

A photograph of three offshore wind turbines in the ocean under a blue sky with light clouds. The image is split diagonally by a white line, with a solid green triangle in the top-left corner and a white triangle in the bottom-right corner.

Advancing the Growth of the U.S. Offshore Wind Industry:


Federal Funding and Incentives

April 2024



U.S. DEPARTMENT OF
ENERGY





The Biden-Harris Administration is using every tool available to grow an American offshore wind industry that will power millions of homes with clean electricity, create thousands of good-paying jobs across the country, and strengthen our energy security while reducing dangerous climate pollution.

President Biden's Investing in America agenda includes historic support for offshore wind development. This document highlights key programs from the Inflation Reduction Act and Bipartisan Infrastructure Law, as well as other resources from the Departments of the Interior, Energy, Commerce, and Transportation available to support the Administration's goals of deploying 30 gigawatts of offshore wind by 2030 and 15 gigawatts of floating offshore wind by 2035.

Highlighted here are federal resources relevant to 1) tax incentives and federal financing mechanisms to support offshore wind investment, 2) development of associated infrastructure, including transmission, ports, and supply chain buildout, and 3) research, demonstration, and development support for offshore wind energy.¹

¹ This document is intended to inform stakeholders about key federal programs from a subset of federal agencies, but does not encompass all federal resources that could be available to support offshore wind development. For example, the Biden-Harris Administration's [Inflation Reduction Act Guidebook](#) and [Bipartisan Infrastructure Law Guidebook](#) include information about a wide range of other programs that can directly and indirectly support clean energy development, including offshore wind.

1. Tax Incentives and Federal Financing Mechanisms for Offshore Wind Investment

To stimulate the deployment of renewable energy technologies, including offshore wind energy, the federal government provides incentives for private investment, including tax credits and financing mechanisms such as tax-exempt bonds, loan guarantee programs, and low-interest loans.

Tax Credits

The **Inflation Reduction Act (IRA)**, which President Biden signed into law on August 16, 2022, provides for a number of tax credits related to offshore wind project development and manufacturing.

Investment and Production Tax Credits

The primary federal tax provision supporting offshore wind is the energy investment tax credit (ITC). The IRA extends and increases existing ITCs and production tax credits (PTCs) for wind energy projects that begin construction prior to January 1, 2025. Starting in 2025, the IRA converts technology-specific clean electricity tax credits into emissions-based, technology-neutral ITCs and PTCs available to all types of power facilities with zero or net-negative carbon emissions. These technology-neutral clean electricity tax credits in IRA begin phasing out either

after 2033 or when total greenhouse gas (GHG) emissions in the power sector decline to at least 75% below 2022 levels—whichever comes later.

To receive the full credit amounts, projects that began construction on or after January 29, 2023 must satisfy [prevailing wage and registered apprenticeship requirements](#). The base credit amount for projects larger than 1 megawatt that do not meet the prevailing wage and apprenticeship requirements is 20% of the full credit amount.

Additionally, under the IRA, projects can receive multiple bonus credits for any or all of the following:

- 10 percentage points (ITC)² or 10% (PTC) for meeting the following **domestic content thresholds**:
 - 100% of applicable iron and steel components are domestically manufactured, and
 - 20% of costs for manufactured products and components for offshore wind are domestically manufactured, for projects that begin construction through the end of 2024.
- 10 percentage points (ITC)² or 10% (PTC) if certain requirements pertaining to **energy communities** are satisfied. Offshore wind projects can attribute their nameplate capacity to certain types of onshore property, and there are three ways an area can qualify as an energy community:
 - **Coal closures:** A census tract or directly adjoining census tract where a coal mine closed after 1999 or a coal-fired electric generating unit was retired after 2009 qualifies as an energy community.
 - **Statistical Areas:** Energy communities also include areas that have significant

employment or local tax revenues from fossil fuels and higher than average unemployment. Specifically, to qualify for the bonus, a metropolitan statistical area (MSA) or non-metropolitan statistical area (non-MSA) must have or have recently had at least 0.17 percent direct employment, or at least 25 percent local tax revenues related to the extraction, processing, transport, or storage of coal, oil, or natural gas, as well as an unemployment rate at or above the national average unemployment rate for the previous year.

- **Brownfields:** Brownfield sites, which are properties the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant, also qualify as energy communities.

Finally, for some projects, the IRA allows entities to transfer credits to another taxpayer and authorizes direct payments for tax-exempt entities such as nonprofit organizations, electric cooperatives, and tribes. More information about transferability and elective pay is available [here](#).

² The increase is 10 percentage points if prevailing wage and apprenticeship requirements are met, or otherwise 2 percentage points.

Advanced Manufacturing Production Credit (Section 45X)

The IRA also creates a new **advanced manufacturing production credit** for companies that domestically manufacture and sell clean energy equipment in the United States between December 31, 2022, and December 31, 2032.

For wind turbine components, the amount of the credit varies depending on the component type and is multiplied by the total rated capacity of the turbine (expressed on a per watt basis) for which such component is designed.

Blades: 2 cents times total rated capacity

Nacelle: 5 cents times total rated capacity

Tower: 3 cents times total rated capacity

Fixed-bottom offshore wind platform:

2 cents times total rated capacity

Floating offshore wind platform: 4 cents times total rated capacity.

- For critical minerals, the credit is 10% of the cost incurred to produce the mineral.
- For offshore wind vessels, the credit is 10% of the vessel's sale price.

Beginning in 2030, the advanced manufacturing production credit will be reduced by 25% each year and eliminated for components sold after 2032. This phaseout does not apply to the credit for critical minerals.

Qualifying Advanced Energy Project Credit (Section 48C)

The IRA reestablishes the Qualifying Advanced Energy Property Credit, which supports investment in domestic clean energy manufacturing facilities through a competitively awarded tax credit of 6%, or 30% if prevailing wage and apprenticeship requirements are met. Section 48C was established by the American Recovery and Reinvestment Act of 2009 and expanded with a \$10 billion investment under IRA. **Qualified facilities** include facilities designed to produce or recycle wind energy components, including both new facilities and establishment or re-equipping of existing facilities. The IRA provides

for \$10 billion to be competitively awarded for qualifying projects, with at least \$4 billion awarded to investments in communities with previously closed coal plants or mines. The Advanced Manufacturing Production Tax Credit and the Qualifying Advanced Energy Project Credit cannot be used for the same production facility.

energy.gov/infrastructure/qualifying-advanced-energy-project-credit-48c-program

Financing Mechanisms

The federal government also provides federal financing options to support offshore wind energy development, commercialization, and deployment through loan programs. This section highlights key financing programs.

DOE Loan Programs Office (LPO)

LPO serves as a bridge to bankability for innovative and high-impact energy technologies, providing them with access to needed loans and loan guarantees when private lenders cannot or will not provide funding until a given technology has reached full market acceptance. As a burgeoning industry, offshore wind energy has many areas that may benefit from federal loan guarantees, including supply chain facilities, offshore wind installation and service vessels, transmission infrastructure, and others.

- LPO's Title 17 Innovative Clean Energy Loan Guarantee Program authorizes the LPO to guarantee the debt on energy production or manufacturing facilities associated with

energy projects that avoid, reduce, utilize, or sequester greenhouse gas or air pollutant emissions.

- LPO's Tribal Energy Loan Guarantee Program (TELGP) can guarantee up to \$20 billion in loans to support economic opportunities for tribes through energy development projects and activities. The Department accomplishes this by offering partial loan guarantees and working cooperatively with commercial lenders.

energy.gov/lpo/financing-programs



Department of Transportation Maritime Administration (MARAD)

MARAD is responsible for fostering, promoting, and developing the domestic maritime industry to meet the nation's economic and security needs. This includes ports and vessels, which are critically important to offshore wind deployment.

MARAD's Title XI Federal Ship Financing Program provides for a full faith and credit guarantee by the federal government to promote the growth and modernization of the U.S. merchant marine and U.S. shipyards. Through long-term debt repayment guarantees, the program encourages U.S. shipowners to cost-effectively obtain new vessels from U.S. shipyards. It also helps U.S. shipyards modernize their facilities to build and repair vessels. Funding for eligible projects is sourced through regular annual appropriations. Effective June 21, 2022, MARAD

designated the following as Vessels of National Interest (VNI):

- Vessels that are constructed or reconstructed to be used primarily in:
 - Construction,
 - Service,
 - And/or maintenance of offshore wind facilities.

As of April 2024, the Title XI program is actively processing 4 VNI loan applications totaling over \$415 million in requested loan amount. By requested loan amount, these represent approximately 96% of the total dollars requested in active loan applications, as the team has been committed to supporting offshore wind policy goals and objectives.

maritime.dot.gov/grants/title-xi/federal-ship-financing-program-title-xi

2. Sources of Funding for Offshore Wind Transmission, Port Infrastructure, and Supply Chain Buildout

This section highlights key federal programs that are eligible to support the infrastructure and supply chain buildout needed for a robust offshore wind industry³ – including support for transmission, port development, and manufacturing facilities.

³ Many of the funds and resources listed in this document are those for which offshore wind is one of many applicable or eligible uses. Accordingly, this document identifies **Offshore Wind Eligible** funds, those for which offshore wind may apply. It is important to note that since in many cases offshore wind is not the exclusive use for these funds, the actual amount of funding or resources that will be allocated to offshore wind will be a portion of the overall funding availability.

U.S. Department of Energy (DOE)

The U.S. Department of Energy (DOE) has a range of programs with resources relevant to developing infrastructure and supply chains to support offshore wind deployment. Note, many of these programs are broad programs for which offshore wind is one of many potential eligible energy industries.

DOE Office of Manufacturing and Energy Supply Chains (MESC)

MESC is an investment arm of the DOE responsible for strengthening and securing the manufacturing and energy supply chains needed to modernize the nation's energy infrastructure and support a clean and equitable energy transition. Working in close coordination with AMMTO and OCED, MESC not only promotes the development of manufacturing processes and infrastructure through its investments, but also seeks to develop a robust domestic workforce that emphasizes diversity.

- Inflation Reduction Act Offshore Wind Eligible Funds: The Qualifying Advanced Energy Project Credit (48C) was expanded in the Inflation Reduction Act and provides support for clean energy manufacturing and recycling projects, including the production of wind energy components. MESC is supporting Treasury in the implementation of the credit, which is described in the tax credit section above.
- Bipartisan Infrastructure Law (BIL) Offshore Wind Eligible Funds: The Advanced Energy Manufacturing and Recycling Grant program provides \$750 million in

BIL funding to small- and medium-sized manufacturing enterprises (SMMs) for the production of clean energy property in coal communities. SMMs producing or recycling OSW components – including but not limited to wind turbines, towers, floating offshore platforms, and related equipment – are eligible for up to \$100 million to be used to build a new facility or retrofit an existing manufacturing or industrial facility to produce or recycle advanced energy products in communities where coal mines or coal power plants have closed.

- The Rare Earth Element Demonstration Facility grant program provides up to \$140M from the BIL. Two companies have received awards for demonstration projects that will extract rare earth elements (REEs) from coal mine waste streams. REEs are an important part of a wind turbine's permanent magnets, located in the center of the blades in the electrical box (called the nacelle). The permanent magnets are mostly used to increase power generation and reduce maintenance in larger offshore wind turbines.

energy.gov/mesc/office-manufacturing-and-energy-supply-chains

DOE Office of Electricity (OE)

The mission of OE is to lead national efforts to modernize the electric grid; enhance security and reliability of energy infrastructure; and facilitate recovery from disruptions to energy supply. It does this by informing policy solutions pertaining to electric grid reliability, and managing research, development, and demonstration activities for next-generation

electric grid infrastructure technologies. OE's leadership in transmission technology and planning is being leveraged to support regional offshore wind transmission studies.

energy.gov/oe/about-office-electricity

DOE Grid Deployment Office (GDO)

GDO works to provide electricity to everyone, everywhere, by maintaining and investing in critical generation facilities to ensure resource adequacy, and by improving and expanding transmission and distribution systems. GDO was established in 2022, and its Building a Better Grid Initiative administers Bipartisan Infrastructure Law and Inflation Reduction Act funds. It leads the National Transmission Planning studies and interregional and offshore wind transmission planning efforts, helps lead the Offshore Wind Transmission studies, and convenes stakeholders.

Bipartisan Infrastructure Law Offshore Wind Eligible Funds: Up to \$15.5 billion.

- The [Transmission Facilitation Program](#) is a \$2.5 billion revolving fund program that will upgrade and build out new, large-scale interregional transmission lines across the nation.
- The [Grid Resilience State and Tribal Formula Grant Program](#) provides up to \$2.5 billion to

strengthen and modernize America's power grid against wildfires, extreme weather, and other natural disasters exacerbated by the climate crisis. The program will distribute funds over five years to States, Territories, and federally recognized Indian Tribes, including Alaska Native Regional Corporations and Alaska Native Village Corporations.

- The [Grid Resilience and Innovation Partnerships Program](#) provides up to \$10.5 billion to enhance grid flexibility and improve the resilience of the power system against growing threats of extreme weather and climate change. The Program includes three funding mechanisms: the Grid Resilience Utility and Industry Grants, to support activities to modernize the grid and reduce impacts from extreme weather and natural disasters, Smart Grid Grants, for the deployment of technologies to increase the flexibility, efficiency, and the reliability of the power system, and the Grid Innovation Program, to governmental entities to support innovative approaches to transmission, storage and distribution infrastructure to enhance grid resilience and reliability.

Inflation Reduction Act Offshore Wind Eligible Funds: Up to \$2.8 billion.

- The [Transmission Siting and Economic Development Grants Program](#) has \$760 million available in grants to support state and local authorities in the siting and permitting of interstate and offshore electricity transmission lines and provide economic development opportunities in local communities impacted by covered transmission projects. Grant funded activities could include improving the efficiency of siting and permitting, increasing stakeholder engagement, and supporting economic development in communities affected by transmission lines.

- The Transmission Facility Financing direct loan program has up to \$2 billion to finance transmission facilities that are designated to be in the national interest by the Secretary of Energy.
- The IRA provided \$100 million in funding for interregional and offshore wind transmission planning and convening. GDO will use these funds to engage in additional transmission planning and convening efforts to support offshore wind transmission development.

energy.gov/gdo/grid-deployment-office

Department of Transportation (DOT)

DOT's mission is to deliver the world's leading transportation system, serving the American people and economy through the safe, efficient, sustainable, and equitable movement of people and goods.

Department of Transportation Office of the Secretary (OST)

DOT's INFRA (the Nationally Significant Multimodal Freight & Highway Projects program) program awards competitive grants for multimodal freight and highway projects of national or regional significance to improve the safety, efficiency, and reliability of the movement of freight and people in and across rural and urban areas.

- Bipartisan Infrastructure Law OSW Eligible Funds: BIL funds may be used for offshore wind projects, but the law does not mandate

a specific set aside. In FY23-24, DOT awarded a \$426.7 million grant to the Humboldt Bay Harbor to construct a floating offshore wind terminal, the first of its kind in the U.S. The BIL dedicates nearly \$8 billion to the INFRA program through 2026.

www.transportation.gov/grants/infra-grant-program

Department of Transportation Maritime Administration (MARAD)

MARAD's Port Infrastructure Development Program (PIDP) grants support port and freight related infrastructure improvements. The PIDP provides funding to both urban and rural ports for eligible planning and capital projects. It also includes a statutory set-aside for small ports to efficiently improve and expand freight capacity and support local and regional economies.

- Bipartisan Infrastructure Law Offshore Wind Eligible Funds: PIDP BIL funds may be used for offshore wind projects, but the law does not mandate a specific set aside. Since FY22, approximately \$220 million in PIDP grants have been awarded to develop shoreside staging areas and marshaling ports, which will be specifically utilized in the development and the operations and maintenance of wind turbines, at-sea power substations, and ocean cables. The BIL dedicates nearly \$2.25 billion to the PIDP program through 2026.

maritime.dot.gov/PIDPgrants

- MARAD's Small Shipyard Grant Program is designed to support small shipyard projects that make capital and related improvements; or provide training for workers in shipbuilding, ship repair, and associated industries. Supporting these types of projects drives efficiency, competitive operations, and quality ship construction, repair, and reconfiguration across the industry. Funding for eligible projects is sourced through an annual appropriations bill. Several MARAD Small Shipyard grants have been awarded, which will either directly influence the facility's ability to construct offshore wind vessels or expand its ability to respond to the expected maintenance and repair cycle of these vessels.

maritime.dot.gov/grants-finance/small-shipyard-grants

Economic Development Administration (EDA)

EDA invests in communities and supports regional collaboration to create jobs for U.S. workers, promote American innovation, and accelerate long-term sustainable economic growth. EDA is funding investments in high-quality, locally led workforce systems through grants to dramatically transform America's communities including workforce development programs to support the country's growing offshore wind industry.

Public Works and Economic Adjustment Assistance (PWEAA)

EDA's Public Works and Economic Adjustment Assistance programs received \$208 million for FY24 and are designed to be flexible investment tools to help communities meet

their unique economic development needs. These two programs allow for eligible entities to build competitive proposals for planning, design, and construction of facilities, and/

or implementation of programs such as entrepreneurship and workforce development programs that lead to job creation and economic growth.

- The programs require proposals to meet specific criteria including certain economic distress measures, and is restricted to certain eligible public and non-profit entity types. For profit entities and individuals are not eligible for these programs.
- Grants typically range from \$500K to \$4 million.

- Example projects include but are not limited to; public works infrastructure such as water and sewage plants, roads, and workforce training facilities, and program implementation such as workforce development and entrepreneurship support programs.

eda.gov/grant-resources/find-grant-resources

eda.gov/funding/programs/economic-adjustment-assistance

eda.gov/funding/programs/public-works

FY23 Disaster Supplemental

EDA's FY23 \$483 million Disaster Supplemental offers the same flexibility for project types as EDA's Public Works and Economic Adjustment Assistance programs, but exclusively for regions impacted by a federally declared natural disaster that occurred in calendar years 2021 or 2022. EDA expects every project it funds under the Disaster Supplemental to be resilient to future disruptions, to the greatest extent possible, including the impacts of climate change. Projects that focus on offshore wind or related infrastructure could be eligible for funding given the region meets the applicable eligibility requirements and projects are connected to job creation and economic resiliency.

- The programs require proposals to meet specific criteria including certain economic distress measures, and is restricted to certain

public and non-profit eligible entity types. For profit entities and individuals are not eligible for these programs.

- Grants typically range from \$1.5 to \$5 million.
- Example projects include but are not limited to; public works infrastructure such as water and sewage plants, roads, piers and retaining walls, and workforce training facilities, and program implementation such as workforce development and entrepreneurship support programs.

<https://www.eda.gov/strategic-initiatives/disaster-recovery/supplemental>

3. Sources of Funding for Offshore Wind Research, Development, Demonstration, and Deployment

The federal government also provides funding to support offshore wind research and development (R&D), demonstration, commercialization, and deployment through grants or cooperative research and development agreements. This section highlights key programs, which are available through federal agencies that are subject to annual Congressional appropriations, so availability of funds may vary over time.



The Department of the Interior (DOI)

The Department of the Interior (DOI) is committed to increasing clean energy production on public lands and waters and supporting the goals of deploying 30 gigawatts of offshore wind by 2030 and 15 gigawatts of floating offshore wind by 2035. To facilitate this transition to clean energy and meet the President's ambitious goals, the Department has announced an offshore wind leasing strategy that includes holding up to seven new offshore wind lease sales by 2025. This strategy provides two crucial ingredients for success: more certainty for industry, and transparency for our stakeholders and ocean users.

DOI's Bureau of Ocean Energy Management (BOEM)

BOEM is the DOI agency that leads the planning and authorization of offshore wind energy development on the Outer Continental Shelf (OCS), which includes issuing leases, easements, and rights of way, as well as plan reviews and approval. Recent offshore wind lease sales have included credits for bidders that agreed to contribute to programs or initiatives that support offshore wind workforce training programs, development of a U.S. offshore wind domestic supply chain, or both.

BOEM funds and manages scientific research to inform decision making processes for renewable energy projects, including environmental, social, cultural, and other research. Studies are performed via competitive procurements; cooperative agreements with a Tribe, State institution or university; or through agreements with other Federal agencies. In FY23, BOEM allocated approximately \$11 million for offshore wind related environmental studies across the bureau.

Also in FY23, BOEM's Office of Renewable Energy Programs (OREP) obligated over \$4 million in contracts for support including support for the preparation of decision files and environmental assessments; maintenance of ocean data portals; public involvement and consultations support for public comments on draft wind energy areas, public sale notices, and draft programmatic environmental impact statements; visual modeling and assessment; and seismic and geological interpretation software. In FY23, OREP also invested \$320,000 for technology assessment program studies

related to OSW, including a study on fishing gear entanglement and sediment mobility rates.

- **Inflation Reduction Act Offshore Wind Eligible Funds:** BOEM is investing over \$36 million in IRA funds to support offshore wind-related technical and scientific services, programmatic reviews, and stakeholder and community engagement. Through these investments, BOEM will continue to support the sustainable and responsible development of the OCS for renewable energy. Examples include: \$13.8 million in IRA funding toward acoustic impact modeling, passive acoustic monitoring and various North Atlantic right whale-related studies; \$7.5 million to baseline environmental and sociocultural analysis in support of BOEM's new renewable energy authority in the U.S. territories; \$7.3 million to undertake post-lease/pre-construction and operation plans programmatic environmental impact statements for renewable energy; \$476,000 for cumulative visual modeling for offshore wind projects; and \$2.9 million for a cloud computing solution for geological & geophysical interpretive tools and analysis in support of environmental reviews and permitting.

boem.gov/renewable-energy

[boem.gov/environment/environmental-studies/
renewable-energy-research](https://boem.gov/environment/environmental-studies/renewable-energy-research)

<https://www.boem.gov/environment/how-we-do-research>

DOL's Bureau of Safety and Environmental Enforcement (BSEE)

BSEE is responsible for overseeing safety and environmental requirements for facility design, fabrication, installation, operation, and decommissioning, promoting the safety of operations through regulatory requirements and programs such as safety management systems, inspections, rigorous data analytics, incident reporting, and investigations and enforce compliance with all applicable safety, environmental, and conservation laws and regulations. BSEE funds and manages scientific research and technical analysis to inform decision making, and improve safety and standardization, including monitoring the

structural health of offshore wind facilities on the Atlantic, and engineering and geotechnical research. In collaboration with DOE, BSEE also funds the Operation and Maintenance of the Ocean Energy Safety Institute to support improvements in safety and environmental sustainability in offshore energy exploration and production.

bsee.gov/about-bsee/renewable-energy

National Oceanic and Atmospheric Administration (NOAA)

NOAA's science, stewardship, planning and regulatory responsibilities enable sustainable, safe, inclusive and informed offshore wind energy development. NOAA works to minimize and mitigate impacts to marine life, critical ecosystems, and ocean uses through research efforts and facilitating compliance with relevant marine resource management laws. NOAA also supports the offshore wind installation and operations by providing forecasts, observations and ocean mapping data resources, which directly lower the cost of energy. NOAA also supports stakeholder engagement that connects with coastal communities, mariners and ocean users.

- **Inflation Reduction Act Offshore Wind Eligible Funds:** The Ocean-based Climate Resilience Accelerators program will invest in a network of novel business accelerators, which are organizations that support the development of innovative early to mid-stage small businesses through training, resources, mentorship and often seed funding, aimed at bringing products to market. Through this IRA-funded program, in February 2024 NOAA [announced](#) support for 16 awardees in 11 states, including an award to the National Offshore Wind Research & Development Consortium.
- **Northeast Sea Grant Consortium (NESGC) and NOAA's Northeast Fisheries Science Center (NEFSC):** NESGC in partnership with NEFSC is making \$1 million available to support projects to improve understanding of [fishing community interactions with offshore wind development](#) in the U.S. Northeast from the New York Bight through the Gulf of Maine.
- **FY 2025 Budget Request:** NOAA will optimize advances in science and technology to create value-added, data-driven economic opportunities and solutions to pressing societal needs, with an emphasis on offshore wind, alignment of the Tsunami Warning

Centers, and space commerce. In NOAA's FY 2025 budget request, an increase of \$30,823,000 is requested to support the Administration's goal to deploy 30 gigawatts of offshore energy by 2030, while protecting biodiversity and promoting sustainable ocean co-use. Offshore wind development continues to rapidly expand and requires substantial scientific and regulatory review.

noaa.gov/offshore-wind-energy/noaas-role-in-offshore-wind

Department of Energy (DOE)

The U.S. Department of Energy (DOE) has been a global leader in supporting critical wind energy research, development, demonstration, and deployment (RDD&D) for decades, helping usher in commercial wind energy production. Programs relevant to offshore wind are outlined below.

DOE Wind Energy Technologies Office (WETO)

WETO works with businesses, industry, universities, and other organizations that focus on technological developments to improve the reliability and affordability of wind energy and address barriers to deployment. One way WETO encourages the growth of these technologies is by offering competitive Funding Opportunity Announcements for wind energy research, development, and demonstration. WETO supports high-impact projects that can significantly advance its mission to help industry develop more efficient wind-energy technologies that provide Americans with clean, affordable wind energy.

- Bipartisan Infrastructure Law Offshore Wind Eligible Funds: WETO received \$100 million in BIL funds to carry out a breadth of activities authorized in the Energy Act of

2020. \$60 million was appropriated to carry out wind energy research, development, demonstration, and commercialization activities for offshore, land-based, and distributed wind technologies, as well as activities that support the integration of wind energy with the electric grid, while \$40 million was appropriated to support financial assistance for research, development, demonstration, and commercialization projects to create innovative and practical approaches to reuse and recycling of wind energy technologies.

energy.gov/eere/wind/wind-energy-funding-opportunities

DOE Advanced Research Projects Agency

Energy (ARPA-E)— ARPA-E funds technology focused, applied R&D aimed at creating real-world solutions to important problems in energy creation, distribution, and use. The agency's goals are to enhance nation's the economic and energy security through advanced energy technology development and to ensure that the United States maintains a technological lead in developing and deploying advanced energy technologies. To accomplish these goals, ARPA-E focuses on identifying and promoting revolutionary advances in fundamental and

applied sciences; translating scientific discoveries and cutting-edge inventions into technological innovations; and accelerating transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty.

arpa-e.energy.gov/about/apply-for-funding

DOE Advanced Materials and Manufacturing Technologies Office (AMMTO)

AMMTO is dedicated to improving the energy and material efficiency, productivity, and competitiveness of manufacturers across the industrial sector. Deployment of offshore wind energy requires a robust U.S. supply chain that will rely heavily on state-of-the-art manufacturing practices and facilities. AMMTO can leverage many of its areas of expertise,

existing projects, and research facilities to contribute to a variety of offshore wind energy manufacturing needs.

energy.gov/eere/ammto/ammto-open-funding-opportunities

DOE Office of Science (SC)

SC has many existing programs that can be leveraged to benefit offshore wind energy deployment, through the collection, analysis, and modeling of atmospheric data; development of innovative high-performance and scientific-computing techniques; and discovery and design of new materials. SC's Advanced Scientific Computing Research, Biological and Environmental Research, and Basic Energy Sciences programs support basic

research to provide the science and technology innovations to address the technological challenges required to achieve more abundant, affordable, and reliable clean energy solutions, including offshore wind.

energy.gov/science/office-science-funding-opportunities

DOE Hydrogen and Fuel Cell Technologies Office (HFTO)

There is a growing interest in producing clean hydrogen from offshore wind energy to reduce the carbon footprint of hydrogen production, provide an alternative energy source in coastal regions, reduce transmission needs, and provide fuel to the marine industry sector. HFTO has the expertise to advance and optimize hydrogen production technologies from offshore wind energy. Research, development, and demonstration of hydrogen applications are already underway in HFTO's

H2@Scale program and various other activities, including development of a national clean hydrogen strategy, and funding for electrolyzer development and manufacturing. Activities also enable coupling of offshore wind installations for hydrogen production, transport and end use.

hydrogen.energy.gov/

DOE Water Power Technologies Office (WPTO)

WPTO supports research, development, and testing of new technologies to advance marine energy, next-generation hydropower, and pumped storage systems. As many of the energy technologies of interest to WPTO are based at sea, there are many areas that complement some of the RDD&D opportunities and challenges with offshore wind, including infrastructure, such as floating platforms and transmission cabling, and marinization of all components to withstand

harsh oceanic conditions. There is also overlap in environmental research and community engagement practices, because responsible ocean co-use is prioritized by all ocean-based clean energy efforts.

energy.gov/eere/water/water-power-funding-opportunities

DOE Office of Clean Energy Demonstrations (OCED)

Established in 2021 as part of the Bipartisan Infrastructure Law to help scale the emerging technologies needed to tackle our most pressing climate challenges and achieve net-zero emissions by 2050, OCED has over \$25 billion to accelerate clean energy technologies from the lab to the market. OCED delivers clean energy demonstration projects at scale in partnership with the private sector to accelerate deployment, market adoption, and the equitable transition to a decarbonized energy system.

- Bipartisan Infrastructure Law Offshore Wind Eligible Funds: Up to \$1 billion was provided by BIL in support of the [Energy Improvements in Rural or Remote Areas \(ERA\)](#) program to improve the resilience, reliability, and affordability of energy systems in communities across the country with 10,000 or fewer people. To date, the ERA program has announced three funding opportunities worth \$365M.

energy.gov/OCED/ERA

DOE Office of Technology Transitions

In 2015, the Secretary of Energy authorized the formation of the Office of Technology Transitions (OTT) to develop and oversee delivery of DOE's strategic vision and goals for technology commercialization and engagement with the business and industrial sectors across the United States. OTT works to expand the public impact of DOE's RDD&D portfolio to advance the economic, energy and national security interests of the nation. The office integrates "market pull" into its planning to ensure the greatest return on investment from DOE's RDD&D activities to the taxpayer.

- **TCF's Core Laboratory Infrastructure for Market Readiness (CLIMR) Program** – An annual program that improves America's energy competitiveness and security by accelerating commercialization and the shepherding of critical energy technologies from the National

Laboratories to the market. Although only National Laboratories are eligible for funding, CLIMR offers an opportunity for private industry to partner with DOE's National Laboratories to advance energy-related technologies and lab intellectual property toward commercialization.

- **Bipartisan Infrastructure Law Offshore Wind Eligible Funds:** Funded by OCED and EERE, via the Bipartisan Infrastructure Law as part of the TCF, the DOE **Voucher Program** will award up to \$27.5 million and provides technical and business support to domestic organizations that are bringing technologies to market that align with DOE areas of interest.

energy.gov/technologytransitions/office-technology-transitions

Small Business Innovation Research (SBIR) program

The Small Business Administration's SBIR program encourages U.S. small businesses to engage in federal R&D that has potential for commercialization. Its mission is to support scientific excellence and technological innovation through the investment of federal research funds in critical American priorities to build a strong

national economy. Eleven federal agencies, including DOE, participate in the program, soliciting grant proposals from small businesses and making awards on a competitive basis.

sbir.gov

Small Business Technology Transfer (STTR) program

The Small Business Administration's STTR program funds collaborative efforts between small businesses and research institutions with the goal of transferring technologies and products from the laboratory to the marketplace. STTR's focus is on bridging the gap between the performance of basic science and the commercialization of resulting innovations. Five federal agencies, including DOE, participate in the program,

soliciting grant proposals from small businesses and making awards on a competitive basis. from the laboratory to the marketplace. STTR's focus is on bridging the gap between the performance of basic science and the commercialization of resulting innovations. Five federal agencies, including DOE, participate in the program, soliciting grant proposals from small businesses and making awards on a competitive basis.

Summary Table: Critical Areas of Offshore Wind Resources

Each federal resource can broadly be categorized into one or more critical areas of offshore wind development. The table below summarizes which federal resource applies to each critical area of offshore wind.

Federal Program	Cost Reductions	Just & Sustainable Deployment	Supply Chain Development	Transmission Development	Co-Generation Opportunities
DOE Wind Energy Technologies Office	✓	✓	✓	✓	✓
DOE Advanced Research Projects Agency-Energy	✓			✓	✓
DOE Advanced Materials and Manufacturing Technologies Office	✓		✓	✓	✓
DOE Office of Science	✓	✓			
DOE Loan Programs Office	✓		✓	✓	✓
DOE Hydrogen and Fuel Cell Technologies Office			✓		✓
DOE Water Power Technologies Office	✓	✓	✓	✓	✓
DOE Office of Clean Energy Demonstrations	✓				
DOE Office of Technology Transitions Technology Commercialization Fund	✓	✓	✓	✓	✓
DOE Office of Manufacturing and Energy Supply Chains	✓		✓	✓	✓
DOE Office of Electricity				✓	✓
DOE Grid Deployment Office		✓	✓	✓	✓
Small Business Innovation Research (SBIR) program	✓	✓	✓	✓	✓
Small Business Technology Transfer (STTR) program	✓	✓	✓	✓	✓
DOI Bureau of Ocean Energy Management	✓	✓		✓	✓
DOI Bureau of Safety and Environmental Enforcement	✓	✓			
National Oceanic and Atmospheric Administration	✓	✓			
Economic Development Administration			✓		
Department of Transportation			✓		

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