

Notice of Intent No. DE-FOA-0001807

Notice of Intent to Issue Funding Opportunity Announcement No. DE-FOA-0001808

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 “FY 2017 Vehicle Technologies Office Batteries and Electrification to Enable Extreme Fast Charging Funding Opportunity Announcement”.

Vehicles move our national economy. Annually, vehicles transport 11 billion tons of freight - more than \$32 billion worth of goods each day – and move people more than 3 trillion vehicle-miles. Growing our economy requires transportation, and transportation requires energy. The transportation sector currently accounts for 70% of U.S. petroleum consumption. Twenty five percent of U.S. petroleum consumption is imported. The U.S. sends more than 10 billion dollars per month overseas for crude oil, and the average U.S. household spends nearly one-fifth of its total family expenditures on transportation, making it the second-most expensive spending category after housing. Oil price volatility also affects our national economy and household budgets, causing difficult fluctuations in annual household budgets and business operating expenses.

To support future U.S. economic growth and help consumers and businesses, the Vehicle Technologies Office funds early-stage, high-risk research to generate knowledge upon which industry can develop and deploy innovative transportation energy technologies that improve efficiency, lower cost for families and business, and increase use of secure, domestic energy sources.

This FOA seeks projects to encourage the development of plug-in electric vehicle systems that can demonstrate the ability to recharge rapidly at high power levels. Developing these systems should allow plug-in electric vehicles to be charged much faster than current vehicle charging, enabling the greater use of electricity for transportation (which is 98% domestic energy generation from diverse sources) and encouraging the widespread use of plug-in vehicles.

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

1.) Development of Extreme Fast Charging (XFC) Systems for Electric Vehicles

The objective of this area of interest is to develop and verify light, medium, or heavy duty vehicle electronics and electric drive systems that can enable XFC technology capable of recharging a battery at least twice as fast as current fast charging technologies. Project teams should include partnerships that include one or more of the following: state governments, local

governments, metropolitan transportation authorities, air pollution control districts, and private or nonprofit entities.

2.) Batteries for Extreme Fast Charging (XFC)

The objective of this area of interest is to research and develop fast charge battery cells capable of achieving at least 500 cycles (with less than 20% fade in specific energy) consisting of a 10-minute fast charge protocol, while achieving or improving state-of-the-art cell specific energy and cost.

Example technology areas include, *but are not limited to*:

- Novel electrode and cell architectures
- Novel electrolytes
- Active material modifications
- Improved additives

EERE envisions awarding multiple financial assistance awards in the form of cooperative agreements.

This notice is issued so that interested parties are aware of the EERE's intention to issue a FOA in the near term. All of the information contained in this notice is subject to change. It should be noted that the NOI (DE-FOA-0001807) number and FOA number (DE-FOA-0001808) are different, as outlined in the heading on the cover page of this notice. EERE will neither respond to questions nor accept applications under 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 in October 2017 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.

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>

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.

- 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.