



DELAWARE ENERGY
INSTITUTE

Funding Opportunities

May 9, 2022

Department of Energy

Foundational Agrivoltaic Research for Megawatt Scale (FARMS) | Deadline: LOI (required) June 1, 2022; Full Proposal: August 30, 2022

Summary: The Foundational Agrivoltaic Research for Megawatt Scale (FARMS) funding opportunity will award \$8 million in funding for projects that examine how agrivoltaics can scale up to provide new economic opportunities to farmers, rural communities, and the solar industry. Agrivoltaics is defined as agricultural production, such as crop production, livestock grazing, and pollinator habitat, that exist underneath solar panels and/or in between rows of solar panels

Program Description: SETO is interested in projects that partner with farmers who are pursuing climate-smart and sustainable agriculture and are considering agrivoltaics to enhance the economic efficiency and sustainability of these farms. Additionally, SETO is interested in projects that offer economic benefits to underserved communities in these farming areas. This funding opportunity announcement (FOA) has three areas of interest:

- Integrated agriculture-energy impact studies that investigate how agrivoltaic designs impact both agriculture production and energy production;
- Socioeconomics of agrivoltaics research that studies how agrivoltaics can fit into existing agricultural communities and economies or enable new ones; and
- Resources for replicable and scalable agrivoltaics that lower the barrier of entry to agrivoltaics, making it easier for interested agricultural producers and solar developers to benefit from the opportunities that agrivoltaics provides.

Estimated Number of Awards/Funding Amount: DOE expects to make between 4 and 6 awards under FARMS, each ranging from \$1-2 million.

Informational Webinar: May 12, 3:00 – 4:00 pm EST [REGISTER](#).

Additional Information: [DE-FOA-0002697](#)

National Science Foundation
Leading Engineering for America's Prosperity, Health, and Infrastructure |
Deadlines: LOI July 15, 2022; Full Proposal September 15, 2022

Summary: The LEAP HI program challenges the engineering research community to take a leadership role in addressing demanding, urgent, and consequential challenges for advancing America's prosperity, health and infrastructure. LEAP HI proposals confront engineering problems that are too complex to yield to the efforts of a single investigator --- problems that require sustained and coordinated effort from interdisciplinary research teams, with goals that are not achievable through a series of smaller, short-term projects. LEAP HI projects perform fundamental research that may lead to disruptive technologies and methods, lay the foundation for new and strengthened industries, enable notable improvements in quality of life, or reimagine and revitalize the built environment.

- LEAP HI supports fundamental research projects involving collaborating investigators, of duration up to five years, with total budget between \$1 million and \$2 million.
- LEAP HI proposals must articulate a fundamental research problem with compelling intellectual challenge and significant societal impact, particularly on economic competitiveness, quality of life, public health, or essential infrastructure. One or more CMMI core topics must lie at the heart of the proposal, and integration of disciplinary expertise not typically engaged in CMMI-funded projects is encouraged.
- LEAP HI proposals must include an Engineering Leadership Plan that creatively communicates the excitement of engineering research to the general public, and particularly to future engineers, as the project unfolds.
- LEAP HI proposals must demonstrate the need for a sustained research effort by an integrated, interdisciplinary team and include a Research Integration Plan that provides a timeline for research activities and clearly explains how the project will be managed to ensure effective integration of project thrusts.

Estimated Number of Awards: 3 to 6 will be made each year.

Estimated Funding Amount: \$6,000,000 to \$12,000,000.

Additional Information: [NSF 22-594](#)

Department of Energy

Electric Vehicles for American Low-Carbon Living | Deadlines: FOA 0002760 June 16, 2022; FOA 0002761 September 16, 2022

Summary: As the U.S. works to decarbonize the transportation sector and produce an increasing amount of “clean” (zero emission) electricity, electric vehicles (EVs) become logical alternatives to internal combustion engines (ICEs). However, to accelerate and/or broaden EV adoption, consumer-centric considerations need to be more thoroughly addressed, including cost, convenience, reliability, and safety. Although it is expected that EVs will continue to gain market share domestically, significantly more effort is required to address and remove key technology barriers to EV adoption among a greater percentage of the population. In response to these challenges, ARPA-E's Electric Vehicles for American Low-Carbon Living (EVs4ALL) program will focus on advancing next-generation battery technologies that have the potential to significantly improve affordability, convenience, reliability, and safety of EVs compared to those available today. The EVs4ALL program's primary objective is to increase domestic EV adoption through elimination of key battery detractors such as slow charge time, disappointing winter performance, and concerns regarding resilience and high cost.

Program Description: The overarching goal of the EVs4ALL program is to leverage new battery innovations at the material, electrode, and cell design level to mitigate the primary EV adoption detractors to the greatest extent possible. The battery development focus is divided into two discrete development tracks (Categories 1 and 2) defined primarily by cell-level energy density, charge rate, low temperature performance losses and cycle life targets, and a third parallel and complementary track (Category 3) focused on safety. Specifically:

- Category 1: cells that can be charged safely at exceptionally high rates;
- Category 2: higher energy cells that can be charged rapidly, yet at lower rates compared to Category 1.
- Category 3: safety in parallel and complementary to the battery cell development tracks (Categories 1 and 2), with the intent to de-risk those chemistries with commercial potential developed under this program by the early application of competent and intentional failure analysis, Failure Mode Effects Analysis (FMEA), and deployment of new testing protocols and techniques.

Estimated Number of Awards: ARPA-E anticipates making approximately 10-12 awards under FOAs DEFOA-0002760 and DE-FOA-0002761.

Estimated Funding Amount: ARPA-E expects to make approximately \$45 million available for new awards, to be shared between FOAs DE-FOA-0002760 and DE-FOA-0002761, subject to the availability of appropriated funds.

Individual awards may vary between \$1 million and \$6 million in Federal share (FOA 0002760); Combined Phase I/II/IIS awards may be funded up to \$3,952,638. In the event

that ARPA-E selects Phase I only or Phase I/II only, then the maximum award amount for a Phase I award is \$275,766 and the maximum amount for a Phase I/II award is \$2,114,202 (FOA 0002761).

Additional Information: [DE-FOA-000276](#); [DE-FOA-0002761](#)

ExxonMobile

2022 ExxonLoft Fellowship Program | Deadline: May 15, 2022

Summary: ExxonMobil Corporation has partnered with the Hispanic Heritage Foundation (HHF) to create fellowship opportunities in the STEM fields (Science, Technology, Engineering, and Math) for Hispanic college students. Through HHF's Latinos On Fast Track (LOFT) program, ExxonMobil seeks to nurture motivated college students across the country, with a passion for Engineering and Science.

Fellowship Components: The Fellowship consists of five 1-hour meetings with a mentor (virtual or in person), participation in the Harvard-certified ExxonMobil mentee program (online), an exclusive curriculum to introduce Fellows to ExxonMobil and career opportunities, and a \$1,000 educational grant. In addition, there exists the possibility to interview for ExxonMobil positions (internships/full-time) upon successful completion of the Fellowship.

Fellowship Requirements: This opportunity is highly competitive and open to rising sophomores, juniors, seniors, and Graduate Students attending a 4-year college or university. Fellowship applicants with the following majors will be given priority: Civil Engineering; Chemical Engineering; Computer Engineering; Electrical Engineering; Geoscience; Material Science and Engineering; Mechanical Engineering. Applicants must plan to pursue a career in the fields/majors listed, have a GPA of 3.5 or higher, and be a U.S. citizen or legal permanent resident of the United States with a valid Social Security Number at the time of application.

Application: [Fellowship Application](#)