

Offshore Wind – The Current State of Affairs

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In this article, the authors explore the current and potential state of tax law concerning the development of offshore wind facilities, and they examine some practical, regulatory, and financial hurdles facing the offshore wind industry.

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I. Introduction

Renewable energy development and the “energy evolution” continue to make a splash in energy infrastructure, legislation, and investment. And, among renewable energy technologies, offshore wind may be set to catch the biggest wave. The United States — unlike Europe, which has an advanced offshore wind industry — has been slow to capitalize on the benefits provided by offshore wind farms. But the Biden administration is looking to catch up fast —

calling for offshore wind capacity to double by 2030.¹

Today, the United States has only two offshore wind facilities in commercial operation — which, combined, have less than 50 megawatts of generation capacity — leaving this powerful resource largely untapped.² However, thanks to a

¹James Agyepong-Parsons, “Biden Commits to Doubling Offshore Wind,” *Wind Power Monthly*, Jan. 28, 2021.

²Dharna Noor, “President Joe Biden Approves Nation’s First Major Offshore Wind Farm,” *Gizmodo.com*, May 11, 2021.

few key moves by the administration, renewable energy developers and investors are motivated to capitalize on the swell of offshore wind energy potential the United States has to offer. The administration's most notable action to bolster support for offshore wind occurred in early 2021, when the departments of Interior, Energy, and Commerce announced a shared goal to deploy 30 gigawatts of offshore wind in the United States by 2030.³

Following this announcement, the administration dove into action and in May issued the final federal permit for the country's largest planned offshore wind farm — the Vineyard Wind 1 Project — a \$2.8 billion, 800-megawatt wind energy facility composed of approximately 84 wind turbines to be located near the coast of Martha's Vineyard.⁴ The Vineyard Wind 1 Project is expected to create 3,600 jobs and produce enough renewable electricity to power 400,000 Massachusetts homes every year while also saving ratepayers billions of dollars and reducing annual carbon dioxide emissions in the state by about 1.68 million metric tons.⁵ Lars Pedersen, CEO of Vineyard Wind, expects offshore construction to begin next year, with renewable energy flowing to the grid by the end of 2023.⁶

Greenlighting the Vineyard Wind 1 Project is one of the first steps in the administration's ambitious push to get the United States into the offshore wind game. The Vineyard Wind 1 Project provides a blueprint for the development and construction of subsequent large-scale offshore wind farms subject to the United States' regulatory framework and insight into their potential economic benefits. The expectations of the offshore wind industry are that more approvals are forthcoming and that the development of offshore wind facilities in the United States will start in earnest.

This article explores the current state of the tax law regarding the development of offshore wind facilities and which way it might be headed, and examines how the offshore wind industry may be affected by tax credits and other tax benefits. At the end of the article, based on our significant experience in renewables, U.S. infrastructure, and the tax equity industry, we've outlined certain practical, regulatory, and financial hurdles facing the offshore wind industry. Overcoming these hurdles will require a unique level of guidance and expertise, but given the potential upside, will be worth the challenge.

II. Tax Benefits for Offshore Wind

A. Tax Credits

To help encourage the development of renewables generally, the Internal Revenue Code provides attractive tax benefits. For offshore wind in particular, the code provides lucrative tax benefits to the owners of offshore wind facilities to help offset the significant development and construction costs associated with them. The most powerful tool afforded to owners of offshore wind facilities is the investment tax credit under section 48.

The ITC is available for "qualified offshore wind facilities" that "begin construction" before January 1, 2026.⁷ The ITC provides owners of qualified offshore wind facilities a dollar-for-dollar tax credit equal to 30 percent of the cost of tangible personal property or other tangible property (other than buildings or its structural components) integral to a qualified offshore wind facility.⁸ For this purpose, a "qualified offshore wind facility" is a facility located in the inland navigable waters of the United States or in the

³ President Joe Biden, "Executive Order on Tackling the Climate Crisis at Home and Abroad," at section 207, Jan. 27, 2021.

⁴ Anmar Frangoul, "'A Huge Moment': U.S. Gives Go-Ahead for Its First Major Offshore Wind Farm," CNBC, May 12, 2021.

⁵ Liz Stark and Caroline Kelly, "Biden Administration Approves First Major Offshore Wind Project in U.S. Waters," CNN, May 11, 2021; and Miriam Wasser, "Biden Administration Approves 1st Major Offshore Wind Energy Project," NPR, May 11, 2021.

⁶ Wasser, *supra* note 5.

⁷ Section 48(a)(5)(F).

⁸ *Id.* Unlike other technologies eligible for the ITC, offshore wind facilities are not subject to phase out of the ITC percentage and will be entitled to the full 30 percent ITC as long as construction begins before January 1, 2026. Also note that the definition of integral property does not include land or "transmission property"; however, several pieces of proposed legislation, including the administration's American Jobs Plan, are designed to provide an ITC for "transmission property." See Electric Power Infrastructure Improvement Act, H.R. 2406, introduced by Rep. Steven Horsford, D-Nev., Sen. Martin Heinrich, D-N.M., and Rep. Susie Lee, D-Nev., on April 8, 2021.

coastal waters of the United States using wind to produce electricity.⁹

If a taxpayer does not elect the ITC for a qualified offshore wind facility, she may claim production tax credits (PTCs) under section 45 for energy produced by qualified offshore wind facilities that begin construction on or before December 31, 2021.¹⁰ Under section 45, qualified offshore wind facilities are subject to the same rules and requirements as wind facilities on land. As such, PTCs are available to owners of qualified offshore wind facilities that “begin construction” on or before December 31, 2021,¹¹ but if construction of an offshore wind facility began after December 31, 2016, the dollar amount of PTCs per megawatt-hour (MWh) will be subject to reduction based on the year in which construction began.¹²

A high-level comparison of the ITC and PTCs illustrates that the wind may blow in favor of the ITC. For one, concerning the development and construction process, the ITC provides offshore wind facilities an extended beginning of construction period and, unlike PTCs, the ITC is not subject to a phaseout based on the year in which construction begins. Second, when considering the relatively large construction and development costs of offshore wind facilities compared with wind facilities on land, and that the dollar amount of the ITC is based on the construction costs whereas the dollar amount of PTCs is based on the amount of energy produced by that facility, the ITC may provide a larger tax benefit for offshore wind facilities when compared with PTCs. As such, owners of offshore wind facilities are likely to elect the ITC; however, we understand this issue is still being studied by the investor community.

B. Beginning of Construction Rules

As noted, under either the ITC or PTC regime, the availability of tax credits for a renewable energy facility (if any) largely depends on the year in which construction of the facility begins. To establish this, offshore wind facilities are generally subject to the same “begun construction” standards as onshore wind projects. Although the code does not define what it means to “begin construction,” the IRS has issued various notices that provide guidance on how to establish the beginning of construction of a renewable energy facility for purposes of the ITC and PTC.¹³ In accordance with those rules, owners of offshore wind facilities may establish the beginning of construction under either the “physical work test” or the “5 percent safe harbor.”¹⁴

Under the physical work test, construction begins when physical work of a significant nature begins — this may include onsite physical construction or offsite manufacturing of components that will be incorporated into the facility.¹⁵ Under the 5 percent safe harbor, construction is viewed as having begun when a taxpayer pays or incurs 5 percent or more of the total cost of the qualified facility.¹⁶

To establish the beginning of construction, in addition to initially satisfying the physical work test or the 5 percent safe harbor, taxpayers must satisfy a continuity requirement. For qualified facilities the construction of which began in 2016-2019, the continuity requirement is satisfied if the facility is placed in service within six calendar years after the calendar year in which construction began, and, for qualified facilities that begin construction in later years, within four calendar years after the calendar year in which

⁹ Section 48(a)(5)(F).

¹⁰ PTCs provide owners of qualified offshore wind facilities with dollar-for-dollar tax credits based on the amount of energy (measured in MWhs) produced by the qualified offshore wind facility.

¹¹ Section 45(d)(1).

¹² Under section 45(b)(5), the PTC is available at the 100 percent rate if construction begins before December 31, 2016, and is subject to a 20 percent phaseout for each year thereafter until December 31, 2019, and at the 60 percent rate if construction begins after December 31, 2019, and before January 1, 2022 (that is, in 2020 or 2021). Taxpayers do not have the option to claim section 45 PTCs on offshore wind projects that begin construction after December 31, 2021.

¹³ For PTCs, these notices include Notice 2013-29, 2013-20 IRB 1085, as clarified by Notice 2013-60, 2013-44 IRB 431, as modified and further clarified by Notice 2014-46, 2014-35 IRB 520; Notice 2015-25, 2015-13 IRB 814; Notice 2016-31, 2016-23 IRB 1025; Notice 2017-04, 2017-3 IRB 541; Notice 2019-43, 2019-31 IRB 487; and, for the ITC, Notice 2018-59, 2018-28 IRB 196, in each case as modified and further clarified by Notice 2020-41, 2020-25 IRB 954, Notice 2021-5, and Notice 2021-41, 2021-29 IRB 1 (the beginning of construction requirements).

¹⁴ Notice 2013-29 and Notice 2018-59.

¹⁵ Notice 2013-29, section 4; and Notice 2018-59, section 4.

¹⁶ Notice 2013-29, section 5; and Notice 2018-59, section 5.

construction began (the continuity safe harbor).¹⁷ If a taxpayer fails to satisfy the applicable continuity safe harbor, then she must otherwise demonstrate that the facility met the continuity requirement based on applicable facts and circumstances — generally requiring proof that ongoing construction or development efforts have been performed continuously.¹⁸ Recognizing that offshore wind facilities are subject to delays that result in longer development timelines compared with wind facilities on land because of, among other reasons, stringent permitting requirements, the difficulty of installing equipment offshore, heightened environmental regulation, and required transmission upgrades, the IRS extended the continuity safe harbor for offshore wind facilities to 10 calendar years after the calendar year in which construction began.¹⁹ This extended continuity safe harbor period applies to “offshore facilities” — that is, offshore wind facilities (1) that will be placed in service in inland navigable waters or coastal waters of the United States and (2) will require the construction of one or more high-voltage transmission lines to connect an offshore wind facility to the U.S. electrical grid system.²⁰

As explained earlier, based on the beginning of construction requirements, for an offshore wind facility to qualify for any PTCs, construction on that facility must begin by the end of 2021 (and will be subject to PTCs at reduced rates if construction began after December 31, 2016), and the facility must be placed in service within 10 years of beginning construction. However, a taxpayer can elect the ITC in lieu of PTCs and be entitled to the ITC at the full 30 percent rate as long as construction begins by the end of 2025 and the facility is placed in service within 10 years.

C. Depreciation

While certainly less powerful than tax credits, the code also provides tax benefits in the form of

depreciation deductions.²¹ Energy-generating property, including wind turbines, is generally viewed as “5-year” property — that is, property that may be depreciated on an accelerated basis over five years.²² Non-energy-generating property, however, such as transmission lines, is generally treated as 15-year property.²³ As offshore wind facilities will likely require significant expenditures concerning transmission, it is reasonable to expect that offshore wind facilities will have more 15-year properties compared with wind facilities on land.²⁴

Both five-year and 15-year property are also eligible to elect immediate expensing in lieu of accelerated depreciation. As such, depending on the year the property is placed in service, a taxpayer may be entitled to immediately deduct all or a large portion of the cost of that property in the year that property is placed in service.²⁵

D. Legislative Proposals

As of the writing of this article, there are many legislative proposals concerning renewable energy put forth by the administration and percolating through Congress. There is hope that one of them will succeed in some form and provide, at a minimum, an extension of the beginning of construction deadlines described above. One of the proposals introduced in the Senate — the Clean Energy for America Act, S. 1288 — would create technology-neutral tax credits, thus expanding the types of technology eligible for ITC-like credits. While this may be highly beneficial to more novel technologies not eligible for the ITC or PTCs, it could potentially eliminate the extended beginning construction period for offshore wind facilities.

Another feature included in several pieces of proposed legislation and promoted by the administration is a “direct pay” option. Under

²¹ While tax credits provide taxpayers with a dollar-for-dollar reduction of their tax liability, depreciation reduces taxable income.

²² Section 168(e)(3)(B)(vi)(I).

²³ Section 168(e)(3)(E)(v).

²⁴ As noted, transmission property is currently not ITC eligible, so if a taxpayer elects to claim an ITC in lieu of a PTC for an offshore wind facility, the percentage of property eligible for an ITC will likely be lower for an offshore facility as compared with an onshore facility.

²⁵ Section 168(k).

¹⁷ Notice 2020-41.

¹⁸ *Id.*

¹⁹ Notice 2021-5.

²⁰ *Id.*

this option, a taxpayer would be entitled to a tax refund (that is, a cash payment) instead of a tax credit. While traditionally a taxpayer may realize the value of tax credits only to the extent of his tax liability, with direct pay, a taxpayer would realize the value of tax credits regardless of the amount of tax he owes.²⁶ As such, developers of offshore wind facilities would be able to finance a portion of the development through the code and would not require a tax equity investor to do so — which may encourage further development of offshore wind facilities even when tax equity financing is hard to come by.

III. Challenges for Offshore Wind

Challenges facing the offshore wind industry include increased construction risks compared with onshore wind facilities, both from a timing perspective and a cost-overrun perspective. The likelihood of construction delays requires investors to ensure that project agreements contain a sufficient cushion for delays of construction milestone deadlines. Also, investors must consider how long they are willing to tie up their capital for a facility that may likely encounter several delays.

Because of the nature of offshore wind facilities, a heightened level of operation and maintenance experience will likely also be required.²⁷ Obviously, as transmission lines for offshore wind facilities are constructed on the ocean floor, an offshore wind facility will require longer and more complex transmission lines and capabilities. Further, the logistics of developing and operating a wind facility in the middle of the ocean undoubtedly creates additional risk. Because the performance of services on offshore wind facilities is riskier than on onshore wind facilities, fewer contractors may be available and capable of providing these services. As a result, developers may see increased costs for operation and maintenance services.²⁸

Also, offshore wind facilities located within state waters are subject to state regulations, and offshore wind facilities located in federal waters fall under the jurisdiction of the Bureau of Ocean Energy Management. Developers of offshore wind facilities located in federal waters must submit a site assessment plan, a construction and operations plan, and must prepare an environmental impact statement to assess the physical, biological, and social effect of the proposed offshore wind facility. Because of the U.S. regulatory landscape, the permitting process to date has been slow and lengthy and has been viewed as a limitation on the development of the country's offshore wind resources. Of course, as noted, we expect that this process may be heating up as the administration places increased emphasis on the development of offshore wind facilities.²⁹

Further, offshore wind facilities must comply with a U.S. coastal law known as the Jones Act.³⁰ The Jones Act restricts the waterborne transportation of merchandise and passengers between two points in the United States to “U.S.-flagged vessels” (that is, vessels that are (1) built in the United States, (2) owned and operated by U.S. citizens, and (3) staffed by U.S. citizens).³¹ As such, Jones Act-qualified vessels are needed to carry construction components, equipment, and contractor crews between a U.S. port and an offshore wind facility that is in the United States.³² Until Jones Act-qualified vessels are built, the installation of any offshore wind turbines in U.S. waters will likely be performed by foreign vessels because there are no available Jones Act-qualified vessels with the capabilities to install the larger turbines that developers are planning as facility sizes grow. However, those foreign installation vessels still require Jones Act-qualified feeder vessels to transport the turbines and related components from a U.S. port to the offshore wind facility.³³

²⁹ See *id.*

³⁰ *Id.*

³¹ Merchant Marine Act of 1920 (P.L. 66-261), section 27 (the Jones Act).

³² William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (P.L. 116-283).

³³ Vinson & Elkins, *supra* note 26.

²⁶ Vinson & Elkins, “Will Direct Pay Change the Renewable Energy Investment Landscape?” (Apr. 5, 2021).

²⁷ Query also whether offshore wind facilities will be subject to an increased risk of casualty that could result in ITC recapture for those facilities electing to take the ITC.

²⁸ Vinson & Elkins, *supra* note 26.

Traditionally, renewable energy facilities are financed in part through tax-equity financing, which brings in financial institutions and profitable corporations with large tax bills seeking the tax credits generated by those facilities to offset their tax liability. Those tax equity investors are generally risk averse and often have internal mandates to take all steps possible to mitigate risk. As such, tax equity investors are reluctant to be first movers on renewable energy facilities involving novel renewable energy technologies. These issues may be particularly pertinent for offshore wind facilities in which the ITC will be elected because, under its requirements, investors generally must be certain they are the true owner of the qualified wind facility for federal tax purposes in advance of the facility being placed in service. This typically requires that the investor bear some construction and development risk. In contrast, for qualified facilities electing PTCs, the investor may make its investment after the facility has been fully placed in service and achieved commercial operation.

Nonetheless, the significant costs necessary to develop an offshore wind facility can be expected to result in a proportionately large ITC, which may offset investors' aversion to risks associated with construction and development.³⁴ In turn, the fact that tax equity investors are efficient users of the tax benefits generated by those facilities (that is, the tax credits and depreciation deductions described earlier) makes those investors crucial to the development of offshore wind facilities. So despite the inherent risks (and the fact that tax equity investors are risk averse), we expect the wave of tax equity interest to continue and for tax equity financing to be a key component of offshore wind financing. ■

³⁴On the other hand, given the magnitude of any ITC or PTCs available for a given offshore wind facility, more than one tax equity investor may be required (particularly because investors will not want to eat up all their tax capacity with one investment; they prefer to diversify). This may result in additional transactional inefficiency.