

## Notice of Intent No. DE-FOA-0001623

### Notice of Intent to Issue Funding Opportunity Announcement No. DE-FOA-0001461

The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the Bioenergy Technology Office (BETO) and Vehicle Technologies Office (VTO), a Funding Opportunity Announcement (FOA) entitled “Co-Optimization of Fuels and Engines.” **The FOA will be restricted to U.S. Institutions of Higher Education (as defined in 20 U.S.C. § 1001, and in accordance with 2 C.F.R § 200.55), and non-profit research institutions that operate as a division under the U.S. Institutions of Higher Education.**

This FOA will support the [Co-Optimization of Fuels and Engines \(Co-Optima\) initiative](#), a collaborative initiative being pursued by BETO and VTO to accelerate the introduction of affordable, scalable, and sustainable high-performance fuels for use in high-efficiency, low-emission engines. This first-of-its-kind effort brings together multiple DOE offices, national laboratories, and industry stakeholders to simultaneously conduct tandem fuel and engine R&D and deployment assessment in order to maximize energy savings and on-road vehicle performance, while dramatically reducing transportation-related petroleum consumption and greenhouse gas (GHG) emissions.

In 2016, BETO and VTO jointly funded a consortium of nine DOE national laboratories to begin an initial three-year project in support of the Co-Optima initiative. The National Laboratory Project includes two research thrusts:

- Thrust I—Improve near-term conventional spark ignition engine efficiency
- Thrust II—Enable full operability advance compression ignition engines

The research cycle for each thrust includes identifying fuel candidates, understanding their characteristics and combustion performance, and determining market transformation requirements such as cost, GHG reduction, feedstock requirements, scalability, and infrastructure compatibility, while providing feedback to stakeholders and future collaborators.

Projects selected under this FOA will complement the ongoing National Laboratory Project and support the broader Co-Optima initiative.

This FOA will solicit applications that address one or more of the following sub-topic areas:

- Fuel characterization and fuel property prediction

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- Kinetic measurement and mechanism development
- Emissions and environmental impact analysis
- Impact of fuel chemistry and fuel properties on particulate emissions
- Small volume, high-throughput fuel testing

Additional information about the Co-Optima initiative and National Laboratory Project can be found at: <http://energy.gov/eere/bioenergy/co-optimization-fuels-engines>.

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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 in August 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:

- 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](mailto: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.

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- 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](https://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect_Ready_Set_Go.pdf)
- 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>).

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