



**U.S. Department of Energy
Advanced Research Projects Agency – Energy
Announcement of Teaming Partner List
for Funding Opportunity Announcement:
Exploratory Topic M: H2SENSE**

The Advanced Research Projects Agency – Energy (ARPA-E) has issued a Funding Opportunity Announcement (FOA) to support the development and validation of technologies that can detect the release of hydrogen from production, transportation, and storage infrastructure. As described in more detail below, the purpose of this announcement is to facilitate the formation of new project teams to respond to the Exploratory Topic M: H2SENSE FOA. The FOA provides specific program goals, technical metrics, and selection criteria. FOA terms are controlling.

For the purposes of this Teaming Partner List, the overall H2SENSE program goal is to develop technologies that can lead to hydrogen emissions detection at costs amenable to widespread deployment. Technologies of interest should comprise of fully integrated systems that incorporate sensors, data transmission, hydrogen dispersion and quantification analyses, and any peripheral components and modeling necessary for operation and calibration. Hydrogen emissions detection systems may rely on a single or multiple sensors. Both active sensors and passive sensors may be considered.

Expertise in the following areas may be useful in responding to the FOA:

- Active and Passive Sensors: Active sensors are defined as those which involve the projection of energy (e.g., light or sound) into the environment and detect changes caused by the presence of hydrogen. Passive sensors are those which monitor the environment without emitting energy into the monitored area.
- Sensor Deployment Methodologies: Fixed, drones, vehicular, etc.
- Modeling: Capabilities including data analytics, site modeling, weather data integration, transport modeling, inversion calculations, emissions localization, and error quantification.
- Systems Integration: Packaging and integration of sensors and supporting hardware, and modeling and analysis capabilities to create an end-result measurement of quantified, localized hydrogen emissions.

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 on April 30. 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 this list should complete all required fields in the following link: <https://arpa-e-foa.energy.gov/Applicantprofile.aspx>. Required information includes the following: 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 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 list is completely voluntarily to participate in and utilize.** ARPA-E will not identify or facilitate connections through the teaming list and participation in the list has no bearing whatsoever on the evaluation of applications submitted to the FOA.

This Notice does not constitute a FOA. Applicants must refer to the Exploratory Topic M: H2SENSE FOA, issued on April 25, 2024, for instructions on submitting an application and for the terms and conditions of funding. Questions about the FOA should be directed to ARPA-E-CO@hq.doe.gov.