that they are US-built, US-owned, and US-crewed. This is a bit of an oversimplification of the law, which permits a small portion of the vessel to be foreign-sourced, a small percentage of the ownership to be non-US citizen, and a small portion of the crew to be lawful permanent residents in lieu of citizens, but for all intents and purposes, the existing fleet of vessels capable of installation, servicing and maintaining offshore wind farms is primarily foreign owned, flagged and crewed, and therefore barred from operating between US ports.

[4] The first US WTIV is currently under construction at a shipyard in Brownsville, Texas, commissioned by Dominion Energy for installation of its Coastal Virginia Offshore Wind ("CVOW") Project. The Dominion vessel should be available for chartering by other developers after it completes construction of the CVOW Project, but that will not be until at least 2025.

[5] See, e.g. NOAA Fisheries Webpage entitled Frequent Questions – Offshore Wind and Whales, available at https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-life-distress/frequent-questions-offshore-wind-and-whales (debunking claims that right whales in New England are being killed due to activities related to offshore wind development); see also, Example of National Audubon Society article regarding responsible offshore wind project development, available at https://www.audubon.org/news/on-earth-day-ensuring-future-offshore-renewables-bird-friendly (acknowledging that wind turbines can pose hazards to avian species, but advising that the risks of climate change pose far greater threats to their existence and that hazards can and are being mitigated).

[6] See, e.g. Fossil fuel money lurks behind anti-offshore wind power political ads in New Jersey, Energy and Policy Institute, available at https://energyandpolicy.org/fossil-fuel-funding-anti-offshore-wind-ads/.

[7] Recent legislation in support of offshore wind on the Atlantic Seabord includes: Maryland: POWER Act, SB0781/HB 793); Massachusetts: An Act Driving Clean Energy and Offshore Wind, H5060; Rhode Island: 100% Renewables Bill, (H-7277A/S-2274A) and the Affordable Clean Energy Security Act S 2583); Virginia: S.B.1441 to

streamline offshore wind development in line with state’s 100% renewable energy mandate.

[8] See “Offshore Wind Multi-State Coordination, Memorandum of Understanding By and Among the States of Connecticut and Rhode Island and the Commonwealth of Massachusetts,” available

at https://portal.ct.gov/-/media/DEEP/energy/Procurements/MARICT-Offshore-Wind-Procurement-Collaboration-Memorandum-of-Understanding–Final-10323-CEM-Sig.pdf

.Other regional collaborations also exist between New Jersey and New York, with their Shared Vision collaboration, and among Virginia, Maryland and North Carolina

through their SMART-POWER initiative.

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