



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

Announcement of Teaming Partner List for an upcoming Funding Opportunity Announcement:

New Program in Methane Abatement and Prevention

The Advanced Research Projects Agency – Energy (ARPA–E) is considering a program to prevent or abate anthropogenic methane emissions. Sources include coal mines, oil and gas wells, natural gas-fired engines, flares, uncontrolled emissions from landfills, and agriculture-related methane emissions from farming and ruminants. Successful teams would propose and validate integrated systems that will include a methane abatement/prevention technology, coupled with methane sensing/leakage detection system and associated controls. Abatement technologies of interest include, but are not limited to (1) biological remediation through methanotrophs and bio-filters, (2) chemistry based approaches including platinum group metals (PGM)/non-PGM based catalysis, plasma catalysis, electrochemical/electro catalysis, photocatalysis, or a combination thereof, (3) innovative mechanical design techniques to prevent emissions, (4) novel material synthesis to improve the durability and reliability for sealing oil and gas wells. ARPA-E is seeking transformative and implementable solutions to abate/prevent emissions from such sources using the technologies mentioned above. ARPA-E anticipates that by the end of the project duration, the teams will be able to demonstrate a systems solution that meets the program objectives either in a field setting or an emulated field setting.

This potential program is focused on systems to prevent or abate methane emissions. Approaches not of interest include:

- Work focused on basic research aimed at discovery and fundamental knowledge generation.
- Concepts that focus on methane detection and/or quantification without addressing prevention and/or abatement.
- Solutions that focus on incremental improvements in commercial technologies, incremental improvements in control systems for commercial technologies, or incremental improvements in operation or maintenance procedures.
- Large-scale demonstration projects of existing technologies.

ARPA–E held a workshop on these topics on October 20, 2020. Information from this workshop can be found at the event webpage (<u>https://arpa-e.energy.gov/events/preventing-abating-anthropogenic-methane-emissions-workshop</u>).

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. Multidisciplinary 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. Furthermore, ARPA-E strongly encourages involving industry partners to advise and





collaborate with teams, with the ultimate goal of achieving successful industry adoption and integration of a new risk-driven operational and planning paradigm.

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 (<u>http://ARPA–E-foa.energy.gov</u>), ARPA–E's online application portal, in October 2020. Once posted, the Teaming Partner List will be updated periodically, until the close of the Full Application period, 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: <u>https://arpa-e-foa.energy.gov/ApplicantProfile.aspx</u>. 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 Announcement, you consent to the publication of the abovereferenced 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 to other email addresses or by other means will not be considered.

<u>This Announcement does not constitute a FOA. No FOA exists at this time.</u> Applicants must refer to the final FOA, expected to be issued by the end of December 2020, for instructions on submitting an application, the desired technical metrics, and for the terms and conditions of funding.