

Notice of Intent No. DE-FOA-0003129**Notice of Intent to Issue
Funding Opportunity Announcement No. DE-FOA-0003097**

The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Water Power Technologies Office (WPTO) and the Wind Energy Technologies Office (WETO), a Funding Opportunity Announcement (FOA) entitled Marine Energy University Foundational R&D - DE-FOA-0003097.

This FOA supports EERE's goals of increasing energy affordability, domestic economic prosperity, and energy security while enhancing the reliability and resiliency of the U.S. power grid. To achieve these goals, WPTO and WETO will fund research related to marine energy and offshore wind under this FOA. Eligibility for all topic areas will be restricted to domestic institutions of higher education, including minority serving institutions, as prime recipients.

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

Topic Area 1: Open-Source Marine Energy Converter (MEC) Test Platforms to Produce Open-Source Data: This topic area will include projects using open-source MEC test platforms to produce open-source data, aligned with cost reduction pathways. It is anticipated this topic area will have three subtopics: 1a) Cost Reduction Pathway Analysis, 1b) Leveraging Existing Open-Source MEC Test Platforms to Produce Open-Source Data, and 1c) Design and Fabrication of Modular R&D Test Platform(s) to Produce Open-Source Data.

Topic Area 2: Sustainable & Scalable Offshore Wind, Marine Energy, and Aquaculture: Through this topic area, WETO and WPTO will seek to advance potential synergies between offshore wind and/or marine energy and aquaculture development and explore promising pathways to maximize benefits. Aquaculture refers to, but is not limited to, coastal and offshore shellfish, finfish, macroalgae, and multi-trophic farms or hatcheries of all sizes which can include wild harvest from offshore renewable energy projects. Activities can include monitoring, environmental surveying of potential locations, and other activities related to farm or cultivation siting. Land-based aquaculture facilities located near the shoreline such as hatcheries, recirculating farms, processing facilities, and others are also applicable.

It is anticipated this topic area will have two subtopics:

- Subtopic 2a, "Feasibility of Floating Offshore Wind Energy and Aquaculture Co-Location", will seek proposals that assess the feasibility of and identify potential synergies and challenges associated with co-location of aquaculture production and

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commercial scale floating offshore wind. Proposals should address a diversity of factors for feasibility and have a focus on regions of floating offshore wind development.

- Subtopic 2b, “Integration and Co-location of Marine Energy and Aquaculture,” will seek proposals that advance potential synergies between marine renewable energy and aquaculture. Areas of interest for proposals include developing marine energy technologies for powering aquaculture operations, filling aquaculture energy demand data gaps, identifying and evaluating needs and challenges for marine energy and aquaculture co-location, assessing impacts of co-location, and analyzing economic feasibility. Proposals that incorporate marine energy with other renewable energy resources in a hybrid approach will also be considered.

Topic Area 3: Undergraduate Senior Design and/or Research Project Development: This topic area is intended to support undergraduate senior design and/or research projects in marine energy. Projects can be carried out at the student’s home institution, in partnership with another institution (for example, if another institution offers complementary coursework on the topic of interest to a student), and/or institutions with communities, nonprofit organizations, and/or technology development companies that are working in marine energy. The student’s home or partnering institution must offer opportunities for students to cultivate skills and experiences that will help successfully complete their senior projects. Senior projects can come from a range of disciplines, such as engineering, environmental science, or the social sciences, including but not limited to the following: community adoption of marine energy, social acceptance of marine energy, and research and design of emerging marine energy technologies.

Topic Area 4: Open Topic: This topic area will allow applicants to propose activities that address the needs of the marine energy industry not covered by other topic areas. WPTO will consider applications in the areas of wave energy, tidal energy, or ocean thermal energy. Proposed research should advance the state of the industry and address a challenge or opportunity in the foundational R&D area. Potential areas of interest include, but are not limited to, the following: supply chain analyses; materials and advanced manufacturing¹; Powering the Blue Economy (PBE); marine energy integration for blue economy applications (non-aquaculture); marine energy-powered product generation such as desalination, hydrogen, and ammonia, etc.; marine energy-powered marine carbon dioxide removal, including marine energy-powered monitoring, reporting, and verification; microscale marine energy converters; wave remote sensing, including forecasting and wave-to-wave tuning; and high-bandwidth high-efficiency power electronics (specific to wave energy converters at both utility and PBE scales).

¹ Please refer to the published Marine Energy Materials and Manufacturing report published by WPTO: <https://www.energy.gov/sites/default/files/2022-05/eere-materials-and-manufacturing-for-marine-energy-summary-report.pdf>

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EERE envisions awarding multiple financial assistance awards in the form of cooperative agreements. The estimated period of performance for each award will be between one and four years.

This Notice is issued so that interested parties are aware of EERE's intention to issue this FOA in the near term. All 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 on or about September or October 2023 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.

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).

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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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