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State of Play: Offshore Wind May 2024



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Late last year, Third Way [updated you](#) on the challenges facing offshore wind, an industry battling serious supply chain problems and unexpectedly high costs. We largely attributed these challenges to a combination of unprecedented global events, including the COVID-19 pandemic and Russia's invasion of Ukraine.

Today, though the pandemic is largely over and the global supply chain has somewhat stabilized, offshore wind continues to struggle, presenting real challenges for energy sector decarbonization. Let's take a look at the current state of play.

Barriers to Deployment

Throughout development and construction, each new offshore wind project encounters multiple opportunities for delay, deferral, and obstruction: early bureaucratic challenges and permitting

delays, workforce limitations, lawsuits, and supply chain vulnerabilities can all slow or halt a project's anticipated timeline.

Developers face a long and exceedingly expensive procurement, siting, and permitting process before they can even break ground. Prior to construction, developers must bid for and purchase an ocean lease, reserve component parts, secure a power purchase agreement, and meet dozens of (often competing) bureaucratic requirements across local, state, and federal jurisdictions. This years-long process of preparing for construction can cause prices to shift from initial estimates and, in turn, make it harder to bring projects to completion.

Many developers also struggle to find an adequate workforce to meet their needs, both during and after construction. Offshore wind remains a nascent industry and relatively few workers have adequate training to support construction and operation. A 2024 study from the National Renewable Energy Laboratory (NREL) found that, by 2030, land-based and offshore wind can expect a labor shortage of roughly 124,000 workers, a serious obstacle to efficient construction and deployment.

Even if a project can meet complex requirements, secure required components, and mobilize the workforce needed to build and operate the plant, potential litigation looms on the horizon. Environmental advocates, fossil fuel interest groups, beachgoers, and other local groups often push back on offshore wind developments, citing concerns ranging from disturbing the local landscape to distressing marine life. Recent legal disputes, such as those encountered by the **Revolution Wind** and **Coastal Virginia Offshore Wind** projects in the Northeast, underscore the uphill battle these ventures face in coming online.

Lastly, offshore wind faces a profoundly vulnerable supply chain, a reality that was made crystal-clear in April when the state of New York canceled contracts for three separate projects. This decision stemmed from GE Vernova's discontinuation of production for its largest 18-megawatt blades, crucial components for these ventures. With GE Vernova holding a monopoly on these specialized blades, the sudden gap in the supply chain left project developers with no alternatives.

Recent Wins

The failure of the New York projects demonstrates just how precarious development and deployment really are—but some ventures do manage to make it over the finish line:

- In February, **Vineyard Wind**, America's first large-scale offshore wind farm, successfully completed the construction of 5 out of its planned 62 turbines, now delivering power to 30,000 homes in Massachusetts.

- The following month, **South Fork Wind** became the first major wind project in the US to complete construction entirely. This 130-megawatt, 12-turbine initiative now provides clean, resilient energy to 70,000 homes in New York.
- Last week, **Revolution Wind**, the first utility-scale offshore wind farm to supply power to both Rhode Island and Connecticut reached an important milestone with the successful installation of a foundation for one of its 65 enormous turbines. Once completed, this 704-megawatt project will supply enough energy to power 350,000 homes across the two states.
- Additionally, Orsted's ECO EDISON service operations vessel (SOV) and Dominion Energy's Charybdis installation vessel recently reached major construction milestones, representing a turning point for offshore wind. ECO EDISON will serve as a floating home for offshore wind technicians when deployed at sea while Charybdis will allow US developers to comply with the Jones Act, an old law requiring American ships to transport goods between American ports (a definition that extends to offshore wind farms). Together, these new vessels chart the path towards a self-reliant offshore wind sector and represent a boon to the American shipbuilding sector.

These projects succeeded due, in large part, to the tenacity and resilience of their developers. It should not be unusual for offshore wind to make it this far in the deployment process, but these projects did—setting the stage for future progress.

Smooth-er Sailing Ahead

In the success of projects from **Vineyard Wind**, **South Fork Wind**, and **Revolution Wind**, the US can see its efforts come to fruition, reaching construction milestones on large-scale projects and enabling the delivery of new clean electricity. But, popularizing offshore wind in the US requires more than a few projects putting steel in the ground; substantive policy support is required as well.

Luckily, the Biden Administration has landed several key reforms to advance offshore wind deployment, helping to strengthen this burgeoning market:

- **Robust federal funding and cost savings:** The Biden Administration's support for clean energy through the Inflation Reduction Act and the Bipartisan Infrastructure Law has been massively beneficial for wind and other clean energy technologies. Two recent moves have boosted that funding's efficacy for wind and resulted in serious cost savings for developers: in March, the Treasury Department expanded the Inflation Reduction Act's energy community bonus tax credit, creating a pathway for offshore wind projects that meet certain criteria to receive additional federal support. In April, the Bureau of Ocean Energy Management (BOEM) finalized a rule that streamlines and modernizes offshore wind development activities; increasing survey flexibility, improving project installation verification processes, and clarifying safety management provisions. Over the next two decades, this important rule is expected to rack in nearly \$2 billion in cost savings for the industry.
- **Greater certainty and predictability:** In April, BOEM released a five-year offshore wind leasing schedule, including up to 12 potential lease sales from the Gulf of Maine to the Gulf of Mexico. This schedule will provide developers and impacted communities with both predictability and transparency in the offshore wind leasing process, a critical step in bolstering the nascent industry.
- **New, fast-tracked federal permits under FAST-41:** In April, the federal government approved environmental permits for Dominion Energy's **Coastal Virginia Offshore Wind** project, the largest planned in the US. Once completed, it will produce 2.6 GW of renewable energy, powering 660,000 homes. The project was expedited under the Federal Permitting Improvement Steering Council's FAST-41 program, completing its reviews in just three years. Projects that meet a certain set of criteria can apply to become a part of the FAST-41 program, an initiative focused on increasing collaboration and transparency in the permitting process.
- **Additional federal approvals:** In the same month, BOEM approved two large offshore wind projects for the Massachusetts coast, **New England Wind 1** and **New England Wind 2**. These approvals, combined with BOEM's approval of **Sunrise Wind** in March, marked an important moment for the Biden Administration, as it has now approved a third of its goal of deploying 30 GW of offshore wind by 2030.

When we look holistically at the recent actions of the federal government and industry, we can see signs of growth and improvement—but the work is far from complete. Additional policy actions including permitting reform, workforce development, and offshore transmission buildout would enable the US to build a strong, ambitious, and competitive offshore wind industry—but that future is far from guaranteed.

On the Horizon: Offshore Wind in the 2024 Election

In November, Americans will go to the polls to elect the next president of the United States. Under a second Biden Administration, we expect continued federal commitment to this growing industry, with the opportunity for additional policy wins depending on Congressional makeup.

Conversely, former President Trump poses an existential threat to offshore wind. Here are just some of the ways Trump could destabilize the industry just as it's finding its footing:

- **Executive Action:** Recently, Trump announced plans to “end” offshore wind development “day one” in office through an executive order. While this announcement lacked any details, an EO from a Trump administration targeting offshore wind would certainly shake investor confidence in the young industry.
- **Stall the permitting process:** In 2019, Trump used the confusing, and often tedious, siting and permitting process to draw out Vineyard Wind’s pre-construction phase. This unexpected delay threatened the project’s overall economics and led to postponed operations. Another Trump administration could pull the same stunt, disrupting the nascent industry’s attempts to secure its foothold in America’s energy mix.
- **Modify IRA tax credits:** Most experts agree that a second Trump administration would have a difficult time repealing the IRA tax credits. A more feasible outcome would entail an administrative push to change which technologies qualify under certain credits. With Trump’s public derision of offshore wind ramping up once more, this technology would likely be first on the chopping block.

Offshore wind is a globally mature, powerful, sustainable, and increasingly cost-competitive means of electricity generation, poised to play a central role in reaching both state and national decarbonization targets while boosting domestic manufacturing activities across the country. The offshore wind industry is at the cusp of realizing its full potential, but it will need continued, robust federal support to get there.