

Notice of Intent No. DE-FOA-0003372

Notice of Intent to Issue

Funding Opportunity Announcement No. DE-FOA-0003331

Funding Opportunity Announcement No. DE-FOA-0003146

Funding Opportunity Announcement No. DE-FOA-0003334

Our nation's transition to a decarbonized, clean energy future requires concurrent technology and business model transformations across our electricity system. The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue three funding opportunity announcements (FOAs) totaling more than \$100 million to conduct research, development, and field validations that seek to understand new and more dynamic grid loads, to integrate them with the electric grid and to modernize the grid edge while ensuring this transition occurs in an equitable way.

The grid edge is where the utility distribution system ends and customer premises starts. *It is where buildings, industry, transportation, distributed solar photovoltaics, energy storage, and other distributed energy resources (DER) come together with the grid, from the feeder to the plug.* The FOAs will be issued by the Solar Energy Technologies Office (SETO), the Building Technologies Office (BTO), and the Vehicle Technologies Office (VTO), in collaboration with the Geothermal Technologies Office, the Industrial Efficiency and Decarbonization Office, and the Office of Electricity to equitably address grid edge challenges.

These FOAs support field validations to better understand the impact of energy efficiency and electrification of transportation, buildings, and industry; the benefits of integrating distributed solar and energy storage technologies into distribution grid planning and operations; and scalable approaches to manage growing load through integrated technology and market solutions that result in efficiency and optimization across the system. The field demonstrations will help develop and de-risk systemic and scalable solutions (e.g., hardware and software modeling tools) for common problems. These solutions can then be replicated by jurisdictions and inform technical assistance and stakeholder engagement that is inclusive. These efforts will improve customer affordability and in alignment with the Affordable Home Energy Shot, address barriers to clean energy technologies in affordable housing communities that have lower grid capacity.

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.

It is anticipated that the FOAs under this Notice of Intent (NOI) will be released individually and may include the following areas of interest:

SETO Funding Opportunity Announcement No. DE-FOA-0003331 (STRIVES) to develop and demonstrate technology and market tools for better integration of distributed energy resources including solar, wind, and energy storage.

BTO Funding Opportunity Announcement No. DE-FOA-0003136 (Connected Communities) to equitably advance grid-edge solutions for resilient, decarbonized communities including an emphasis on affordable housing communities that have limited availability of distribution capacity for transportation and building electrification.

VTO Funding Opportunity Announcement No. DE-FOA-0003344 (SuperTruck Charge) will demonstrate concepts for managed charging at truck depots/hubs and truck stops that alleviate grid capacity challenges.

These coordinated FOAs will help the electricity system overcome five challenges that a status quo, incremental approach cannot solve:

- Increased demand from electrification of transportation, buildings, and industry;
- An evolving clean electricity supply mix that is more variable, distributed, and increasingly digitally orchestrated;
- Improved customer resilience through better built environments; and
- The need for protection from physical and cyber threats to the grid.

The proposed research and demonstration will help:

- Provide data and analysis on energy use, grid operations, and integration of advanced grid technologies;
- Engage broad stakeholder groups including system planners and operators, industry, Original Equipment Manufacturers, policymakers, regulators, communities, end-use customers, and technology developers;
- Provide practical learning experiences through demonstrations;
- Develop new frameworks to plan, operate, and regulate the distribution system; and
- Reduce technological and institutional uncertainty and enhance confidence in solutions for all communities.

EERE envisions awarding multiple financial assistance awards in the form of cooperative agreements. The estimated period of performance for each award will be approximately 24 – 60 months.

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This Notice is issued so that interested parties are aware of the EERE's intention to issue these FOAs 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 FOAs have been released, EERE will provide an avenue for potential Applicants to submit questions.

EERE plans to issue the FOAs in Fiscal Year 2024 between April and September 2024 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).

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

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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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