Funding Opportunities as of November 16, 2022

Opportunities Listed by Deadlines

1. **Pumped Storage Hydropower Wind and Solar Integration and System Reliability Initiative**
   - Letter of Intent Due: 11/17/22
   - Full Proposals Due: 12/15/22
   The Office of Energy Efficiency and Renewable Energy (EERE) is issuing, on behalf of the Water Power Technologies Office (WPTO), this Funding Opportunity Announcement (FOA) titled “Bipartisan Infrastructure Law Section 40334: Pumped Storage Hydropower Wind and Solar Integration and System Reliability Initiative.” Awards made under this FOA will be funded, in whole or in part, with funds appropriated by the Infrastructure Investment and Jobs Act, more commonly known as the Bipartisan Infrastructure Law (BIL). Through this FOA, DOE will invest $10 million to carry out project design, transmission studies, power market assessments, and permitting for a pumped storage hydropower (PSH) project to facilitate the long-duration storage of intermittent renewable electricity. Eligibility for this FOA is limited to projects that have received a FERC preliminary permit, and are working toward licensing a PSH project with at least 1000 MW capacity that can participate in multiple markets and store intermittent renewable energy generated on tribal lands.
   - [Download FOA](#)

2. **DOE/ASCR Funding to Seed Collaborations for Software Sustainability**
   - Pre-Proposal Due: 11/21/2022
   - Full Application Due: 12/19/2022
   Advanced Scientific Computing Research (ASCR) program is seeking proposals on the maintenance and improvement of the software ecosystem for high-performance and scientific computing, including the software ecosystem developed through the Exascale Computing Project (ECP), in order that the full potential of the current and future computing systems deployed by DOE can be continuously realized. The software ecosystem provides shared software packages, novel evaluation systems, and applications relevant to the science and engineering requirements of DOE.
   ASCR expects to convene a merit-review panel in January 2023 for proposals submitted in this area. ASCR seeks to seed collaborations focused on software sustainability, and proposals should articulate a long-term vision for sustaining a substantial part of the ecosystem of software for scientific and high-performance computing and should describe how their efforts might be rapidly scaled up in the future.
   - [Read the FOA](#)

3. **$156 M for Rare Earth Element Demonstration Facility**
   - Applications Due: 11/21/2022, 8 PM ET
   The BIL will invest appropriations of $156 million for the design, construction, and operation of a Rare Earth Element
(REE) Demonstration Facility that demonstrates the extraction, separation and refining from unconventional feedstock materials to high purity individual or binary rare earth metals (REM) and/or critical minerals and materials (CMM).

This effort focuses on rebuilding the U.S. leadership role in the economically viable, environmentally benign extraction, separation, and processing technologies arena. This supports the generation of sustainable U.S. domestic supply chains for onshore production of REEs and CMM for commercial commodities, clean energy, and national defense industries, and are in support of the Administration’s goals of decarbonizing the electricity sector by 2035 and the economy by 2050. This facility will also provide environmental benefits using feedstocks derived from acid mine drainage, mine wastes, or other deleterious materials. The FOA will require projects to track and report on project results related to environmental impacts, environmental justice, community engagement, and consent-based siting, equity, and workforce development.

4. **Carbon Capture Technology Program, Front-end Engineering and Design For Carbon Dioxide Transport**
   **Full Application Due: 11/28/2022, 5 PM ET**
   This FOA will fund Front-End Engineering and Design (FEED) studies that support and accelerate the planning for CO2 transport by a variety of modes. Due to the immediate need for CO2 transport servicing multiple points of capture and one or more points of storage, the first round of solicited applications will prioritize CO2 pipeline projects with two or more carbon capture sources connected to one or more secure geologic storage locations and/or to one or more CO2 conversion locations. The CO2 must be derived only from anthropogenic sources which could include CO2 derived by direct capture from ambient air and must be delivered to CO2 conversion sites or secure geologic storage facilities.

5. **Two Funding Calls from DOE Office of Nuclear Energy - Fiscal Year 2023 Consolidated Innovative Nuclear Research**
   **DE-FOA-0002733 - Application Due: 11/29/2022**
   The Department of Energy’s (DOE) Office of Nuclear Energy (NE) provides funding to support crosscutting nuclear energy research and development (R&D) and associated infrastructure support activities to develop innovative technologies that offer the promise of dramatically improved performance for advanced reactors and fuel cycle concepts, while maximizing the use of DOE resources and the sustainability of the existing light water reactor fleet.

   The development of nuclear energy-related infrastructure and basic capabilities in the research community is necessary to promote R&D that supports nuclear science and engineering (NS&E), DOE-NE’s mission, and the Nation’s nuclear energy challenges. Accordingly, DOE intends to facilitate the education and training of nuclear scientists, engineers, and policy-makers through graduate and undergraduate study, two-year programs, and R&D that is relevant to the Department and the U.S. nuclear energy industry in general.

   The Nuclear Energy University Program (NEUP) supports university-based infrastructure and R&D in key NE program-related areas:
   - Fuels Cycle Research and Development (FC R&D)
   - Reactor Concepts Research, Development and Demonstration (RC RD&D)
   - Nuclear Energy Advanced Modeling and Simulation (NEAMS)

   The infrastructure support requested should be individual, discrete, and definable items or capabilities that will:
   - Support, maintain, or enhance the institution’s capacities to attract and teach high quality students interested in nuclear energy-related studies
   - Build the institution’s research or education capabilities
   - Enhance the institution’s capabilities to perform R&D that is relevant to DOE-NE’s mission

   The request should focus on a single, synergistic goal, or capability. Applicant must demonstrate the educational or R&D connection between requested pieces of equipment. Applications made of several uncorrelated equipment requests are not of interest. A request should not duplicate existing capabilities.

   **DE-FOA-0002732 - Application Due: 2/8/2023**
   The mission of the Department of Energy (DOE), Office of Nuclear Energy (NE) is to advance U.S. nuclear power to meet the nation’s energy needs by:
Collectively, all NE-sponsored activities support the Department’s priorities to combat the climate crisis, create clean energy jobs with the free and fair chance to join a union and bargain collectively, and promote equity and environmental justice by delivering innovative clean energy technologies for nuclear energy systems. All applications submitted under this CINR FOA must demonstrate a strong tie to at least one of these three mission priorities and highlight how it supports the DOE priorities.

**More Information**

6. **DOE - $30M to Remove Carbon Dioxide from the Air and Oceans and Convert it to Valuable Products**

   **Full Applications Due:** 11/30/2022 / 8 PM ET

   The U.S. Department of Energy’s (DOE) Office of Fossil Energy and Carbon Management (FECM) announced up to $30 million in funding for research and development (R&D) projects to advance carbon dioxide removal (CDR) approaches that will reduce carbon dioxide (CO2) pollution by capturing it directly from both the atmosphere and oceans and converting it into valuable products such as fuels and chemicals. Funding Opportunity Announcement DE-FOA-0002614 is being re-opened to solicit applications for new areas of interest:

   - **AOI-2F.** Carbon Dioxide Removal Research and Development (R&D): Field Validation of Abiotic Ocean-Based Carbon Removal
   - **AOI-2G.** Carbon Dioxide Removal R&D: Integrated Carbon-Neutral Methanol Synthesis from Direct Air Capture and Carbon-Free Hydrogen Production

   **FedConnect Link to Amended FOA**

7. **$10M from DOE, Research Opportunities in Environmental System Science**

   **Pre-Application Due:** 12/1/2022
   **Full Application Due:** 2/23/2023

   The Department of Energy (DOE) Office of Science, Biological and Environmental Research (BER) program hereby announces its interest in receiving applications for research in Environmental System Science (ESS). The goal of the ESS program in BER is to advance an integrated, robust, and scale-aware predictive understanding of terrestrial systems and their interdependent microbial, biogeochemical, ecological, hydrological, and physical processes. To support this goal, the program uses a systems approach to develop an integrative framework to elucidate the complex processes and controls on the structure, function, feedbacks, and dynamics of terrestrial systems that span from molecular to global scales, and extend from the bedrock through the soil, rhizosphere, and vegetation to the atmosphere. The ESS program scope advances foundational process knowledge with an emphasis on understudied ecosystems.

   This FOA will consider applications that focus on measurements, experiments, field data, modeling, and synthesis to provide improved understanding and representation of ecosystems and watersheds in ways that advance the sophistication and capabilities of models that span from individual processes to Earth-system 2 scales. This FOA will encompass three Science Research Areas: 1) improved understanding of hot spots and hot moments of biogeochemical cycling in terrestrial-aquatic interfaces; 2) investigations of cold-region ecosystem and watershed process responses to changing cold-season climate drivers; and 3) synthesis studies using existing data that address testing of ESS-relevant hypotheses and development of transferable insights across ecosystems, watersheds, and regions.

   **Read the FOA**

8. **$14.5 M for Innovative Technologies to Enable Low Impact Hydropower and Pumped Storage Hydropower Growth**

   **Concept Papers Due:** 12/1/22
   **Full Applications Due:** 3/5/23

   This FOA seeks applications to address innovative solutions to retrofit non-powered dams with environmentally sustainable hydropower at a reasonable cost; applications to address development and testing technologies that mitigate challenges to pumped storage hydropower deployment, including market and revenue uncertainty,
development costs and financing, long development timelines, permitting challenges, construction risks, and environmental impacts; and applications to address and encourage emerging organizations to support hydropower development. WPTO expects the amount of funding available for projects under this FOA will be approximately $14.5 million and cover the following topic areas:

1. Hydropower Retrofits for Non-Powered Dams;
2. Innovative Pumped Storage Hydropower Technologies; and
3. Hydropower R&D by Emerging Organizations.

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9. **Advancing Fish Passage and Protection Technologies**  
   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

10. **$15M from DOE for Atmospheric System Research**  
    Pre-Application Due: 12/8/2022  
    Full Application Due: 2/23/2023  
    The Department of Energy (DOE) Office of Science, Biological and Environmental Research (BER) program hereby announces its interest in receiving applications for Atmospheric System Research (ASR) within BER’s Earth and Environmental Systems Sciences Division (EESSD). ASR supports research on key cloud, aerosol, precipitation, and radiative transfer processes that affect the Earth’s radiative balance and hydrological cycle, especially processes that limit the predictive ability of regional and global models. This FOA solicits research grant applications for observational, data analysis, and/or modeling studies that use observations supported by BER, including the Atmospheric Radiation Measurement (ARM) user facility, to improve understanding and model representation of: 1) Cloud, aerosol, precipitation, and thermodynamic processes from ARM’s Tracking Aerosol Convection Interactions Experiment (TRACER); 2) Cloud, aerosol, precipitation, and radiation processes from ARM’s Surface Atmosphere Integrated Field Laboratory (SAIL); 3) Warm boundary layer atmospheric processes; and 4) Southeast U.S. atmospheric processes through early use of observations from the third ARM Mobile Facility (AMF3). All research supported by awards under this FOA is intended to benefit the public through increasing our understanding of the Earth system.

Read the FOA

11. **$12M from DOE - Research Opportunities in Lithium Extraction and Conversion from Geothermal Brines**  
    Pre-Application Due: 12/9/2022  
    Full Application Due: 1/31/2023  

    Advanced Materials and Manufacturing Technologies Office (AMMTO) and Geothermal Technologies Office (GTO) are jointly issuing a funding opportunity announcement of Lithium Extraction and Conversion from Geothermal Brines. This funding opportunity will spur the development of domestic lithium supply and refinement capacity to secure America’s clean energy supply chains and increase U.S. manufacturing competitiveness abroad. The estimated period of performance for the award will be three years.

    Topic Areas:  
    (1) Field Validation of Lithium Hydroxide Production from Geothermal Brines  

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12. **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**  

13. **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**  

14. **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](#).  

15. **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](#).  

16. **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.

17. **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.

18. **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 price can be found on our ProblemSpace platform or from the NREL Solar Prize information webinar on August 19th. For more information, please go here.