RWFI E-NOTE MONTHLY

REGIONAL WORKFORCE INITIATIVE • MAY 2023

Welcome Message

Greetings NETL RWFI stakeholders,

This month's funding opportunity in focus is the *Bipartisan Infrastructure Law: Industrial Assessment Center Program* funding announcement from the Department of Energy. More information about the Industrial Assessment Centers can be found in the DOE STEM section of this E-note or by *clicking here*.

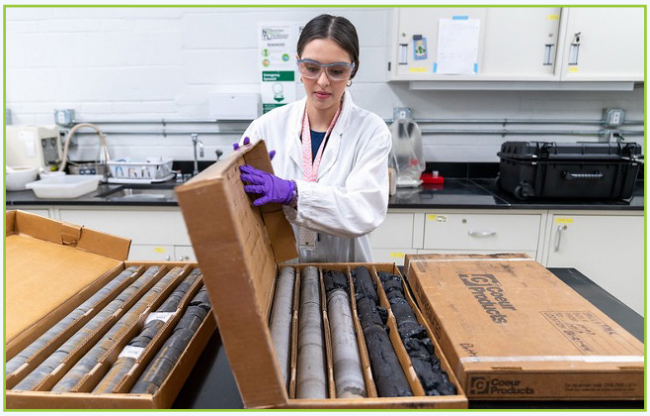
As always, feel free to reach out to us at *NETL.RWFI@netl.doe.gov* if you have any suggestions for information to present in future E-notes.

Attached to this email is a hyperlinked PDF version of this note. If you would like to unsubscribe, please reply "unsubscribe" to this email.

– Sincerely, The NETL RWFI Team

Workforce Funding Announcements

FUNDING SPOTLIGHT



Bipartisan Infrastructure Law (BIL): Industrial Assessment Center (IAC) Program – IACs at Trade Schools, Community Colleges, and Union Training Programs; and Building Training and Assessment Centers (BTAC) Program and Funding Opportunity Announcement (FOA) Description

Department of Energy, Deadline, July 31, 2023

The Office of Manufacturing and Energy Supply Chains (MESC) and Office of State and Community Energy Programs (SCEP) is issuing this FOA to establish new IACs at community colleges, trade schools, and union training programs, as well as to create new BTACs at institutions of higher education, including Tribal colleges and universities. The new IACs and BTACs that will be created with this funding will build upon the demonstrated success of applied learning environments and hands-on training approaches of existing IACs. The IACs also will draw on the unique strengths, geographic reach, and faculty/student composition of trade schools, community colleges, union training programs, and other institutions of higher education. The new IACs will focus on high-quality skilled trades job pathways in fields such as industrial electrician, energy management, renewable energy, and advanced manufacturing, while providing hands-on support to small and medium manufacturers. The new BTACs will expand these benefits to commercial and institutional buildings to help lower utility costs and allow companies to reinvest in businesses, employees, and community services. BTACs will train students and workers as engineers, architects, building scientists, building energy permitting and enforcement officials, and building technicians in energy-efficient design and operation.

Louis Stokes Alliances for Minority Participation (LSAMP) National Coordination Hub and Louis Stokes Community Resource Centers

National Science Foundation, Deadline, June 1, 2023

This new solicitation from the LSAMP calls for proposals for an LSAMP National Coordination Hub and for Louis Stokes Community Resource Centers. These new funding opportunities will support the overall goal of the LSAMP program to assist universities and colleges in diversifying the nation's STEM workforce by increasing the number of STEM baccalaureate and graduate degrees awarded to individuals from populations underrepresented in these disciplines: Blacks and African Americans, Alaska Natives, American Indians, Hispanic and Latino Americans, Native Hawaiians, and Native Pacific Islanders.

Tribal Colleges and Universities Program (TCUP)

National Science Foundation, Deadline, June 1, 2023

TCUP provides awards to federally recognized TCUs, Alaska Native-serving institutions, and Native Hawaiian-serving institutions to promote high quality science (including sociology, psychology, anthropology, linguistics, economics and bioeconomic, statistics, and other social and behavioral sciences; natural sciences; computer science, including, but not limited to, artificial intelligence, quantum information science, and cybersecurity), STEM, STEM education, research, and outreach. Support is available to TCUP-eligible institutions for transformative capacity-building or community engagement projects through Instructional Capacity Excellence in TCUP Institutions, Targeted STEM Infusion Projects, TCUP for Secondary and Elementary Teachers in STEM, TCU Enterprise Advancement Centers, Cyberinfrastructure Health, Assistance, and Improvements, and Preparing for TCUP Implementation. Collaborations led by TCUP institutions that involve non-TCUP institutions of higher education are supported through TCUP Partnerships, with the participation of other National Science Foundation (NSF) programs to support the work of non-TCUP institutions. Finally, research studies that further the scholarly activity of individual faculty members are supported through Small Grants for Research. Through the opportunities highlighted above, as well as collaborations with other NSF divisions and directorates, and other organizations, TCUP aims to increase Native individuals' participation in STEM careers, improve the quality of STEM programs at TCUP-eligible institutions, and facilitate the development of a strong STEM

enterprise in TCUP institutions' service areas.

Department of Energy (DOE) Traineeship in Accelerator Science & Technology

Department of Energy, Deadline, June 6, 2023

The DOE Office of Science program in High Energy Physics (HEP) hereby announces its interest in receiving applications for the DOE Traineeship in Accelerator Science & Engineering, which will provide support to train the next generation of scientists and engineers in this field. Up to four grants may be awarded to provide funding to universities or teams of universities to support tuition, stipend, and travel costs for students enrolled in specific accelerator science and engineering degree programs, and to provide modest support for topic-specific curriculum development and program administration. Award terms are expected to be up to five years, with the possibility of renewal for a second term. This program does not support dedicated accelerator research and development efforts; such efforts are supported through the HEP General Accelerator R&D program, through accelerator R&D programs elsewhere in DOE, and by other federal agencies.

2023 STEM Talent Challenge

Department of Commerce, Deadline, June 12, 2023

The Economic Development Agency's Office of Innovation & Entrepreneurship is seeking applications from eligible applicants to create and implement innovative STEM work-based learning models (such as Registered Apprenticeships) that complement their respective region's innovation economy. The STEM Talent Challenge seeks to develop or expand regional workforce capacity to support high-growth, high-wage entrepreneurial ventures, industries of the future (which usually includes industries that leverage emerging technologies), and other innovation-driven businesses that have a high likelihood of accelerating economic competitiveness and job creation in their respective regions and in the United States.

Industry-University Cooperative Research Centers (IUCRC) Program

National Science Foundation, Deadline, June 14, 2023

The IUCRC program catalyzes breakthrough pre-competitive research by enabling close and sustained engagement between industry innovators, world-class academic teams, and government agencies. IUCRCs help industry partners and government agencies connect directly and efficiently with university researchers to achieve three primary objectives: (1) conduct high-impact research to meet shared and critical industrial needs in companies of all sizes; (2) enhance U.S. global leadership in driving innovative technology development; and (3) identify, mentor, and develop a diverse, highly skilled science and engineering workforce.

Expanding Artificial Intelligence (AI) Innovation through Capacity Building and Partnerships

National Science Foundation, Deadline, June 26, 2023

The NSF and its partners support the continued growth of a broad and diverse interdisciplinary research community for the advancement of AI and AI-powered innovation, providing a unique opportunity to broadly promote the NSF vision and core values, especially inclusion and collaboration. The Expanding AI Innovation through Capacity Building and Partnerships program aims to significantly broaden participation in AI research, education, and workforce development through capacity development projects and through partnerships within the National AI Research Institutes ecosystem.

Centers for Research and Innovation in Science, the Environment, and Society (CRISES)

National Science Foundation, Deadline, June 26, 2023

The NSF seeks to build research capacity and infrastructure to address complex and compounding national and global crises whose solutions require a human-centered approach. To help generate effective and long-lasting solutions that benefit the entire U.S. public, NSF is providing this funding opportunity to inform possible future CRISES.

BIL: Energy Improvement in Rural or Remote Areas (ERA) FOA

Department of Energy, Deadline, June 28, 2023

The Infrastructure Investment and Jobs Act, commonly referred to as the BIL, authorizes DOE to invest $1B in energy improvements in rural or remote areas. DOE's ERA Program will provide financial investment, technical assistance, and other resources to advance clean energy demonstrations and energy solutions that are replicable and scalable.

DE-FOA-0003064 Notice of Intent to Issue FOA No. DE-FOA-0002954: Wind Energy Technologies Office Offshore Wind 2023 Centers of Excellence

Department of Energy, Deadline, June 30, 2023

The Office of Energy Efficiency and Renewable Energy seeks to seed one to three university-led Centers of Excellence to catalyze an education, research, and partnership ecosystem to address technology, deployment, and workforce needs for developing U.S. offshore wind industry leadership. The university-led Centers of Excellence funded through this opportunity are intended to accelerate and maximize the effectiveness, reliability, and sustainability of the United States. The ideal institution will have relevant existing credentials, robust diversity and inclusion strategies, and expansive regional partnerships to excite and supercharge the next generation of the renewable energy workforce.

BIL: Storage, Validation, and Testing (Section 40305): Carbon Storage Assurance Facility Enterprise (CarbonSAFE): Phases III, III.5, and IV

Department of Energy, Deadline, July 6, 2023

This FOA (DE-FOA-0002711) will support the availability of Carbon Capture, Utilization, and Storage (CCUS) and CO_2 removal to reach climate goals by building upon these learnings to test, mature, and validate CCUS technologies at commercial-scale. One aspect is the need to improve practices regarding how to efficiently and cost-effectively characterize and permit commercial carbon storage project site(s) ensuring that secure geologic carbon storage is available in diverse regions and settings that will support longer term carbon management goals across the United States. The CarbonSAFE initiative was launched in 2016. Modification 000003 is to add a

second closing, add Phase II CarbonSAFE as Area of Interest 4 and associated requirements, revise prerequisite requirements to Phase IV, reduce page numbers for Technical Volume and CarbonSAFE Phases III, III.5, and IV Project Readiness, update Program Policy Factors, update various terms in different sections, and clarify language in various sections. Please see full FOA document for a detailed list of the changes.

Department of Labor (DOL) Building Pathways to Infrastructure Jobs Grant Program

Department of Labor, Deadline, July 7, 2023

The purpose of the DOL Building Pathways to Infrastructure Jobs Grant Program is to fund public-private partnerships to develop, strengthen, and scale promising and evidence-based training models in H-1B industries and occupations critical to meeting the goals of the BIL and to maximize the impact of these investments. The U.S. will need a proficient workforce to fill the good-paying jobs created by this historic investment, and this grant program will train job seekers in advanced manufacturing; information technology; and professional, scientific, and technical services occupations that support renewable energy, transportation, and broadband infrastructure sectors.

Facilitating a Domestic Critical Minerals (CM) Future: Carbon Ore, Rare Earths and Critical Minerals (CORE-CM) Initiative

Department of Energy, Deadline, July 17, 2023

This is solely a request for information and is not a Funding Opportunity Announcement. The DOE is not accepting applications to this Request for Information (RFI). This RFI will seek input from industry members, investors, developers, academia, research laboratories, government agencies, tribal governments, potentially impacted communities and other stakeholders to advance the use of unconventional and secondary feedstocks to produce rare earth elements (REEs), critical materials (CMs) and novel high-value, nonfuel carbon-based products, which are needed to ensure U.S. energy, economic and national security. This RFI supports the CORE-CM Initiative.

This is a Notice of Intent to Issue a Funding Opportunity Announcement No.: DE-FOA-0003036 "Energy Storage Demonstration and Validation"

Department of Energy, Deadline, July 31, 2023

The DOE Office of Electricity intends to issue Funding Opportunity Announcement number DEFOA0003036 titled Energy Storage Demonstration and Validation. This Notice of Intent to Issue is for informational purposes only; the DOE is not seeking comments on the information in this notice and applications are not being accepted at this time. Any information contained in this notice is subject to change. The anticipated Funding Opportunity Announcement will address FY2023 Congressional Direction, which directs OE to pursue a competitive pilot demonstration grant program, as authorized in section 3201 of the Energy Act of 2020, for energy storage projects that are U.S.-controlled, U.S.-made, and North American sourced and supplied. The Department is directed to include in this program large scale commercial development and deployment of long cycle life, lithium-grid scale batteries and their components.

Request for Information on Barriers to Historically Black Colleges and Universities (HBCUs) in applying for Nuclear Forensics Research Awards (NFRAs)

Department of Homeland Security, Deadline, July 31, 2023

The intent of this RFI is to provide an opportunity for HBCUs to share information on the barriers encountered in applying to Notice of Funding Opportunity announcements for NFRAs under the National Nuclear Forensics Expertise Development Program. Responses to this RFI will help the Countering Weapons of Mass Destruction Office understand challenges and improvements the Department of Homeland Security can make in future NFRA award opportunities that will improve participation from HBCUs. THIS IS A RFI ONLY. This notice does not constitute a commitment by the government. Providing a response to this request will not give any advantage to any organization in any subsequent Notice of Funding Opportunity. All information submitted in response to this announcement is voluntary, and the government will not pay for information requested nor will it compensate any respondent for any cost incurred in developing information provided to the government.

NETL News

DOE Seeks Information on the Use of Unconventional and Secondary Sources as Feedstocks to Rebuild and Secure a Domestic CM Supply Chain

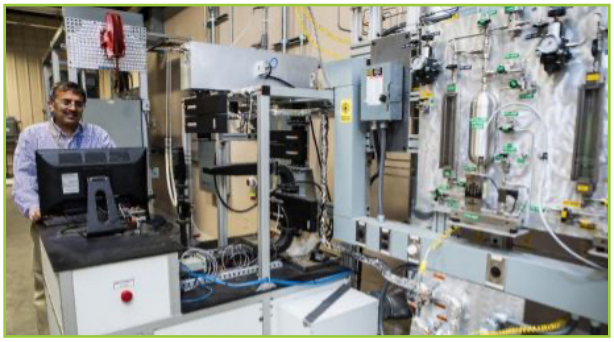
WASHINGTON — The DOE Office of Fossil Energy and Carbon Management has released a RFI that seeks input on the regional assessment and production of REEs, CMs, and novel high-value, nonfuel carbon-based products from unconventional and secondary feedstocks such as coal and coal by-products and effluent waters from oil and natural gas development and production.

Biden Harris Administration Invests $251M to Expand Infrastructure to Support CO_2 Transport and Storage

Washington — As part of President Biden's Investing in America agenda, the DOE today announced $251M to support 12 selected projects across seven states that will bolster the nation's carbon management capabilities.

Improved Ammonia Production Process Developed in Successful NETL Partnership

When NETL researchers teamed up with colleagues at West Virginia University (WVU) and Malachite Technologies, their mission was to improve on a process that has dominated ammonia production for more than 100 years by producing the valuable chemical at low temperatures and near-ambient pressures. The team found success by combining cutting-edge microwave reaction science research at NETL with specialized catalyst development from WVU and reactor manufacturing experience from Malachite to create the award-winning Microwave Ammonia Synthesis process.



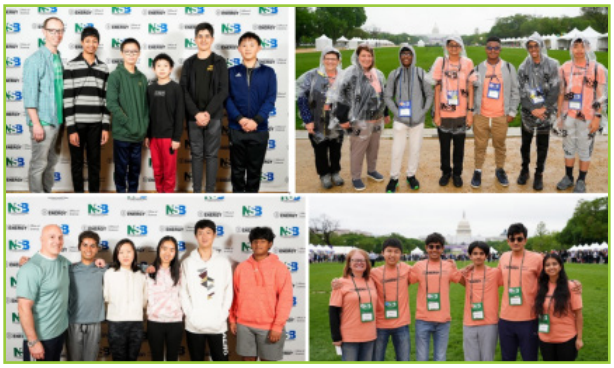
NETL Investigates Microwaving Plastic and Corn Wastes as Feedstocks for Hydrogen Production

NETL researchers are investigating the use of microwaves to convert a combination of waste plastics and the stalks, leaves and cobs that remain in fields after corn is harvested (called corn stover) into hydrogen, which can then be used in various industrial and energy-related applications.

LCA
Life Cycle Analysis
energy sustainability

NETL's Life Cycle Analysis (LCA) Helps Decision Makers Develop Sustainable Chemicals and Fuels

As new technologies and processes are created to achieve the administration's goal of a net-zero greenhouse gas emission energy economy by 2050, a skilled NETL team takes precise steps to understand the innovations' environmental impacts through rigorous LCA processes. The results help people make better decisions to improve and protect the environment.

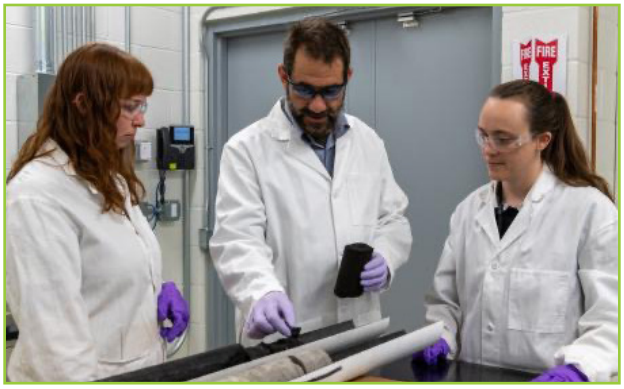


Winners of NETL's Regional Science Bowls Fare Well at National Contest

High school and middle school teams that won NETL's annual regional Science Bowl competitions for West Virginia and western Pennsylvania made strong showings at the national contest held April 27–May 1, 2023, in Washington, D.C. Suncrest Middle School Team 1 and Morgantown High School Team 1 earned trips to compete in the National Science Bowl after winning the 2023 West Virginia Regional Science Bowl.

NETL Director Outlines Lab's Role in Transition to the Hydrogen Economy

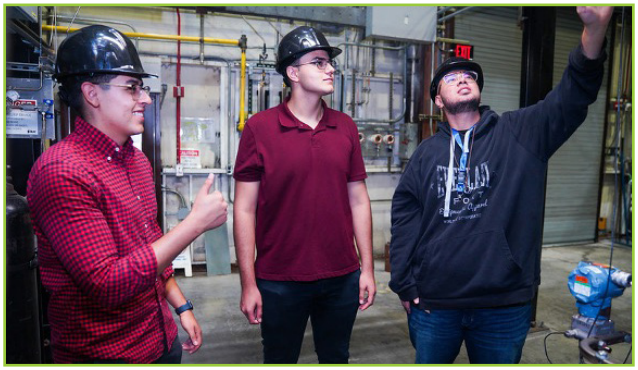
NETL Director Brian Anderson highlighted the expertise of the lab's researchers to advance innovations and scientific discoveries that support the development of regional clean hydrogen hubs across the United States, including a project planned through a partnership with the State of West Virginia, EQT Corp., the nation's largest natural gas producer, and others.



NETL Helps Find and Unlock a Domestic Supply of REEs Needed to Secure a Clean Energy Future

The United States currently imports nearly all its supply of REEs, which are a group of CMs that are vital for decarbonizing the energy system. However, NETL researchers have been on the hunt to discover a multitude of resources and to understand the nature and recoverability of these valuable materials within our own borders, opening a pathway to reestablishing the nation as a global leader in REE production.

Reports and Resources

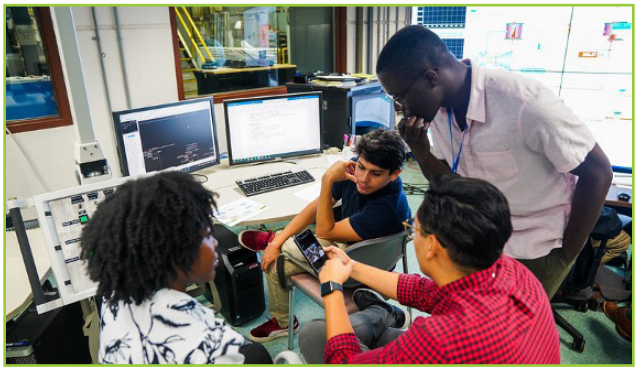


Diversity and STEM: Women, Minorities, and Persons with Disabilities

National Science Foundation

A diverse workforce provides the potential for innovation by leveraging different backgrounds, experiences, and points of view. Innovation and creativity, along with technical skills relying on expertise in STEM, contribute to a robust STEM enterprise. Furthermore, STEM workers have higher median earnings and lower rates of unemployment compared with non-STEM workers. This report provides high-level insights from multiple data sources into the diversity of the STEM workforce in the U.S.

DOE STEM Rising



DOE Announces $7.75M Investment in Historically Black Colleges and Universities (HBCUs) to Support STEM Workforce

The DOE announced the HBCU Clean Energy Education Prize, a competition that will help HBCU institutions develop programming to strengthen the participation of K–12 and community college students in STEM fields. The $7.75M prize competition will support the creation of clean energy "ecosystems," or community networks, to inspire the next generation of students to work in STEM fields related to clean energy.

Biden-Harris Administration Announces $4.5M to Build K–12 Staff Capacity and Lower Energy Costs for Schools

The Biden-Harris Administration, through the DOE announced the Phase 1 Winners to share in the $4.5M Energy Champions Leading the Advancement of Sustainable Schools Prize (Energy CLASS Prize), a competitive award promoting energy management in school districts across the United States. Twenty-five Local Education Agencies will each receive a $100k cash prize to establish, train, and support energy managers in their schools. These Energy Champions will develop projects and skills to lower energy costs, improve indoor air quality, and enhance learning environments in their communities.

DOE Begins Accepting Applications for 2024 Collegiate Wind Competition (CWC)

The DOE has begun *accepting applications* for the 2024 CWC, an annual competition that aims to prepare the future wind energy workforce through real-world technology, project development, and outreach experience. Interested teams should apply by 4:59 p.m. MT on June 15, 2023.

DOE to Support 999 Outstanding Undergraduate Students and 79 Faculty Members from Institutions Underrepresented in the Scientific Research Enterprise

The DOE's Office of Science will sponsor the participation of 999 undergraduate students and 79 faculty members in three STEM-focused workforce development programs at 16 DOE national laboratories and a national fusion facility during summer 2023. Collectively, these programs ensure DOE and our nation have a strong, sustained workforce trained in the skills needed to address the energy, environment, and national security challenges of today and tomorrow.

Biden-Harris Administration Announces $72M to Expand Pathways to Clean Energy Jobs

As part of President Biden's *Investing in America* agenda, the DOE has announced five competitively selected higher education institutions to serve as Centers of Excellence for DOE's *IAC Program* and will receive a combined $18.7M in funding from the BIL. Also, DOE today announced a $54M *funding opportunity* from the law to expand the IAC Program to community colleges, trade schools, and union training programs, and create new *Building Training and Assessment Centers* at higher education institutions. Both announcements advance the department's mission to streamline the career pipeline for students looking to join the clean energy economy, part of the Biden-Harris Administration's actions to achieve net-zero emissions no later than 2050 while supporting workers and communities.

ABOUT NETL

NETL, owned and operated by DOE, is one of the Department's 17 National Laboratories. NETL supports DOE's mission to advance the national, economic, and energy security of the United States.

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