

Notice of Intent No. DE-FOA-0002478

Notice of Intent to Issue

Funding Opportunity Announcement No. DE-FOA-0002475

The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Vehicle Technologies Office (VTO), a Funding Opportunity Announcement (FOA) entitled "Low Greenhouse Gas (GHG) Vehicle Technologies Research, Development, Demonstration and Deployment".

Building a clean energy economy and addressing the climate crisis is a top priority of the Biden Administration. The Administration has laid out a bold plan to lead the world in building a clean energy economy, address climate change, and achieve net-zero emissions no later than 2050 to the benefit of all Americans. The Department of Energy is committed to pushing the frontiers of science and engineering, catalyzing clean energy jobs through research, development, demonstration, and deployment (RDD&D), and ensuring environmental justice and inclusion of disadvantaged communities.

VTO funds a broad portfolio of RDD&D projects to develop affordable, efficient and clean transportation options to tackle the climate crisis and accelerate the development and widespread use of a variety of innovative transportation technologies. If issued, the FOA may seek innovative solutions for on-road and off-road vehicles to support the reduction of emissions and increased efficiencies in the transportation sector. Additionally, the FOA may seek the following: electric vehicle community partner demonstration projects; electric vehicle workplace charging projects; RDD&D of technologies to reduce the cost of EV chargers, advanced engines and fuels that reduce emissions, including natural gas, propane, and dimethyl ether; and, innovative solutions for medium/heavy duty on- and off-road vehicles including electrification and high-power charging.

It is anticipated that the FOA may include the following Areas of Interest:

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.

1.) Electric Vehicle Charging Community Partner Projects

The objective of this potential area of interest is to accelerate the adoption of commercially-available plug-in electric vehicles (PEVs) and supporting infrastructure through community-based public-private partnerships that demonstrate PEV technologies (for cars, buses, school buses, trucks) and infrastructure in various innovative applications and share resulting data, lessons learned and best practices with a broader audience. Projects that demonstrate the ability to accelerate clean energy jobs or provide new electric transportation solutions to under-served communities may also be of interest.

2.) Electric Vehicle Workplace Charging

The objective of this potential area of interest is to encourage strong partnerships and new program(s) to increase plug-in electric vehicles (PEVs) workplace charging regionally or nationally which will help increase the feasibility of PEV ownership for consumers in underserved communities (e.g., demographics that currently have minimal access to home charging).

3.) Reducing Cost of DC Fast Charging Equipment

The objective of this potential area of interest is to research, develop, and demonstrate innovative technologies and designs to significantly reduce the cost of electric vehicle supply equipment for DC Fast Charging that will be needed in large number to support high volumes of EVs.

4a.) Research to Transform the Efficiency of Off-Road Vehicles

The objective of this potential area of interest is to research and develop technology concepts that are capable of significantly decreasing energy use, greenhouse gas (GHG) and criteria emissions, and total cost of ownership across the entire off-road vehicle sector, including clean, high-efficiency engines and fluid power systems.

4b.) Electrified Construction Vehicle Research, Development, and Validation

The objective of this potential area of interest is to research, develop, and validate novel powertrain electrification technologies to improve the energy efficiency of off-road construction equipment.

5.) Natural Gas Engine Enabling Technologies

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The objective of this potential area of interest is to research, develop, and validate natural gas engine component technologies that improve the efficiency of engines cost-effectively without increasing the cost of emission control systems for medium- and heavy-duty trucks.

6.) Dimethyl Ether and Propane Engine Enabling Technologies

The objective of this potential area of interest is to research, develop, and validate engine component technologies that improve the efficiency of direct injection engines using dimethyl ether, propane, or a blend of the two, cost-effectively and without increasing the cost of emission control systems for light- and medium-duty vehicles.

7.) Advanced Opposed Piston 2-Stroke (OP2S) Engine

The objective of this potential area of interest is to research, develop, and validate an advanced opposed piston 2-stroke technology engine for light-, medium- and heavy-duty applications with or without hybridization that significantly improves energy efficiency and reduces emissions over conventional engines.

8.) Natural Gas Vehicle Technology Proof of Concept

The objective of this potential area of interest is to spur broad adoption of on-road natural gas vehicles (medium or heavy-duty) in a specific fleet, community, or region with little or no experience with natural gas vehicles.

This FOA will restrict foreign entities from applying as prime recipients unless they have a U.S. incorporated subsidiary or affiliate with a physical location for business operations in the United States. No waivers will be offered for this restriction.

EERE envisions awarding multiple financial assistance awards in the form of DOE Cooperative Agreements. The estimated period of performance for each award will be approximately 12 - 48 Month(s).

This Notice of Intent (NOI) No. DE-FOA-0002478 is issued so that interested parties are aware of the EERE's intention to issue FOA No. DE-FOA-0002475 in the near term. All of the information contained in this NOI is subject to change. EERE will not respond to questions concerning this NOI or the intended FOA. If the FOA is released, EERE will provide an avenue for potential Applicants to submit questions.

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EERE plans to issue the FOA in March 2021 via the EERE Exchange website <https://eere-exchange.energy.gov/>. If Applicants wish to receive official notifications and information from EERE regarding the potential FOA, they should register in EERE Exchange. If 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.
- 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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