



**U.S. Department of Energy  
Advanced Research Projects Agency – Energy  
Announcement of Teaming Partner List  
for Upcoming Funding Opportunity Announcement:  
Transportation Energy Resources from Renewable Agriculture (TERRA)**

The Advanced Research Projects Agency Energy (ARPA-E) intends to issue a Funding Opportunity Announcement (FOA) entitled Transportation Energy Resources from Renewable Agriculture (TERRA), soliciting applications to pursue innovative research targeted at accelerating energy crop development for the production of transportation fuels and biomass. As described in more detail below, the purpose of this announcement is to facilitate the formation of new project teams that respond to the upcoming TERRA FOA. The FOA will provide specific program goals, technical metrics, and selection criteria. The FOA terms will be controlling. For purposes of the Teaming Partner List, the following summarizes current planning for the FOA:

The overall objective of the TERRA program is to increase the rate and extent of genetic improvement of the yield of bioenergy crops. This improvement will enhance land use efficiency, reduce competition with food crops, improve environmental sustainability, and provide a stable supply of biomass for transportation fuels and bio-refineries. It is expected that applicant teams for the TERRA program should leverage advancements in mobile platforms, sensor technologies, computational analytics and low-cost nucleotide sequencing. It is the objective of the program to establish the key intermediate phenotypes related to yield, which can be collected with enough accuracy to predict the growth of an individual plant or population of plants of a particular genetic makeup, and to do so across a high volume of breeder plots at the field level. ARPA-E is interested in applications in the following areas: the development of high throughput automated hardware and sensing technologies to acquire phenotypic data in the field, throughout the growing season, and across environments; methods to provide highly resolved genotypic profiles for the populations being phenotyped under field and controlled-environment conditions that will provide the foundation for elucidating genotype-phenotype associations; and the development of algorithmic-based computational solutions for discovering the most important phenotypes and predicting performance of field grown plants.

Previously, ARPA-E held a workshop on this topic. More information on the workshop can be found at <http://arpa-e.energy.gov/?q=arpa-e-events/plant-phenotyping-workshop>.

ARPA-E anticipates that expertise including, but not limited to, the following technical areas may be useful in responding to the FOA: plant physiology, breeding, genetics, genomics, bioinformatics, computational biology, data analytics, robotics, machine learning, and sensing technologies.

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 September 2014. 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: 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 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, expected to be issued in September or October 2014, for instructions on submitting an application and for the terms and conditions of funding.