

Notice of Intent No. DE-FOA-0002541

Notice of Intent to Issue Funding Opportunity Announcement No. DE-FOA-0002417

The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Water Power Technologies Office (WPTO) through its [HydroWIRES Initiative](#), a Funding Opportunity Announcement (FOA) entitled “Technology Innovation to Increase Hydropower Flexibility.”

The FOA seeks next-generation technologies from manufacturers, equipment vendors, and research organizations to improve the flexible capabilities of the U.S. hydropower fleet. The development of technical solutions to improve unit flexibility – either by improving performance across various dimensions of unit level flexible generation or by reducing potential negative impacts of flexible operations, such as increased maintenance requirements – can increase the value of hydropower in an evolving power system by improving its ability to integrate additional wind and solar generation.

Technology innovations of interest include those that can actively expand the operational flexibility of the hydropower unit to provide grid services, such as expanded operating range, faster ramping and start-stops, and improved frequency and voltage control. Also of interest are capabilities to reduce the negative impacts, such as accelerated machine wear-and-tear, associated with operating the unit more flexibly. The FOA will solicit technology innovations that can advance to the prototype testing or demonstration stage, preferably including partnership with a hydropower owner or operator. WPTO envisions awarding multiple financial assistance awards in the form of cooperative agreements, which may include performance demonstrations. The estimated period of performance for each award will be up to three years. EERE expects to make a total of approximately \$8,500,000 of federal funding available for new awards under this FOA, subject to the availability of appropriated funds.

Innovations developed under this FOA will support WPTO’s [HydroWIRES Initiative](#), which seeks to understand, enable, and improve hydropower and pumped storage hydropower’s (PSH) contributions to reliability, resilience, and integration in the rapidly evolving US electricity system. The central hypothesis of HydroWIRES is that, as the electricity system undergoes rapid changes, the US hydropower fleet is well-positioned to take on new roles by offering additional value streams, enhanced flexibility, new operational strategies, and innovative technology solutions. HydroWIRES supports these goals through development of industry- and National Lab-led modeling, analysis, tools, and targeted technology R&D for the benefit of the broader community.

This is a Notice of Intent (NOI) only. EERE may issue a FOA as described herein, may issue a FOA that is significantly different than the FOA described herein, or EERE may not issue a FOA at all.

WPTO encourages collaboration and diverse partnerships to maximize the impact of work performed under this FOA. This FOA will encourage the participation of underserved communities and underrepresented groups. Applicants are highly encouraged to include individuals from groups historically underrepresented in STEM on their project teams. WPTO will compile an optional Teaming Partner List that can be used by potential applicants or entities interested in partnering with other applicants for this potential FOA. Additional instructions regarding the Teaming Partner List can be found at the bottom of the NOI.

This Notice is issued so that interested parties are aware of the EERE's intention to issue this FOA in the near-term. All 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 2021 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 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.

Submit questions related to the registration process and use of the EERE Exchange website 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

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- Register in Grants.gov (<http://www.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. All applications must be submitted through EERE Exchange (<https://eere-exchange.energy.gov/>).

Applicants may also choose to complete the following **optional** steps:

- *Optional:* Any organization that would like to be included in the Teaming Partner List should submit the following information to HydropowerFOA@ee.doe.gov with the subject line "Teaming Partner Information:" NOI DE-FOA-0002541, Organization Name, Contact Name, Contact Email, Contact Phone, Organization Type, Area of Technical Expertise, FOA 2417, and Brief Description of Capabilities. By submitting the above Teaming Partner Information, you consent to the publication of the above-referenced information as part of the Teaming Partner List. The Teaming Partner List will be made available on EERE Exchange at <https://eere-exchange.energy.gov> under NOI DE-FOA-0002541. The Teaming Partner List will be updated periodically until the close of the Full Application period of the potential FOA to reflect new Teaming Partners who have provided their information. By facilitating this Teaming Partner List, EERE does not endorse or otherwise evaluate the qualifications of the entities that self-identify for placement on the Teaming Partner List. EERE will not pay for the provision of any information, nor will it compensate any respondents for the development of such information.

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