



# Connections

The Strategic Energy Institute Newsletter

## Funding Opportunities as of February 22, 2023

### Opportunities Listed by Deadlines

1. [Advancing Fish Passage and Protection Technologies](#)

DE-FOA-0002801

Concept Paper Due: 12/5/2022

Full Application Due: 3/27/2023

This FOA seeks to advance innovative fish passage technologies by providing data on biological effects and fish passage performance. Technology innovations include: 1) novel solutions that are accompanied by analytical or experimental evidence that has established proof-of-concept and provides a rationale for next steps testing needs in terms of a critical path for research and development leading to market adoption; and 2) innovations to existing technologies that reduce negative impacts to fish, increase performance, show potential to dramatically reduce costs, and/or present applications to novel use cases (e.g., different fish species evaluations, environmental conditions, or types of infrastructure). The development of technical solutions to enable and improve safe, timely, and effective fish passage and protection at hydropower dams can improve hydropower's environmental performance, supports infrastructure sustainability, and contributes to fish restoration goals.

[Download FOA](#)

2. [Strategic Environmental Research and Development Program \(SERDP\) Core FY 2024 Solicitation](#)

Pre-Proposal Due: 1/10/2023

Full Application Due: 3/14/2023

SERDP is seeking proposals responding to Statements of Need (SONs) for projects to be funded in fiscal year 2024. SERDP and ESTCP harness the latest science and technology to develop and demonstrate innovative, cost-effective, and sustainable solutions to meet DoD's environmental and installation energy and water challenges. SERDP has released multiple funding opportunities, several of which may align with the research programs of those in the Georgia Tech energy community.

[SERDP FY 2024 Calls for Proposals](#)

3. [DOE - Frontier-Level Research in Basic Plasma Science and Engineering](#)

DE-FOA-0002889

Pre-Applications Due (required): 1/12/2023 / 5 PM ET

Full Applications Due: 3/6/2023 / 11:59 PM ET

The U.S. Department of Energy (DOE) Office of Science, Fusion Energy Sciences (FES) program hereby

announces its interest in receiving new or renewal single-investigator or small-group research applications to carry out frontier-level research in basic plasma science and engineering. The FES General Plasma Science (GPS) program supports research at the frontiers of basic and low temperature plasma science, including dynamical processes in laboratory, space, and astrophysical plasmas, such as magnetic reconnection, dynamo, shocks, turbulence cascade, structures, waves, flows and their interactions; behavior of dusty plasmas, non-neutral, single-component matter or antimatter plasmas, and ultra-cold neutral plasmas; plasma chemistry and processes in low temperature plasma, interfacial plasma, synthesis of nanomaterials, and interaction of plasma with surfaces, materials or biomaterials. Informational [webinar](#) will be held on December 16, 2022 at 12:00 p.m. ET.

[Download the FOA](#)

4. [Funding Opportunity Announcement: FY 2023 Climate Resilience Centers](#)

DOE SC\_FOA\_0002915

Pre-Application Due: 1/19/2023 5 p.m. ET

Full Application Due: 3/31/2023 11:59 p.m. ET

The Department of Energy Office of Science program in Biological and Environmental Research (BER) announces its interest in applications from the scientific community for Climate Resilience Centers (CRCs) that will improve the availability and utility of BER research, data, models, and capabilities to address climate resiliency, particularly by underrepresented or vulnerable communities. These science-based predictive tools and methods are needed to inform policies and plans for strengthening the security and resilience of critical infrastructure and natural resources. A [webinar](#) will be held to provide information on the Climate Resilience Centers FOA on December 9, 2022 at 1 p.m. EST.

[Download the FOA](#)

5. [Opportunity to Establish Centers of Excellence at Existing Industrial Assessment Centers](#)

DE-FOA-0002866

Pre-Application Due: 1/20/2023 5:00 p.m. ET

Full Application Due: 2/17/2023 5:00 p.m. ET

The Office of Manufacturing and Energy Supply Chains (MESCC) is issuing a restricted eligibility Funding Opportunity Announcement (FOA) to establish up to five regional Centers of Excellence at existing Industrial Assessment Centers (IACs) to coordinate with and advise IACs located in the regions of the Centers of Excellence. DOE expects to make a total of up to \$18,750,000 of federal funding available for three to five awards under this FOA, subject to the availability of appropriated funds. However, DOE may issue one, multiple, or no awards. Individual awards are anticipated to be for \$2,500,000 to \$3,750,000 each over a five-year performance period.

Informational [Webinar](#): 12/14/2022 2:00 p.m. ET

[Download the FOA](#)

6. [Research Opportunities to Address Deployment Challenges for Offshore, Land-based and Distributed Wind](#)

DE-FOA-0002828

Pre-Application Due: 1/20/2023 5:00 p.m. ET

Full Application Due: 3/10/2023 5:00 p.m. ET

The Wind Energy Technologies Office (WETO) is issuing an FOA titled Bipartisan Infrastructure Law (BIL) to address key deployment challenges for offshore, land-based, and distributed wind.

The activities to be funded under this FOA support innovations needed to advance U.S. wind systems, reduce the cost of electricity, and accelerate the deployment of wind power, maximize the benefits of the clean energy transition as the nation works to curb the climate crisis, empower workers, and advance environmental justice.

Topic Areas

- (1) High Voltage Direct Current (HVDC) for Offshore Wind
- (2) Advancing Deployment of Distributed (ADD) Wind
- (3) Offshore Wind Energy Social Science Research
- (4) Bat Deterrent Technology Development

[Download the FOA](#)

7. [FOA for Applied Research and Development for Materials and Technologies to Drive Innovation in Clean Manufacturing](#)

DE-FOA-0002864

Concept Paper Due: February 3, 2023 | 5 p.m. ET

Full Application Due: April 7, 2023 | 5 p.m. ET

On January 4, the U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) announced a \$52 million funding opportunity announcement (FOA) that will accelerate research, development, and demonstration (RD&D) in domestic manufacturing to strengthen America's economic competitiveness and move the U.S. towards a net-zero carbon economy by 2050. The FOA, led by EERE's Advanced Materials and Manufacturing Technologies Office (AMMTO), will drive innovation to develop the next-generation materials and manufacturing technologies required to help tackle the climate crisis, secure our domestic supply chains, and position the U.S. as a leader in the global clean energy economy.

The technologies supported by this funding will advance economy-wide decarbonization by reducing the carbon footprint across the industrial, buildings, transportation, power, and agricultural sectors. The FOA includes the following topic areas:

**Next Generation Materials and Manufacturing** — This topic area, supported in part by the Office of Electricity, focuses on the cost-effective manufacturing processes and development of novel materials with improved properties such as high strength, enhanced conductivity, or high performance under extreme conditions. Specific subtopics include increased conductivity metal-based material systems, harsh environment materials, and AI/machine learning for aerostructures.

**Secure and Sustainable Materials** — This topic area focuses on materials RD&D to support the establishment of a circular economy with an emphasis on material and product design, recycling technology development, and reverse supply chain logistics. A specific area of interest is regional pilot-scale demonstrations of circular supply chains that include advancements in technologies such as innovative material recovery, end-of-life processing, and recycling.

**Energy Technology Manufacturing** — This topic area, co-funded by the Building Technologies Office, focuses on clean energy technology manufacturing innovation to improve performance and address technical barriers. Specific subtopics are building dehumidification scale-up and the development, scale-up, and demonstration of processing technologies to manufacture state-of-the-art cathode active materials (CAM) for domestic electric vehicle battery manufacturing.

The awards will be issued as cooperative agreements with a period of performance of two to three years.

[Download the FOA](#)

8. [ESTCP FY 2024 Solicitation](#)

Informational Webinar: 1/20/2023 1-2.30 pm ET

Pre-proposals Due: 3/9/2023 | 2 p.m. ET

On January 6, the Department of Defense's (DoD) Environmental Security Technology Certification Program (ESTCP) released a solicitation requesting proposals for demonstrations of environmental and installation energy technologies. The Broad Agency Announcement (BAA) and Call for Proposals for Federal Organizations Outside DoD request pre-proposals responding to the following topics only:

- Innovative Technology Transfer Approaches
- Nonstationary Storm Analysis for Installation Engineering and Planning
- Green House Gas (GHG) Assessment Methodologies for Military Construction Building Materials,

Construction, and Lifecycle

- Retrospective Assessment of Coastal Installation Protection Infrastructure
- Management of Impacted Soils and Groundwater
- Engaging Energy Services Companies (ESCOs) and Utilities to Demonstrate Innovative Technologies
- Energy Resilience on DoD Installations
- Automated Inventory Tools for Facility Related Control Systems (FRCS)
- Water Resilience on DoD Installations
- Planning for Zero-Emission Heavy Duty Vehicles on DoD Installations
- Transition DoD's Grounds Maintenance Equipment to Zero-Emission Alternatives
- Detection, Classification, Localization, and Remediation of Military Munitions in Underwater Environments
- Advancing Technology for Rapid Survey and Assessment of Cultural Resources on DoD Lands
- Advancing Technology for Monitoring and Assessment of Natural Resources on DoD Lands
- Demonstration and Validation of PFAS-free Aqueous Film Forming Foams and their Evaluation and Training Methodologies
- Demonstration and Validation of Corrosion Mitigation Solutions

Informational webinar is available on January 20, 2023, from 1:00-2:30 p.m. ET. [Pre-registration](#) for this webinar is required.

### [Call for Proposal Details](#)

#### 9. [FOA: Develop and Commercially Demonstrate Regional DAC Hubs in the U.S.](#)

DE-FOA-0002735

Mandatory Letter of Intent: 1/24/2023, 5 PM ET

Full Application Due: 3/13/2022, 5 PM ET

This FOA seeks applications to develop and commercially demonstrate regional Direct Air Capture (DAC) hubs in the United States. This FOA shall provide funding for eligible projects that contribute to the development and demonstration of four domestic Regional DAC Hubs to accelerate the commercialization of CO2 removal via integrated capture from the atmosphere, processing, transport, and secure geologic storage and/or conversion.

[FedConnect Link](#) || [Lewis-Burke Snapshot](#)

#### 10. [DOE Announces \\$10 Million to Support Transformative Energy Technologies Across Wide Range of Technical Areas](#)

DE-FOA-0002785

Full Application Submission Deadline: 3/21/2023 9:30 AM ET

On February 17, 2023, the U.S. Department of Energy announced up to \$10 million in funding to identify and support disruptive energy technologies that have the potential to shore up domestic energy production, improve energy efficiency and reliability, reduce greenhouse gas emissions, and increase America's resiliency and security. The funding announced today is part of the Advanced Research Projects Agency-Energy (ARPA-E) Exploratory Topic, Creating Revolutionary Energy and Technology Endeavors (CREATE).

CREATE projects are intended to help establish potential new areas of technology development and provide ARPA-E with information that could lead to new focused funding programs. Awards may support exploratory research to establish viability, proof-of-concept demonstration for new energy technology and/or modeling and simulation efforts to guide development of new energy technologies.

This announcement is purposely broad in scope, and will cover a wide range of topics to encourage the submission of the most innovative and unconventional ideas in energy technology. The objective of this solicitation is to support high-risk R&D leading to the development of potentially disruptive new technologies across the full spectrum of energy applications. Topics under this FOA will explore new areas of technology development that, if successful, could establish new program areas for ARPA-E, or complement the current portfolio of ARPA-E programs.

Targeted Topics:

- A. Low-Energy Nuclear Reactions (Closed - FA Deadline 9:30 AM ET 11/15/2022)
- B. RESERVED
- C. Creating Revolutionary Energy And Technology Endeavors (OPEN - FA Deadline 9:30 AM ET 3/21/2023)

[Download the FOA](#)

11. [\*\*\\$80M from DOE - Research Opportunities for Energy Improvements at Public School Facilities\*\*](#)

DE-FOA-0002756

Pre-Application Due: 1/26/2023 5 p.m. ET

Full Application Due: 4/21/2023 5 p.m. ET

The Office of State and Community Energy Programs is issuing a funding opportunity announcement (FOA) for energy improvements at public K-12 school facilities. The activities to be funded under this FOA support projects that enable replicable and scalable impacts, create innovative, sustaining partnerships, leverage funding and economies of scale, focus on disadvantaged communities, improve student, teacher, and occupant health, enrich learning and growth, assist schools that serve as community assets, and are crafted within the context of public school facilities.

Topic Areas

(1) High-Impact Energy Efficiency and Health Improvements

(2) Innovative Energy Technology Packages

[Download the FOA](#)

12. [\*\*DE-FOA-0002813: Resilient and Efficient Codes Implementation\*\*](#)

DE-FOA-0002813

Concept Paper Due: 1/31/2023, 5 PM ET

Applications Due: 3/27/2023, 5 PM ET

The U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) Building Technologies Office (BTO) is issuing this Funding Opportunity Announcement (FOA) titled Bipartisan Infrastructure Law: Resilient and Efficient Codes Implementation. The activities to be funded under this FOA support the BIL, as well as a broader government-wide approach to advance building codes and support their successful implementation. The primary focus centers around updating to more efficient building energy codes that save money for American homes and businesses, reduce greenhouse gas (GHG) emissions, and encourage more resilient buildings. This FOA includes one topic area broadly focused on the cost-effective implementation of updated energy codes. DOE expects to make a total of approximately \$45,000,000 of federal funding available for new awards under this FOA, subject to the availability of appropriated funds. DOE anticipates making approximately 10-30 awards under this FOA. DOE may issue one, multiple, or no awards. Individual awards may vary between \$500,000 and \$10,000,000.

[Download the FOA](#)

13. [\*\*DOE Opportunity: \\$23 Million to Fund Research and Development to Decarbonize Water Resource Recovery Facilities\*\*](#)

DE\_FOA\_0002855

Concept Paper Due: 1/27/2023, 5 PM ET

Full Applications Due: 4/3/2023, 5 PM ET

The U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) issued a \$23 million funding opportunity announcement (FOA) that will drive innovation to decarbonize the entire life cycle of Water Resource Recovery Facilities (WRRFs). These facilities, which treat wastewater from public water systems, are among the country's largest industrial electricity users with full lifecycle greenhouse gas (GHG) emissions on par with direct emissions from the food and beverage industry— one of the largest GHG-emitting industries in the United States. This FOA will accelerate research, development, and demonstration (RD&D) of technologies to lower GHG emissions from WRRFs to help decarbonize our nation's water treatment sector and move the U.S. closer to a net-zero economy by 2050.

[Download the FOA](#)

**14. Building Energy Efficiency Frontiers & Innovation Technologies (BENEFIT) - 2022-2023**

DE-FOA-0002788

Concept Paper Due: 2/7/2023, 5 PM ET

Applications Due: 4/5/2023, 5 PM ET

The Office of Energy Efficiency and Renewable Energy (EERE) is issuing, on behalf of the Building Technologies Office (BTO), a Funding Opportunity Announcement (FOA) titled “Buildings Energy Efficiency Frontiers & Innovation Technologies (BENEFIT) – 2022/2023”.

The 2022/2023 BENEFIT FOA will invest up to \$15.35M - \$45.2M across 5 topic areas to allow all interested parties to research and develop high-impact, cost-effective technologies and practices that will reduce carbon emissions, improve flexibility and resilience, as well as lower energy costs.

- (1) Heating, Ventilation, and Air Conditioning and Water Heating: Technologies with improved materials, components, equipment design and engineering, lower cost manufacturing processes, and easier installation.
- (2) Thermal Energy Storage (TES): Development and validation of next generation plug-and-play TES products with improved cost and performance and ease of installation to accelerate adoption of TES in HVAC applications.
- (3) Battery Energy Storage Systems (BESS): Development, validation, and demonstration of product innovations that reduce the cost of BESS integration, improve the coordination between distributed BESS and the electrical grid, as well as help meet building decarbonization targets.
- (4) Plug Loads/Lighting: Integration of plug load controls with connected lighting systems in commercial buildings with minimal cost and complexity to support building electrification.
- (5) Opaque Building Envelope: Development, validation, and demonstration of high-impact, affordable, opaque building envelope retrofit and diagnostic technologies.

[FOA Link](#)

**15. DOE Opportunity: Distributed Resilient Systems**

DE-FOA-0002902

Pre-Applications Due (required): 2/9/2023, 5 PM ET

Full Applications Due: 3/30/2023, 11:59 PM ET

The DOE SE program in Advanced Scientific Computing Research (ASCR) is interested in receiving proposals focusing on basic research in computer science that explores innovative approaches to creating distributed resilient systems for science. Such systems might be national or global in scale, linking geographically-distributed computing systems and scientific instruments, and might involve a large number of edge devices or sensors, but regardless, must manage computation and data in scalable and fault-tolerant manner. Important research challenges involve techniques for advanced middleware and operating and runtime systems, with this FOA targeting two research areas: 1) scalable system modeling, and 2) adaptive management and partitioning of resources. Advances in these areas will contribute to scaling-up our increasingly complex and interconnected scientific enterprise.

[Download the FOA](#)

**16. \$23M Funding Opportunity Announcement: Onsite Energy Technical Assistance Partnerships**

DE-FOA-0002945

Informational Webinar: 02/22/2023 1:00pm ET

Letter of Intent (optional): 2/28/2023 5:00pm ET

Full Application Due: 4/21/2023 5:00pm ET

On behalf of the Industrial Efficiency and Decarbonization Office (IEDO), the Office of Energy Efficiency and Renewable Energy (EERE) is issuing a Funding Opportunity Announcement (FOA) entitled “Onsite Energy Technical Assistance Partnerships.” This FOA will invest up to \$23 million for the development and operations

of the Onsite Energy Technical Assistance Partnerships (TAPs). This FOA supports DOE's industrial decarbonization strategy by providing technical assistance to help industrial facilities and other large energy users increase the adoption of clean onsite energy technologies. This FOA will make awards in two Topic Areas.

(1) Regional Onsite Energy TAPs will fund up to 10 entities to serve as regional Onsite Energy TAPs. Each TAP will represent a multi-state region and serve as the primary technical, market, and policy point of contact for end-users and other state and local stakeholders that engage with the Onsite Energy TAP Program.

(2) Onsite Energy Technical Analysis and Support Center (TASC), will fund one (1) national entity to serve in the role of Onsite Energy Technical Analysis and Support Center. The TASC will centrally coordinate technical analysis and programmatic activities of the Onsite Energy TAP Program. The TASC will serve as the liaison between the regional Onsite Energy TAPs, the IEDO Program Manager, and national lab experts supporting this program.

Informational webinar is scheduled for February 22nd at 1pm ET - please check the EERE Exchange for details.

[Download the FOA](#)

17. [\*\*\\$16M Funding Opportunity Announcement: Scientific Machine Learning for Complex Systems\*\*](#)

DE-FOA-0002958

Mandatory Pre-Application Due: 3/1/2023 | 5PM ET

Application Due: 4/12/2023 | 11:59 PM ET

The focus of this funding opportunity announcement is on basic research and development at the intersection of uncertainty quantification (UQ) and scientific machine learning (SciML) applied to the modeling and simulation of complex systems and processes.

Scientific computing within DOE traditionally has been dominated by complex, resource-intensive numerical simulations. However, the rise of data-driven SciML models and algorithms provides new opportunities. Traditional scientific computing forward simulations often are referred to as "inner loop" modeling. The combination of traditional scientific computing expertise and machine learning-based adaptivity and acceleration has the potential to increase the performance and throughput of inner-loop modeling. Such hybrid modeling and simulation approaches offer the opportunity, for example, to combine the versatility of neural networks for function and operator approximations, the domain-knowledge and interpretability of differential equations and operators, and the robustness of high-performance scientific computing software across these areas. Relevant domains of application include materials, environmental, and life sciences; high-energy, nuclear and plasma physics, and the DOE Energy Earthshots Initiative, for example. While it is anticipated that proposed projects will focus on specific complex systems, the applied mathematics research advances must have more general applicability.

Please see the funding opportunity for agency contacts and more details, including eligibility and application information.

[Download the FOA](#)

18. [\*\*\\$47M Hydrogen and Fuel Cell Technologies Office Funding Announcement in Support of Hydrogen Shot\*\*](#)

DE-FOA-0002920

Pre-proposal Due: 2/24/2023 | 5pm ET

Application Due: 4/28/2023 | 5pm ET

The Office of Energy Efficiency and Renewable Energy (EERE) is issuing Funding Opportunity Announcement DE-FOA-0002920 on behalf of the Hydrogen and Fuel Cell Technologies Office (HFTO), which coordinates hydrogen activities with offices across DOE as described in the DOE Hydrogen Program Plan. These activities align with the DOE National Clean Hydrogen Strategy and Roadmap and specific DOE initiatives.

The research, development and demonstration (RD&D) activities to be funded under this FOA will support the government-wide approach to the climate crisis by driving the innovation that can lead to the deployment of clean energy technologies, which are critical for climate protection. Specifically, this FOA will support the goals of the H2@Scale Initiative, which aims to advance affordable hydrogen production, transport, storage, and utilization to enable decarbonization and revenue opportunities across multiple sectors. These objectives align with DOE's Hydrogen Shot, which targets affordable clean hydrogen production at \$1/kg within the decade. Advancing technologies that will facilitate the adoption of clean hydrogen technologies will support the goal of net zero GHG emissions by 2050.

[Download the FOA](#)

19. [Funding Opportunity Announced through Collaboration Between NSF and DOE](#)

NSF 22-549

Info Webinar: 1/25/2023 | 2PM EST

Application Due: 4/18/2023 | 11:59 PM ET

The U.S. Department of Energy (DOE) Bioenergy Technologies Office (BETO) and the National Science Foundation (NSF) announced a collaborative funding opportunity, "Accelerating Innovations in Biomanufacturing Approaches through Collaboration Between NSF and the DOE BETO-funded Agile BioFoundry (NSF-DOE/ABF Collaboration)."

To help advance the U.S. production of bioproducts, this funding opportunity will provide support for synthetic and engineering biology research projects that further Agile BioFoundry's (ABF's) mission of collaborating with industry and academia to create a strong bioeconomy and reduce America's dependence on fossil fuels.

Areas of particular interest include:

Expansion of the range of host organisms amenable to the tools of synthetic and engineering biology

Development of novel biotechnology approaches to mitigate climate change,

Projects that advance a circular bioeconomy, and

Development of affordable, bio-based, sustainable aviation fuel or other products of interest to NSF and BETO that can demonstrate significant climate change mitigation and/or greenhouse gas reductions over a petroleum baseline.

Prior to submission, applicants are required to request a feasibility review of the project for which ABF collaboration is desired. Once a project has been deemed feasible by the ABF, applicants will coordinate with ABF investigators and refine scope and budget details. For full details on submission instructions, solicitation requirements, and contact information, see NSF 22-549.

A webinar will be co-hosted by the NSF, BETO, and ABF, on Wednesday January 25, 2023. The webinar will describe the objectives of this funding opportunity, discuss key considerations as spelled out in the solicitation, lay out steps for application submission, and establish deadlines. Register today to learn more about this funding opportunity.

[Download the FOA](#) || [Webinar Registration Link](#)

20. [DOE Funding Opportunity - Water Research and Development for Oil and Gas Produced Water and Coal Combustion Residuals Wastewater Associated with Coal Power Plants](#)

DE-FOA-0002796

Application Due: 4/12/2023 | 11:59 PM

The U.S. Department of Energy's (DOE) Office of Fossil Energy and Carbon Management (FECM) today announced \$17.5 million in available funding for research and development projects that focus on the characterization, treatment, and management of produced water—or wastewater associated with oil and natural gas development and production—as well as management of legacy wastewater associated with coal-based thermal electric power generation facilities, primarily coal combustion residuals waste streams. Such projects will help lower the cost of developing and demonstrating technologies to manage wastewater safely and effectively for beneficial end-uses—such as irrigation of non-edible crops, hydrogen generation, and aquifer recharge and recovery—while supporting DOE's goals to provide environmental and economic benefits to our communities that have been affected by stressed water resources and legacy pollution. These same

energy production waste streams also contain recoverable critical minerals, including rare earth elements, that are essential to manufacturing clean energy technologies like solar panels, wind turbines, and hydrogen fuel cells.

### [FedConnect Link](#)

#### 21. [NSF Funding Opportunity - New Accelerating Research Translation Solicitation](#)

Proposals Due: 5/9/2023 | 5PM local time

The National Science Foundation's (NSF) Directorate for Technology, Innovation and Partnerships (TIP) announced a new foundation-wide solicitation for the Accelerating Research Translation (ART) program, which was authorized by the CHIPS and Science Act of 2022. The ART program aims to support projects that will increase the role of U.S. institutions of higher education in their region's innovation ecosystems through building their capacity and strengthening their infrastructure for translational research and supporting translational research training for graduate students and postdocs. For this competition, NSF recognizes "translational research" as converting research into practical applications that can be deployed at scale, including knowledge/technology transfer, commercialization, or transition to practice, resulting in tangible economic and/or societal benefits.

Submissions to the ART solicitation must address how an institution would:

- "Develop institutional capacity and infrastructure for translational research activities in the short term (during the four-year duration of the award) and long term (beyond the duration of the award);
- Create and continually train new cohorts of graduate students and postdoctoral researchers versed in translational research to successfully create economic and/or societal impact through various career pathways, e.g., as entrepreneurs, in industry or public sectors; and
- Support a nationwide network of 'ART Ambassadors' who will be the agents of change within their institutions and region to support equal importance for translational research and its ensuing impact.

Proposals are due May 9, 2023. Beginning in 2024, solicitations will be due the third Wednesday in September. An informational [webinar](#) will be held Tuesday, February 21, 2023, from 2:00-3:00 PM EST.

### [Read the FOA](#)

#### 22. [NSF-23-557 - Use-Inspired Research Addressing Global Challenges in Climate Change and Clean Energy](#)

Full Proposals Due: April 12 2023 - May 10, 2023 (Track 2 GC Design) | 5PM local time  
May 10 2023 (Track 1 GC Implementation) | 5PM local time

This National Science Foundation (NSF) solicitation launches an ambitious new program to fund international, interdisciplinary collaborative research centers that will apply best practices of broadening participation and community engagement to develop use-inspired research on climate change and clean energy. This program will prioritize research collaborations fostering team science, community-engaged research, and use knowledge-to-action frameworks. The proposed research work should maximize the benefits of international, interdisciplinary collaborations.

Climate change is a global threat that impacts the natural and human world through changes in regional weather patterns, acceleration of species extinctions, alteration of the structure and function of ecosystems as well as by affecting human societies, the built environment, and processes in urban and rural areas around the globe. Given the complexity of the problem and the cascading nature of impacts, climate change demands convergent, interdisciplinary research collaborations that bring together studies of any number of topics such as greenhouse gas emissions, atmospheric and oceanic circulation drivers, impacts of natural and built environment, human behavior, and policy constraints, coupled with innovative artificial intelligence (AI), computational and data science solutions, to help assess or mitigate community impacts and/or lead to technology developments.

More information on global centers solicitation is available on this NSF [webpage](#).

### [Read the FOA](#)

**23. Clean Energy Technology Deployment on Tribal Lands – 2023 Department of Energy Golden Field Office**

DE-FOA-0002975

Full Application Submission Deadline: 5/16/2023 5 PM ET

The DOE Office of Indian Energy is soliciting applications from Indian Tribes, which include Alaska Native Regional Corporations and Village Corporations, Intertribal Organizations, and Tribal Energy Development Organizations to: (1) Install clean energy generating system(s) and energy efficiency measure(s) for Tribal Building(s) (Topic Area 1); or, (2) Deploy community-scale clean energy generating system(s) or energy storage on Tribal Lands (Topic Area 2); or, (3) Install integrated energy system(s) for autonomous operation (independent of the traditional centralized electric power grid) to power a single or multiple Essential Tribal Buildings during emergency situations or for tribal community resilience (Topic Area 3); or, (4) Provide electric power to unelectrified tribal buildings (Topic Area 4). The DOE Office of Indian Energy will award multiple financial assistance awards in the form of grants. The estimated period of performance for each award will be approximately from two (2) to four (4) years, including a 12-month mandatory verification period. Under the FOA, DOE's Office of Indian Energy anticipates making awards that range from \$100,000 to \$2,500,000 or from \$250,000 to \$5,000,000, depending on the Topic Area. DOE will accept only new applications under this FOA. DOE will not consider applications for renewals or continuations of existing DOE funded awards through this FOA.

Register for the webinar here: <https://attendee.gotowebinar.com/register/1231563403323963990>

[Download the FOA](#)

**24. DOE Energy Earthshot Research Centers**

LAB 23-2954

Pre-Applications Due (required): 3/7/2023, 5 PM ET

Full Applications Due: 5/31/2023, 5 PM ET

On January 23rd, the U.S. Department of Energy (DOE) announced \$200 million for Energy Earthshot Research Centers (EERCs). This funding, provided by the Office of Science, will support fundamental research to accelerate breakthroughs in support of the Energy Earthshots Initiative.

Six Energy Earthshots have been announced so far: Hydrogen Shot™, Long Duration Storage Shot™, Carbon Negative Shot™, Enhanced Geothermal Shot™, Floating Offshore Wind Shot™, and Industrial Heat Shot™.

The EERCs supported by this funding opportunity will bring together multi-investigator, multi-disciplinary teams to address key basic research challenges for the six Energy Earthshots, with each application and award focused on one of the Energy Earthshots. The scientific knowledge gained should impact research and development efforts currently of interest to the Department's energy technology offices.

[Download the FOA](#)

**25. Enhanced Geothermal System (EGS) Pilot Demonstrations FOA**

DE-FOA-0002826

Mandatory Pre-Application Due: 3/8/2023 | 5 PM ET

Application Due: 6/16/2023 | 5 PM ET

The Department of Energy's (DOE's) Geothermal Technologies Office's (GTO) 2022 Enhanced Geothermal Shot™ analysis concludes that with aggressive technology improvements, in areas relevant to enhanced geothermal systems (EGS), geothermal power generation could provide 90 gigawatts-electric (GWe) firm, flexible power to the U.S. grid by 2050.

Relative to other geothermal resources, EGS have the potential to provide the most growth in the electric sector, and in the GeoVision scenarios, support noteworthy growth within the non-electric sector for district heating and other direct-use applications. This potential expands if superhot EGS resources (>375°C) are accounted for. Without significant and sustained investment in EGS technology development and demonstrations to refine our ability to access and develop these resources, however, the 90 GWe target will not be achieved.

The Topic Areas addressed under this FOA are:

Topic Area 1: EGS Proximal Demonstrations: EGS demonstrations utilizing existing infrastructure proximal to existing geothermal / hydrothermal development with immediate potential for electrical power production.

Topic Area 2: EGS Green Field Demonstrations: Sites with no existing geothermal development and potential for shallow sedimentary, igneous and/or mixed metamorphic rock EGS with near-term electrical power production potential.

Topic Area 3: Super-hot / Supercritical EGS Demonstrations: Super-hot/ supercritical EGS demonstrations located at well-characterized sites with existing well(s) in place and with near-term electrical power production potential.

You can download the presentation from a webinar conducted on the FOA on February 9, 2023.

[Download the FOA](#)

26. [\*\*\\$125M DOE Funding for Energy Innovation Hub Program: Research to Enable Next-Generation Batteries and Energy Storage\*\*](#)

DE-FOA-0002923

Info Webinar: 2/8/2023 | 3 PM ET

Pre-Application Due: 03/09/2023 | 5 PM ET

Application Due: 5/18/2023 | 11:59 PM ET

The U.S. Department of Energy (DOE) announced \$125 million for basic research on rechargeable batteries to provide foundational knowledge needed to transform and decarbonize our energy system through the development and adoption of cost-effective and clean energy sources. The national, economic, and environmental security challenges will not be met solely by incremental improvements to existing clean energy technologies but instead will require transformational technologies founded on new fundamental knowledge and capabilities developed through basic scientific research.

This FOA will support new awards in the Batteries and Energy Storage Energy Innovation Hub program to advance fundamental knowledge for the next generation of rechargeable batteries and related electrochemical energy storage beyond today's commercialized batteries. Proposed efforts should assemble large teams to conduct coordinated, collaborative, synergistic, and highly interdisciplinary fundamental research to tackle scientific challenges for the next generation of batteries. Proposed research should address the highest scientific priorities in this area, build on advances and accomplishments in the published literature, and represent a world-leading scientific program when compared to relevant international research efforts. To strengthen the commitment to promoting a diversity of investigators and institutions supported by the DOE Office of Science, applications are explicitly encouraged that are led by or involve Minority Serving Institutions (MSIs), including Historically Black Colleges and Universities (HBCUs).

Applications are open to all accredited U.S. colleges and universities, national laboratories, nonprofits, and private sector companies. Total planned funding is up to \$125 million over four years.

[Download the FOA](#)

27. [\*\*\\$25.5M Funding - Reducing Agricultural Carbon Intensity and Protecting Algal Crops \(RACIPAC\)\*\*](#)

DE-FOA-0002910

Mandatory Pre-Application Due: 3/20/2023 | 5 PM ET

Application Due: 5/16/2023 | 5 PM ET

The Bioenergy Technologies Office's (BETO's) Renewable Carbon Resources (RCR) program develops science-based strategies and technologies to cost-effectively transform renewable carbon resources such as agricultural waste and algae into high-quality, environmentally sustainable, conversion-ready feedstocks for biofuels and bioproducts. This funding opportunity announcement (FOA), through two distinct topic areas – the first focused on climate-smart agricultural practices and the second on algae crop protection – supports BETO's RCR Program's strategies for the development of conversion-ready feedstocks for biofuels and

bioproducts and supports the Biden Administration's goal to produce sustainable aviation fuels.

Climate-smart agricultural practices, such as conservation tillage, cover crops, nutrient management, and soil amendments (e.g., biochar applications), are promising approaches to reduce carbon intensity and improve sustainable production of biomass resources. Topic Area 1 projects will assess the efficacy of climate-smart agricultural practices that reduce the carbon intensity (CI) of biomass feedstocks for biofuels. Implementation of climate-smart agricultural practices is essential to produce low CI feedstocks, particularly from agricultural residues to enable sustainable aviation fuel production with lower greenhouse gas emissions. Topic Area 1, Climate-Smart Agricultural Practices for Low Carbon Intensity Feedstocks, has two subtopic areas:

Subtopic Area 1a: Climate-Smart Agricultural Practices to Produce Low CI Feedstocks Derived from Agricultural Residues, and

Subtopic Area 1b: Biochar Strategies to Increase Soil Carbon Levels and Agronomic Benefits of Crops for Energy Production

[Download the FOA](#)

28. [DOE \\$30M Funding Opportunity for Large Wind Turbine Materials and Manufacturing](#)

DE-FOA-0002960

Concept Paper Due: 3/23/2023 | 5 PM ET

Application Due: 5/9/2023 | 5 PM ET

This Funding Opportunity Announcement (FOA) is being issued by the Office of Energy Efficiency and Renewable Energy (EERE) on behalf of the Advanced Materials and Manufacturing Technologies Office (AMMTO). The goals of this FOA are to:

Further develop broad, foundational, manufacturing "platform" technologies and address gaps and barriers that are currently limiting use of composite materials in clean energy and decarbonization-related applications with wind energy applications as the primary FOA focus;

Enable additive manufacturing processes for rapid prototyping, tooling, fabrication, and testing of large wind blades;

Apply additive manufacturing to non-blade wind turbine components; and

Mature nascent technologies, processes, and methods that improve one or more aspects of advanced composites manufacturing, including automation, and sustainability (including recycling) of these materials.

Please see the funding opportunity for agency contacts and more details, including eligibility and application information.

[Download the FOA](#)

29. [DOE Funding Opportunity Announcement - "Open Call"](#)

Deadline: Open until replaced by next fiscal year's call, 9/30/2023

The U.S. Department of Energy (DOE) provides up to \$400 million in funding for a range of research opportunities to support DOE's clean energy, economic, and national security goals. The funding will advance the priorities of DOE's Office of Science and its major programs, including Advanced Scientific Computing Research, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, High Energy Physics, Nuclear Physics, Isotope R&D and Production and Accelerator R&D and Production.

The DOE Funding Opportunity Announcement (FOA), informally known as the "Open Call," is issued annually at the beginning of each Fiscal Year (FY). It provides a vehicle for the Office of Science to solicit applications for research support in areas not covered by more specific, topical FOAs that are issued by the office over the course of the Fiscal Year.

[Read the FOA](#)

30. [COVID-19 Research at the Spallation Neutron Source and High Flux Isotope Reactor](#)

Deadline: Ongoing – Resource available for research until further notice.

With the continuing spread of the COVID-19 pandemic, the Department of Energy Basic Energy Sciences neutron sources will provide remote rapid access to support research into the COVID-19 virus and the search for effective diagnostics and therapies. Researchers who would like to use neutron scattering

resources for COVID-19 research may submit a rapid access proposal [here](#).

**31. [COVID-19 Research Questions](#)**

**Deadline: Ongoing – Open until further notice.**

The Department of Energy (DOE) is taking steps to address COVID-19 and is soliciting ideas about how the Department and the National Laboratories might contribute resources for science and technology efforts and collaborations. The Department is encouraging the scientific community and others to consider research questions that underpin COVID-19 response and is requesting input on strategic, priority research directions that may be undertaken using DOE user facilities, computational resources, and enabling infrastructure. More information is available [here](#).

**32. [Solar Energy Innovators Program Opportunity](#)**

**Deadline: Rolling - Pending applications reviewed 1st of each month.**

The purpose of the Solar Energy Innovators Program is to enable selected applicants to conduct practical research on innovative solutions to the challenges faced by electric utilities, energy service providers, and electric public utility commissions as the levels of solar energy, as well as other distributed energy resources (DERs), increase on the electrical grid.

Selected applicants will participate for up to two years at a Host Institution on one or more topics related to the integration of solar energy. The applicant must identify a Host Institution and potential mentor at a utility, energy service provider, or public utilities commission (PUC) currently conducting research in an area related to the integration of solar energy onto the electricity grid. Host Institutions may seek potential Innovators that are eligible to apply to the program, but it is the potential Innovator, not the Host Institution or mentor, who submits the application and supporting materials to this site.

For more information, and to apply, [click here](#).

**33. [Events Sponsorship Program: Grants up to \\$4,000 Available to ORAU Consortium Member Universities](#)**

**Deadline: Ongoing**

**Applications for events occurring between October 1 and March 31 must be received by September 1.**

**Applications for events occurring between April 1 and September 30 must be received by March 1.**

Event or conference sponsorship is often beneficial to our Council of Sponsoring Institution Members, whether as a means of fostering collaboration among Council members, gaining new and important information for a proposal or business plan, and more. To help make these event opportunities possible, ORAU's University Partnerships Office offers an Events Sponsorship Program to member institutions. Each member university is limited to one award per fiscal year (October through September). Up to \$4,000 may be requested to support an event that involves participants from more than one ORAU member institution, including students. Examples of such events include visits to an ORAU consortium member by a renowned speaker, conferences or workshops with a focused theme, or a technology transfer/business plan competition. For more information, please go [here](#).

**34. [ADL Ventures and National Renewable Energy Lab Competition](#)**

**Deadline: Ongoing**

ADL Ventures is working with the National Renewable Energy Lab (NREL) as a Power Connector for the American-Made Solar Prize, a \$3 million prize competition for researchers, innovators and entrepreneurs working on solar technologies. Winners of the competition can receive up to \$500K in non-dilutive funding in addition to in-kind support from the National Labs. To date, 60 winners from 23 different states have been selected over 3 rounds for a total of \$9M in funding. In addition to the publicity and resources associated with selection by DOE / NREL, the winners benefit from a much more streamlined funding process versus traditional collaborative awards and grants, allowing them to hit the ground running quickly, with minimal restrictions. More information about the prize can be found on our ProblemSpace platform or from the NREL Solar Prize information webinar on August 19th. For more information, please go [here](#).