



U.S. Department of Energy Advanced Research Projects Agency – Energy

Announcement of Teaming Partner List for a potential Funding Opportunity Announcement: <u>Renewable Electricity to Zero-Carbon Liquid Fuels</u> <u>for Transportation and Stationary Energy</u>

The Advanced Research Projects Agency – Energy (ARPA–E) anticipates issuing a Funding Opportunity Announcement (FOA) in February, 2016 for novel technologies to transform the way renewable electricity is stored and transported from remote generation sites to the end point customer. Current transmission and distribution technologies are expensive, suffer from substantial losses, and require large investments in infrastructure.

The overarching goal of this anticipated program is to increase penetration of intermittent energy sources and reduce carbon emissions. To achieve this goal, new cost- effective and energy-efficient technologies for generation of energy dense liquid fuels from renewable energy, water and air sources, and their conversion to electricity or hydrogen as an energy carrier for zero-emission vehicles must be developed. This program will likely operate at the intersection of electrochemistry, catalysis, materials development, chemical engineering, and device integration. ARPA—E held a workshop on this topic in August 2015. More information on this workshop can be found at: http://arpa-e.energy.gov/?q=workshop/bridging-renewable-electricity-transportation-fuels-workshop.

Currently, ARPA—E anticipates that this program will have two areas of interest:

- 1. Generation of energy-dense liquid fuels using renewable energy; and
- 2. The use of these liquid fuels for zero-emission generation of electricity or hydrogen.

As a result, expertise in the following areas may be useful: (i) electrochemistry and electrocatalysis; (ii) heterogeneous catalysis; (iii) chemical engineering with emphasis on catalytic reactor design; (iv) electrochemical cell and stack design and manufacturing; (v) material chemistry including ion-conducting, sealing and multifunctional materials; (vi) separation techniques; (vii) process engineering; and (viii) system integration and scale up, etc.

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.

The Teaming Partner List is being compiled to facilitate the formation of new project teams. The Teaming Partner List will be available on ARPA—E eXCHANGE (http://ARPA—E-foa.energy.gov), ARPA—E's online application portal, starting in January 2016. Once posted, the Teaming Partner List will be updated periodically, until the Full Application submission deadline for the FOA, to reflect 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 persons/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 to other email addresses or by 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, if any, that may be issued in February 2016, for instructions on submitting an application and for the terms and conditions of funding.