

Notice of Intent No. DE-FOA-0003140

Notice of Intent to Issue Funding Opportunity Announcement No. DE-FOA-0003121

The U.S. Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Wind Energy Technologies Office (WETO), the Water Power Technologies Office (WPTO), and the Department of Interior’s (DOI) Bureau of Ocean Energy Management (BOEM) and Bureau of Safety and Environmental Enforcement (BSEE), a Funding Opportunity Announcement (FOA) entitled “Installation Noise Reduction and Reliable Moorings for Offshore Wind and Marine Energy.”

This FOA will support responsible development of offshore renewable energy by funding research to reduce risk and improve environmental compatibility of U.S. offshore wind energy and marine energy deployments. This FOA will target technologies with applicability to offshore wind and marine energy deployments in all regions of U.S. waters including the Atlantic Ocean, Pacific Ocean, Great Lakes, and the Gulf of Mexico. The goals of this FOA are to:

- Improve the reliability of moorings for floating offshore wind energy and marine energy systems; and
- Reduce the noise associated with foundation installation of fixed-bottom offshore wind energy structures.

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

Topic Area Number	Topic Area Title	Anticipated Number of Awards	Anticipated Award Size for Any One Award (Fed Share)	Anticipated Approximate Total Federal Funding Available for All Awards
1	Reliable Moorings for Floating Offshore Wind and Marine Energy Systems	6-8	\$500k - \$1M	\$6.4M
2	Noise Reduction for Fixed-Bottom Offshore Wind Installation	3-8	\$300K - 5M	\$10M

Topic Area 1: Reliable Moorings for Floating Offshore Wind and Marine Energy Systems

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WETO, WPTO, BSEE, and BOEM seek to improve the reliability of moorings lines for U.S. deployments of floating offshore wind and marine energy systems. This Topic Area will address specific near-term needs informing mooring system designs for floating offshore wind and marine energy.

It is anticipated that this Topic Area may include three subtopic areas.

- **Subtopic 1a: Test Mooring Ropes for Fatigue**
Physically test and characterize synthetic fiber ropes likely to be used in floating offshore wind and/or marine energy systems, including fatigue and long-term performance.
- **Subtopic 1b: Robust Sensor Systems for Mooring Condition Monitoring**
Advance a condition monitoring instrumentation package for mooring lines that will lower operations and maintenance costs for floating offshore wind and/or marine energy converters.
- **Subtopic 1c: Validate Shared Anchor / Shared Mooring Array Configurations**
Physically test and validate shared anchor and/or shared mooring configurations of floating offshore wind energy arrays or marine energy arrays.

Applications may address one or more subtopics and may focus on offshore wind energy systems, marine energy converters, or both.

Topic Area 2: Reduce Noise of Fixed-Bottom Offshore Wind Energy Installation

As offshore wind energy deployment expands, both DOE and DOI recognize the value of additional technologies and strategies to reduce the noise associated with impact pile driving of fixed-bottom turbine foundations.

Noise impacts can be mitigated by reducing the amount of noise generated and/or reducing the amount of noise propagated. As this is a rapidly evolving area of research and development, it is important to disseminate up-to-date information on the technologies and techniques available and provide best practice guidelines where possible.

It is anticipated that this Topic Area may include three subtopics.

- **Subtopic 2a: Alternative, Quieter Foundation Types or Installation Methods**
There are two potential focus areas associated with this subtopic. Applicants may propose to do both or either of the focus areas. The first is to complete a comprehensive feasibility assessment of one type of alternative foundation (e.g., suction buckets, gravity bases) or installation method (e.g., vibratory) that makes the installation of foundations significantly quieter than using impact piling.

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The second focus area is to complete comprehensive noise measurements around the site of an alternative foundation or installation method deployment.

- **Subtopic 2b: Noise Abatement Technologies**

The aim of this subtopic is to demonstrate the effectiveness of noise abatement technologies covering the full range of relevant sound frequencies, including below 500 Hz. This could include combining existing technologies to increase the overall noise reduction capability or focus on one method that encompasses all relevant frequencies. The noise abatement techniques would need to demonstrate efficacy in a range of environments, combining results from activities such as modeling, laboratory tests, and a field demonstration. Support from a relevant entity to host the field demonstration of the noise abatement technology will be required.

- **Subtopic 2c: Data Sharing and Information Synthesis**

This subtopic has two components, both of which should be included. The first is to produce a synthesis of existing information relating to the foundation types available, the installation techniques, and the noise abatement technologies, including where and under what conditions these can be deployed. This information will be synthesized into easily understandable digests that are available to the public.

The second component is to use this information to lead a series of technical expert workshops and then publish a set of best practice documents to ensure the best technologies are used for the appropriate environments and conditions in U.S. waters. Within both components, applicants are encouraged to avoid duplication of any similar effort.

Applications may address one or more subtopics.

EERE envisions awarding multiple financial assistance awards in the form of cooperative agreements under this FOA. The estimated period of performance for each award will be approximately one (1) to three (3) years for Topic Area 1 and one (1) to five (5) years for Topic Area 2.

The National Oil Spill Response and Renewable Energy Test Facility (Ohmsett) is available for projects in both Topic Areas and is planned to be a dedicated testing venue based upon awardee interest. For more information, see <https://ohmsett.bsee.gov/>.

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.

EERE plans to issue the FOA in or about October 2023 via the EERE eXCHANGE website <https://eere-eXCHANGE.energy.gov/>. If Applicants wish to receive official notifications and

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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.

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.

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

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- 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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