



925.719.2704



anna@buildmomentum.io



## Notice of Funding Opportunity

**Title:** Advanced Research Projects Agency – Energy (ARPA-E) OPEN 2021  
**Website:** <https://arpa-e-foa.energy.gov/Default.aspx#Foald2b1605fb-a156-4d55-aa5b-b4c1a213c736>  
**Funding:** Total: \$100,000,000. Maximum awards: \$250K-\$10M, depending on project.  
**Dates:** Questions Deadline: March 26, 2021  
Concept Papers Deadline: April 6, 2021  
Application Submission Deadline: TBD

**Summary:** The objective of an ARPA-E OPEN FOA is simple, yet comprehensive: to support high-risk R&D leading to the development of potentially disruptive new technologies across the full spectrum of energy applications. ARPA-E seeks to support early-stage, but potentially transformational research, in all areas of energy R&D, covering transportation and stationary applications. Areas of research responsive to this FOA include (but are not limited to) electricity generation by both conventional and renewable means; electricity transmission, storage, and distribution; energy efficiency for buildings, manufacturing and commerce, and personal use; and all aspects of transportation, including the production and distribution of both renewable and non-renewable fuels, electrification, and energy efficiency in transportation.

### **Project Topic Areas:**

#### CATEGORY 1: GRID

Subcategory A: Grid Transmission; Subcategory B: Grid Distribution; Subcategory C: Modeling, Software, Algorithms, And Control For The Grid; Subcategory D: Batteries – Grid Scale; Subcategory E: Grid Scale (Non-Battery) Storage; Subcategory F: Grid Reliability; Subcategory G: Grid – Other

#### CATEGORY 2: TRANSPORTATION

Subcategory A: Alternative Fuels (Non-Bio); Subcategory B: Engines – Transportation; Subcategory C: Electric Motors – Transportation; Subcategory D: Fuel Cells – Transportation; Subcategory E: Advanced Vehicle Designs and Materials; Subcategory F: Transportation Management; Subcategory G: Power Electronics – Transportation; Subcategory H: Non-Automotive Ground/Sea Transportation; Subcategory I: Air Transportation; Subcategory J: Batteries – Transportation; Subcategory K: Non-Battery Storage For Transportation; Subcategory L: Transportation – Other

#### CATEGORY 3: BUILDING EFFICIENCY

Subcategory A: Combined Heat and Power; Subcategory B: Building Heating and Cooling; Subcategory C: Building Energy Demand Management; Subcategory D: Lighting; Subcategory E: Building Envelope; Subcategory F: Building Efficiency – Other

#### CATEGORY 4: POWER GENERATION AND ENERGY PRODUCTION: FOSSIL/NUCLEAR

Subcategory A: Combined Processes – Generation with Fossil Fuels; Subcategory B: Stationary Engines/Turbines For Generation with Fossil Fuels; Subcategory C: Stationary Fuel Cells For Generation with Fossil Fuels; Subcategory D: Nuclear Fission Power Generation and Materials; Subcategory E: Nuclear Fusion Power Generation and Materials; Subcategory F: Carbon Capture; Subcategory G: Exploration And Extraction (Non-Geothermal) Of Conventional and Unconventional Fossil Resources; Subcategory H: Planning And Operations For Generation with Fossil Fuels; Subcategory I: Infrastructure for Combustible Gas; Subcategory J: Chemical and Biological Conversions From Fossil Fuels; Subcategory J: Water Conservation In Power Generation; Subcategory K: Generation with Fossil Fuels – Other

#### CATEGORY 5: POWER GENERATION: RENEWABLE

Subcategory A: Wind – Energy Capture; Subcategory B: Wind – Energy Conversion; Subcategory C: Geothermal Energy; Subcategory D: Hydro Energy; Subcategory E: Solar – PV/CPV; Subcategory F:

801 K Street, Suite 2700  
Sacramento CA 95814  
buildmomentum.io



**MOMENTUM**

925.719.2704



anna@buildmomentum.io



Solar – Non-PV; Subcategory G: Power Electronics – Renewable Generation; Subcategory H: Renewable Power – Other

#### CATEGORY 6: BIOENERGY

Subcategory A: Biomass Production; Subcategory B: Biofuel Production – Biological Methods; Subcategory C: Biofuel Production – Nonbiological Methods; Subcategory D: Bioenergy Supply Chain; Subcategory E: Bioenergy – Other

#### CATEGORY 7: OTHER ENERGY TECHNOLOGIES

Subcategory A: Water Production/Reuse; Subcategory B: Thermal Energy Storage; Subcategory C: Advanced Manufacturing; Subcategory D: Appliance And Consumer Electronics Efficiency (End Use); Subcategory E: Data Centers And Computation; Subcategory F: Industrial Efficiency – Materials; Subcategory G: Industrial Efficiency – Other; Subcategory H: Heat Recovery; Subcategory I: High Temperature Materials; Subcategory J: Semiconductors; Subcategory K: Portable Power; Subcategory L: Other Energy Technologies Not Listed Above

#### **Funding:**

ARPA-E expects to make approximately \$100 million available for new awards under this FOA, subject to the availability of appropriated funds. ARPA-E anticipates making approximately 30-50 awards under this FOA. ARPA-E may, at its discretion, issue one, multiple, or no awards. Individual awards may vary between \$250,000 and \$10 million in Federal share. The period of performance for funding agreements may not exceed 36 months. Applicants are bound by the cost share proposed in their Full Applications. Cost share varies from 5-20% dependent upon applicant and project.

#### **Project Requirements:**

Describe the proposed concept with minimal jargon, and explain how it addresses the Program Objectives of the FOA. Clearly identify the problem to be solved with the proposed technology concept. Describe how the proposed effort represents an innovative and potentially transformational solution to the technical challenges posed by the FOA. Explain the concept's potential to be disruptive compared to existing or emerging technologies. Describe how the concept will have a positive impact on at least one of the ARPA-E mission areas: reducing imported energy, reducing energy-related emissions, and improving energy efficiency. To the extent possible, provide quantitative metrics in a table that compares the proposed technology concept to current and emerging technologies and to the appropriate Technology Category in the FOA.

#### **Eligible Applicants:**

This FOA is open to U.S. universities, national laboratories, industry and individuals. U.S. citizens or permanent residents may apply for funding in their individual capacity as a Standalone Applicant, as the lead for a Project Team, or as a member of a Project Team. For-profit entities, educational institutions, and nonprofits that are incorporated in the United States, including U.S. territories, are eligible to apply for funding as a Standalone Applicant, as the lead organization for a Project Team, or as a member of a Project Team. FFRDCs/DOE Labs are eligible to apply for funding as the lead organization for a Project Team or as a member of a Project Team that includes institutions of higher education, companies, research foundations, or trade and industry research collaborations, but not as a Standalone Applicant. Federal agencies and instrumentalities (other than DOE), state, local, and tribal government entities are eligible to apply for funding as a member of a Project Team, but not as a Standalone Applicant or as the lead organization for a Project Team. Foreign entities, whether for-profit or otherwise, are eligible to apply for funding as Standalone Applicants, as the lead organization for a Project Team, or as a member of a Project Team. Consortia, which may include domestic and foreign entities, must designate one member of the consortium as the consortium representative to the Project Team. The consortium representative must be incorporated in the United States.