

Notice of Intent No. DE-FOA-0001527

Notice of Intent to Issue Funding Opportunity Announcement No. DE-FOA-0001418

The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Wind and Water Power Technologies Office, a Funding Opportunity Announcement (FOA) entitled “Marine and Hydrokinetic Energy Conversion and Environmental Monitoring Technology Advancement”.

This FOA is soliciting applications that propose projects supporting the marine and hydrokinetic (MHK) industry in two Topic Areas. Topic Area 1 will help advance wave and current energy (ocean/tidal/river) technologies by supporting projects that integrate advanced MHK components into system designs and then demonstrate the improved systems in full-scale open-water tests. Topic Area 2 will support the innovation, testing and validation of instrumentation for monitoring potential environmental impacts of MHK devices.

It is anticipated that the FOA will include the following Topic Areas of interest:

Topic Area 1: Advanced Technology Integration and Demonstration

The overall objective of Topic Area 1 is to put Marine and Hydrokinetic (MHK) systems on a pathway to produce energy at a cost that is competitive with local hurdle rates of 15 ¢/kWh by 2030. This will be accomplished by supporting wave and current energy (i.e. tidal, ocean, and river) projects that integrate advanced MHK hardware and software technologies into existing system designs. At the completion of successful projects, awardees will have integrated the advanced technology into a full scale system and tested the system in open-water for one-year. Measurements and analysis will be performed during and after the deployment to demonstrate the performance of the MHK system and advanced component, thus reducing the uncertainty of Levelized Cost of Energy (LCOE) projections and demonstrating the potential of MHK technologies.

Topic Area 2: Innovation, Testing, and Validation of MHK Environmental Monitoring Instrumentation Performance

This Topic Area will support the innovation, testing, and validation of environmental monitoring technologies and the associated data-processing software in field environments. This Topic Area is designed to produce technologies at an advanced-technology readiness level (TRL), fit-for-purpose, cost-effective tools ready to be used for environmental monitoring by the MHK

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community. These tools should be designed to measure the most common environmental regulatory concerns associated with MHK deployments. This Topic Area has four areas of preferred focus. The first three support the development of a single instrument or sensor designed to measure 1) the acoustic outputs of MHK devices; 2) electromagnetic fields created by MHK devices, subsea cables and associated equipment; or 3) the interactions between MHK devices and marine animals. The fourth focus area will provide a higher level of funding to support integrated systems of multiple sensors to measure a single or multiple environmental concerns. Through iterative testing and innovative improvements, awardees must demonstrate enhanced technical performance of hardware and software, and overall cost reductions for data collection and processing when compared to instrument baseline performance and existing current state of the art monitoring methodologies. Over the course of three years, this FOA will support testing, improvement, and validation of environmental monitoring technologies in conditions representative of MHK environments. Initial testing will occur at a semi-sheltered open-water setting, and then in fully-energetic conditions, preferably at a location where an MHK device is deployed.

EERE envisions a total of \$22 million will be awarded through multiple financial assistance awards in the form of cooperative agreements. For Topic Area 1, EERE anticipates funding up to three awards at \$5.35 million each, for a total of \$16.05 million. Of the three Topic Area 1 awards, EERE anticipates up to two awards will support wave energy technologies and up to one award will support current energy (i.e. tidal, river, and ocean) technologies. Topic Area 1 awards will have a period of performance of up to 54 months, broken into three budget periods. The Topic Area 1 required minimum non-federal cost share is anticipated to be 20% for budget period 1 and 50% for budget periods 2 and 3. For Topic Area 2, EERE anticipates funding up to 7 awards ranging from \$750,000 for focus areas 1-3 to \$1,100,000 for focus area 4, for a total of \$5.95 million. The estimated period of performance for Topic Area 2 will be 36 months, with a required 20% non-federal cost share.

This Notice is issued so that interested parties are aware of 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 on or about March 1, 2016 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:

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

- Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number (including the plus 4 extension, if applicable) at <http://fedgov.dnb.com/webform>
- 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.
- 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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