

Notice of Intent No. DE-FOA-0003345

Notice of Intent to Issue Funding Opportunity Announcement No. DE-FOA-0003334

The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Wind Energy Technologies Office (WETO), a Funding Opportunity Announcement (FOA) entitled “Offshore Wind National and Regional Research and Development.”

The goal of this FOA is to address several major areas of need for offshore wind. Specifically, WETO intends to address offshore wind research priorities for floating offshore wind systems and fixed-bottom offshore wind foundations, develop technologies to monitor birds and bats offshore, connect domestic manufacturing and supply chain assets to the U.S. and global offshore wind development pipeline, create a university-led center of excellence for floating offshore wind and advance offshore wind turbine lighting protection.

This FOA may target technologies, education, and supply chains with applicability to offshore wind energy deployments in all regions of U.S. waters including the Atlantic Ocean, Pacific Ocean, Great Lakes, and the Gulf of Mexico.

It is anticipated that the FOA may include the following Topic Areas:

Topic Area	Anticipated Number of Awards	Anticipated Award Period of Performance	Anticipated Range of Federal Funding Per Award	Approximate Total Federal Funding for All Awards
Topic Area 1: Floating Offshore Wind Platform Research and Development	Subtopic 1a: 4–6 Subtopic 1b: 1–3	3–5 Years 1–3 Years	Subtopic 1a: \$2M–4M Subtopic 1b: \$0.5M–\$1.5M	\$20M
Topic Area 2: Alternative Fixed-Bottom Offshore Wind Foundation Types and Installation Techniques	2–3	3–5 Years	\$2.5M–\$5M	\$7.5M
Topic Area 3: Technology Advancement for Bird and Bat Research Offshore	2–4	3–5 Years	\$1M –\$3M	\$8M
Topic Area 4: Development of a Manufacturing and Supply Chain Offshore Wind Consortium Based in the Great Lakes Region	1–2	2–5 Years	\$1.5M–\$5M	\$5M
Topic Area 5: Floating Offshore Wind Center of Excellence	1	2–5 Years	\$1.5M–\$3.5M	\$3.5M
Topic Area 6: Protecting the Future Offshore Wind Fleet against Lightning	2–3	1–3 years	\$1M–\$2M	\$4M

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Topic Area 1: Floating Offshore Wind Platform Research and Development

The intent of this Topic Area is to facilitate innovation that will advance manufacturing, deployment, and operation of floating offshore wind systems in the United States. Projects awarded under the subtopics may focus on near-term needs for the first generation of systems to be installed, and/or on longer term needs to lower costs and increase efficiency in validation, fabrication, installation, and operation. It is anticipated that this Topic Area may include the following subtopic areas:

Subtopic 1a: Refinement and Innovation in Floating Platform Design, Manufacturing, and Deployment

This Subtopic may include research and development to improve manufacturing and deployment of floating offshore wind systems. This could include material, fabrication techniques, infrastructure requirements, and deployment methods. Manufacturing process optimization may include verification through modeling simulation and/or scaled testing. Testing of floating offshore wind components or full systems may be included at scale or at full-size. Research may also include development of infrastructure needed in the manufacturing, assembly, and deployment of a range of floating offshore platform designs.

Subtopic 1b: Next-Generation Integrated Turbine/Platform Research

This Subtopic may include research and development studies that address key operating dynamics and integrated design opportunities that incorporate the turbine, tower, platform, and mooring system. The objective is to aid the long-term transition to innovative integrated turbine/platform concepts and subsystems that simplify overall configurations to reduce cost, increase operating efficiency, and expand energy production capacity. Research topics may include integrated design modeling tools and methods, investigation of integrated subsystems, coupled dynamic and fatigue analysis, optimized controls, scaled testing, and use of lightweight materials.

Topic Area 2: Innovation for Fixed-Bottom Offshore Wind Foundation Types and Supporting Infrastructure

This Topic Area aims to address supply chain and deployment constraints through increased industry adoption of novel designs and methodologies to make infrastructure (factories, ports, vessels) applicable to a broader range of turbine sizes. It may also include technologies that enable increased manufacturing rates and throughput for non-monopile foundation types and develop adaptations for broader deployment of fixed-bottom offshore wind, addressing current areas of concern or limitation. Areas of limitation to be overcome may include soft sediments, sea ice, port and vessel constraints, and limited manufacturing throughput for alternate foundation types.

Topic Area 3: Technology Advancement for Bird and Bat Research Offshore

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This Topic Area aims to advance technologies to monitor bird and bat presence and behavior to understand the risk to flying species that may be affected by offshore wind structures and operations. Technologies could include stand-alone tools or combined systems of technologies working together to monitor at multiple scales.

Topic Area 4: Development of a Manufacturing and Supply Chain Offshore Wind Consortium Based in the Great Lakes Region

This Topic Area aims to leverage the strengths of the existing industrial and manufacturing base in the Great Lakes region to engage with the national and global offshore wind market. In addition, this Topic Area seeks to support an entity or entities that work to address the immediate needs of the domestic offshore wind pipeline through manufacturing, technology innovation, and workforce development.

Topic Area 5: Floating Offshore Wind Center of Excellence

This Topic Area aims to support a university-led Center of Excellence intended to accelerate and maximize the effectiveness, reliability, and sustainability of floating U.S. offshore wind deployment and operation through partnership with industry participants, including wind project developers and technology manufacturers; other institutions of higher education; other research institutions, such as national laboratories; non-governmental organizations; tribes; and state and local governments. It will also seek to promote collaboration across and between coastal regions.

Topic Area 6: Protecting the Future Offshore Wind Fleet against Lightning

This Topic Area aims to develop a robust understanding of the interaction between wind turbines and lightning in an offshore environment to serve as a foundation for developing solutions that lower potentially costly operations and maintenance impacts. Field and lab experiments and observations will produce data which may be used to develop various tools and models that predict risks and inform technical solution development. This Topic Area is applicable to floating and fixed foundation systems. Development of new lightning protection hardware is not included in the scope.

For all topic areas, EERE envisions awarding multiple financial assistance awards in the form of cooperative agreements. The estimated period of performance for each award will vary based upon Topic Area.

This Notice is issued so that interested parties are aware of the EERE's intention to issue this FOA in the near term. All of the information contained in this Notice is subject to change. EERE will not respond to questions concerning this Notice. Once the FOA has been released, EERE will provide an avenue for potential Applicants to submit questions.

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EERE plans to issue the FOA on or about Late Spring/Early Summer via the EERE eXCHANGE website <https://eere-eXCHANGE.energy.gov/>. If Applicants wish to receive official notifications and information from EERE regarding this FOA, they should register in EERE eXCHANGE. When the FOA is released, applications will be accepted only through EERE eXCHANGE.

DOE is also compiling a Teaming Partner List to facilitate the formation of project teams for this anticipated FOA. The Teaming Partner List allows organizations that may wish to participate on a project to express their interest to other applicants and to explore potential partnerships.

The Teaming Partner List will be available on EERE eXCHANGE and will be regularly updated to reflect new teaming partners who provide their organization's information.

SUBMISSION INSTRUCTIONS: View the Teaming Partner List by visiting the EERE eXCHANGE homepage and clicking on "Teaming Partners" within the left-hand navigation pane. This page allows users to view published Teaming Partner Lists. To join the Teaming Partner List, submit a request within eXCHANGE. Select the appropriate Teaming Partner List from the drop-down menu and fill in the following information: Investigator Name, Organization Name, Organization Type, Topic Area, Background and Capabilities, Website, Contact Address, Contact Email, and Contact Phone.

DISCLAIMER: By submitting a request to be included on the Teaming Partner List, the requesting organization consents to the publication of the above-referenced information. By facilitating the Teaming Partner List, DOE is not endorsing, sponsoring, or otherwise evaluating the qualifications of the individuals and organizations that are identifying themselves for placement on this Teaming Partner List. DOE will not pay for the provision of any information, nor will it compensate any applicants or requesting organizations for the development of such information.

In anticipation of the FOA being released, Applicants are advised to complete the following steps, which are **required** for application submission:

- Register and create an account in EERE eXCHANGE at <https://eere-eXCHANGE.energy.gov/>. This account will allow the user to apply to any open EERE FOAs that are currently in EERE eXCHANGE.

To access EERE eXCHANGE, potential applicants will be required to have a [Login.gov](https://login.gov/) account. As part of the eXCHANGE registration process, new users are directed to create an account in [Login.gov](https://login.gov/). Please note that the email address associated with Login.gov must match the email address associated with the eXCHANGE account. For more information, refer to the Exchange Multi-Factor Authentication (MFA) Quick Guide in the [Manuals section](#) of eXCHANGE.

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It is recommended that each organization or business unit, whether acting as a team or a single entity, use only one account as the contact point for each submission. Questions related to the registration process and use of the EERE Exchange website should be submitted to: EERE-eXCHANGESupport@hq.doe.gov

- Register with the System for Award Management (SAM) at <https://www.sam.gov>. Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in SAM registration. Please update your SAM registration annually. Upon registration, SAM will automatically assign a Unique Entity ID (UEI).

NOTE: Due to the high demand of UEI requests and SAM registrations, entity legal business name and address validations are taking longer than expected to process. Entities should start the UEI and SAM registration process as soon as possible. If entities have technical difficulties with the UEI validation or SAM registration process they should utilize the HELP feature on SAM.gov. SAM.gov will work entity service tickets in the order in which they are received and asks that entities not create multiple service tickets for the same request or technical issue. Additional entity validation resources can be found here: [GSAFSD Tier 0 Knowledge Base - Validating your Entity](#).

- Register in FedConnect at <https://www.fedconnect.net/>. To create an organization account, your organization's SAM MPIN is required. For more information about the SAM MPIN or other registration requirements, review the FedConnect Ready, Set, Go! Guide at https://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect_Ready_Set_Go.pdf
- Register in Grants.gov to receive automatic updates when Amendments to a FOA are posted. However, please note that applications will not be accepted through Grants.gov. <http://www.grants.gov/>. All applications must be submitted through EERE eXCHANGE.

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