



U.S. Department of Energy
Advanced Research Projects Agency – Energy
Announcement of Teaming Partner List
for an upcoming Funding Opportunity Announcement:
Energy Efficiency Optimization for Connected and Automated Vehicles

The Advanced Research Projects Agency – Energy (ARPA-E) intends to issue a new Funding Opportunity Announcement (FOA) in March 2016 to solicit applications for financial assistance to develop innovative technologies for the optimization of the energy efficiency of connected and automated vehicles¹. As described in more detail below, the purpose of this announcement is to facilitate the formation of new project teams to respond to the upcoming FOA. The FOA will provide specific program goals, technical metrics, and selection criteria and the FOA terms are controlling. For the purposes of the Teaming Partner List, the following summarizes current planning for the FOA:

The focus of the intended ARPA-E program will be on the potential improvement in the energy efficiency of each *individual* vehicle in the automotive fleet, through the improvement of powertrain control and vehicle dynamic control, by utilizing emerging technologies and strategies in sensing, communications, information, control and automation. The program will cover a broad range of disciplines including automotive vehicle control, powertrain control and transportation analytics for the development of advanced energy efficiency optimization technologies for future connected and automated vehicles (CAVs). ARPA-E is interested in new and emerging full vehicle and powertrain control technologies that can reduce the energy use associated with automotive transportation, beyond those technologies currently expected to be deployed in future vehicles. These additional energy efficiency optimization technologies may include, but are not limited to, advanced technologies and concepts relating to future full vehicle and powertrain control, individual vehicle and powertrain operation, control and optimization facilitated by connectivity, and the reduction of the fuel and/or energy consumed by future individual vehicles undergoing either human or automated operation.

In order to realize the goals of the proposed ARPA-E program, expertise in the following areas may be useful: (i) vehicle energy efficiency and fuel efficiency optimization; (ii) powertrain control, calibration, and optimization; (iii) vehicle dynamic control; (iv) engine and propulsion hardware, sensors and, actuators; (v) vehicle connectivity; (vi) vehicle automation and control; and (vii) transportation analytics.

As a general matter, ARPA-E strongly encourages outstanding scientists and engineers from different organizations, scientific disciplines, and technology sectors to form new project teams. Interdisciplinary and cross-sector collaboration spanning organizational boundaries enables and accelerates the achievement of scientific and technological outcomes that were previously viewed as extremely difficult, if not impossible.

¹ <http://www.arpa-e.energy.gov/?q=workshop/powertrain-innovations-workshop>



The Teaming Partner List is being compiled to facilitate the formation of new project teams. ARPA-E intends to make the Teaming Partner List available on ARPA-E eXCHANGE (<http://ARPA-E-foa.energy.gov>), ARPA-E's online application portal, starting in January 2016. The Teaming Partner List will be updated periodically, until the close of the Full Application period, to reflect the addition of new Teaming Partners who have provided their information.

Any organization that would like to be included on the Teaming Partner list should complete all required fields in the following link: <https://ARPA-E-foa.energy.gov/Applicantprofile.aspx>. Required information includes: Organization Name; Contact Name; Contact Address; Contact Email; Contact Phone; Organization Type; Area of Technical Expertise; and Brief Description of Capabilities.

By submitting a response to this Notice, you consent to the publication of the above-referenced information. **By facilitating this Teaming Partner List, ARPA-E does not endorse or otherwise evaluate the qualifications of the entities that self-identify themselves for placement on the Teaming Partner List.** ARPA-E will not pay for the provision of any information, nor will it compensate any respondents for the development of such information. Responses submitted via email or other means will not be considered.

This Notice does not constitute a FOA. No FOA exists at this time. Applicants must refer to the final FOA, expected to be issued in March 2016, for instructions on submitting an application and for the terms and conditions of funding.