

Department of Energy Funding and Engagement Opportunities

The Department of Energy (DOE) released additional funding opportunities, including the Office of Science open call, university-based regional electric power cybersecurity research and development centers, technology innovations to increase hydropower flexibility, bat-wind turbine interactions, and a new Inclusive Energy Innovation Prize. DOE is now accepting applications for its lab embedded entrepreneurship program. DOE is also accepting applications for students interested in Office of Science STEM fields; carbon capture, utilization and sequestration; and building sciences, and will start accepting applications for the Collegiate Wind Competition in March 2022. As reported previously, DOE is also seeking feedback from stakeholders to help shape research priorities and funding opportunities in biological and environmental research.

New Funding Opportunities

- \$400 million for the [Office of Science Open Call](#): The call is open October 1, 2021 through September 30, 2022
 - This annual funding call allows the Office of Science to solicit applications for research in areas not covered by more specific, topical funding opportunity announcements that are issued throughout the fiscal year.
 - All Office of Science programs participate and list areas of interest 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.
 - Awards range from \$200,000 to \$5 million in annual funding over three to five years.
 - DOE usually makes about 300 new awards each year, in addition to renewing prior funding awards.
- \$10 million for [University-Based Regional Electric Power Cybersecurity Research and Development Centers](#): Concept papers due October 13
 - The centers will address research and development challenges related to cybersecurity and critical energy infrastructure, and will take into consideration the distinctive characteristics of each region's electricity system, network infrastructure, and workforce expertise.
 - DOE expects to make four awards of \$2.5 million for each center over two years.
 - Each center is expected to provide a \$1 million or 29 percent cost share to match federal funding for a total center award of \$3.5 million.
- \$8.5 million for [Technology Innovation to Increase Hydropower Flexibility](#): Concept papers due November 2
 - The focus is on developing and testing next-generation technologies to improve the flexible capabilities of the U.S. hydropower fleet.
 - This includes technologies that can increase the flexibility of hydropower units by expanding operating range, faster ramping and start-stops, and improved frequency and voltage control. Also of interest are innovations to reduce the negative impacts, such as accelerated machine wear-and-tear, associated with operating the unit more flexibly.
 - This will be funded through DOE's Water Power Technologies Office as part of the [HydroWIRES Initiative](#), which seeks to improve hydropower and pumped storage hydropower's contributions to the reliability, resilience, and integration of the grid.
 - DOE plans to make between two and six awards ranging from \$1 million to \$4 million over three years.

- \$3 million for [Bat-Wind Turbine Interactions and Deterrents](#): Applications due December 8
 - DOE's Wind Technologies Office is seeking research proposals that examine how bats behave near wind turbines and how they respond to tools intended to keep bats away from turbines.
 - DOE plans to make up to four awards ranging from \$450,000 to \$700,000 over two years. Cost sharing of between 20 percent and 30 percent required for each topic area.
- \$2.5 million for the [Inclusive Energy Innovation Prize](#): Applications due February 25, 2022
 - DOE plans to award cash prizes to groups and organizations, including university-based programs, that support entrepreneurship and innovation in communities historically underserved in climate and energy technology funding.
 - Up to 10 organizations would share a total prize pool of \$2.5 million.
 - Some focus areas include:
 - Clean energy and climate innovation with entrepreneurship programming and capabilities at colleges and universities that serve large populations of students underrepresented in STEM, Minority Serving Institutions, community colleges, and undergraduate institutions.
 - Identify and fund activities that will help disadvantaged communities become aware of, apply, or secure DOE funding or other federal, state, local government, or private funding in support of Justice40 goals.
- [Lab Embedded Entrepreneurship Program](#): 2022 Cohort applications now open
 - Entrepreneurial scientists and engineers are selected to help them commercialize clean energy technologies by embedding them with experts at DOE national laboratories and providing them access to unique tools and capabilities.
 - DOE is holding webinars for each of the three program sites that host entrepreneurial fellows:
 - [Chain Reaction Innovations](#) at Argonne National Laboratory: [Register to attend](#) one of four informational webinars. Applications open on September 21, 2021.
 - [Innovation Crossroads](#) at Oak Ridge National Laboratory: [Register to attend](#) one of four informational webinars. Applications open on September 21, 2021.
 - [Cyclotron Road](#) at Lawrence Berkeley National Laboratory: [Register to attend](#) one of six informational webinars. Applications open on October 15, 2021.

Ongoing Student Opportunities

- [Research Experience in Carbon Sequestration \(RECS\) program](#): Applications due October 15
 - This is an education and training program focused on carbon capture, utilization and sequestration (CCUS) which includes virtual CCUS site tours, live lectures, discussion, and group exercises.
 - Managed by the Office of Fossil Energy and Carbon Management, this year's program is scheduled for early December and will be a virtual, online program.
 - The program is open to Ph.D. or graduate students in geoscience, engineering, physics, climate science, science communications, and related business and social science fields.
 - Enrollment is competitive and limited to 25 participants who are required to commit to the full program.
 - Applicants must be U.S.-based.
- [Office of Science Graduate Student Research program](#): Applications due November 10
 - This program supports awards to U.S. graduate students to conduct part of their graduate thesis research at a DOE national laboratory or host site in collaboration with a DOE laboratory scientist.
 - The program is open to current Ph.D. students in qualified graduate programs at accredited U.S. academic institutions, who are conducting their graduate thesis in STEM fields relevant to the Office of Science.
 - DOE started accepting applications on September 22 and appointments will begin in Summer/Fall 2022.

- [Innovation in Buildings Graduate Research Fellowship \(IBUILD\)](#): Applications due by December 1
 - This program is open to Master's and Ph.D. students doing research in building sciences.
 - The focus of this year's solicitation is on students working on deployment and market barriers research as well as those conducting collaborative research to increase market adoption around building energy efficiency and building decarbonization technologies.
 - Fellows would receive financial awards to support research at their home institutions and participate in professional development activities that provide access to a network of mentors and potential internships with national laboratories or industry.
 - The Fellowship is renewable for up to 3 years.
- [Collegiate Wind Competition](#): March 2022
 - The competition allows multidisciplinary teams of undergraduate students to design, build, and test a prototype wind turbine; develop a site plan and cost-of-energy analysis for a wind farm; and conduct outreach to the wind industry, their local communities, and local media outlets.
 - DOE plans to start accepting applications in March 2022 for the 2022-2023 academic year.
 - DOE plans to invite qualifying teams in June 2022 to compete for the Fall 2022 semester.
 - DOE plans to select final teams in December 2022 to compete in the 2023 Collegiate Wind Competition at the American Clean Power Association's [CLEANPOWER Conference](#) in New Orleans, Louisiana, in May 2023.

Ongoing Engagement Opportunities

- [Request for Information on Assessing the National and International Standing of Biological and Environmental Research](#): Responses due October 31
 - DOE's Office of Science is seeking input on how to maintain U.S. competitiveness in comparison to other international efforts and grow research efforts of the Biological and Environmental Research (BER) program.
 - Specifically, DOE is seeking information on the status of current capabilities, partnerships, funding mechanisms, and workforce development in atmospheric science; earth and environmental system modeling; environmental science; bioenergy and bioproducts; plant and microbial genomics; data analytics and management; and scientific user facilities.
 - Responses will feed into recommendations the BER Advisory Committee (BERAC) is preparing for DOE that was [tasked](#) with assessing BER's standing in related research efforts nationally and internationally and to consider strategies that would increase BER's ability to conduct world-class science in core BER research areas. BERAC is expected to issue its final report and recommendations in Spring 2022.
 - BER is expected to receive significant funding increases during the Biden Administration since it is aligned with two major Administration priorities: climate science and biotechnology. The FY 2022 President's budget request proposed a 10 percent increase for BER.