RWFI E-NOTE MONTHLY

REGIONAL WORKFORCE INITIATIVE • AUGUST 2023

Welcome Message

Greetings NETL RWFI stakeholders,

This month's funding opportunity in focus is the National Science Foundation's *Advanced Technological Education* program with a closing date of Oct. 5, 2023. In this month's report section we highlight the release of the *2023 U.S. Energy and Employment Report*. Finally, in a STEM update from DOE, the announcement of deadlines for Spring 2024 internships programs for the *Science Undergraduate Laboratory Internships* program and the *Community College Internships* program.

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. Please also check final deadline dates with original links.

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

Advanced Technological Education (ATE)

National Science Foundation, Deadline, Oct. 5, 2023

With a focus on two-year Institutions of Higher Education (IHEs), the ATE program supports the education of technicians for the high-technology fields that drive our nation's economy. The program involves partnerships between academic institutions (grades 7–12, IHEs), industry, and economic development agencies to promote improvement in the education of science and engineering technicians at the undergraduate and secondary institution school levels. The ATE program supports curriculum development, professional development of college faculty and secondary school teachers, career pathways, and other activities. The program invites applied research proposals that advance the knowledge base related to technician education. It is required that projects be faculty driven and that courses and programs are credit bearing, although materials developed may also be used for incumbent worker education.

Experiential Learning for Emerging and Novel Technologies

National Science Foundation, Deadline, Sept. 14, 2023

Through this new initiative, the Directorate for Education and Human Resources and the newly established Directorate for Technology, Innovation and Partnerships (TIP) seek to support experiential learning opportunities for individuals from diverse professional and educational backgrounds that will increase access to, and interest in, career pathways in emerging technology fields (e.g., advanced manufacturing, advanced wireless, artificial intelligence, biotechnology, quantum information science, semiconductors, and microelectronics). As the National Science Foundation (NSF) seeks to support the development of technologies in such fields, similar support will be needed to foster and grow a diverse STEM workforce to contribute to such innovation.

Solar for All Competition

Environmental Protection Agency, Deadline, Sept. 26, 2023

This Notice of Funding Opportunity (NOFO) is for the $7B Solar for All competition. This competition will award up to 60 grants to states, territories, tribal governments, municipalities, and eligible nonprofit recipients to expand the number of low-income and disadvantaged communities primed for distributed solar investment—enabling millions of low-income households to access affordable, resilient, and clean solar energy.

NSF Boosting Research Ideas for Transformative and Equitable Advances in Engineering

National Science Foundation, Deadline, Sept. 28, 2023

The NSF's strategic goals are to expand knowledge and build capacity for a diverse science and engineering workforce, consistent with NSF's commitment to diversity, equity, and inclusion in all science and engineering fields and research endeavors, as well as with U.S. Government priorities. This solicitation seeks proposals that enable experienced researchers with active research programs to take risks not typically associated with proposals submitted to core programs by pivoting to research areas where they have no proven track record, gaining knowledge from a different discipline and using it to forge new directions in their research field, or exploring divergent, bold, and ambitious research ideas where the expected scientific outcomes are highly uncertain and the potential to transform a field is significant, or experienced researchers with a hiatus in research activity to reestablish a foundation for sustained research productivity and broader impacts. It is grounded in the expectation that leveraging prior science and engineering outcomes, harnessing talent from the broad scientific research community, enabling time for reflection and deliberation, including by learning new skills and through immersion in new areas, and supporting intellectual risk taking will lead to scientific and technological innovation.

Powering Affordable Clean Energy (PACE)

U.S. Department of Agriculture, Deadline, Sept. 29, 2023

The PACE program is part of the Inflation Reduction Act. With $1B in funding, PACE helps make clean, affordable, and reliable energy accessible to the people of rural America. Under PACE, USDA Rural Development's Rural Utilities Service will forgive up to 60 percent of loans for renewable energy projects that use wind, solar, hydropower, geothermal, or biomass, as well as for renewable energy storage projects.

Notice of Intent to Issue Inflation Reduction Act Section 50131 Funding Opportunity Announcement No. DE-FOA-0003056 Technical Assistance for the Adoption of the Latest and Zero Building Energy Codes or Standards

Department of Energy, Deadline, Sept. 30, 2023

This Notice of Intent is to inform state and local governments that the Office of State and Community Energy Programs (SCEP) intends to issue a Funding Opportunity Announcement (FOA) entitled "Technical Assistance for the Adoption of the Latest and Zero Building Energy Codes or Standards Funding Opportunity Announcement." SCEP anticipates funding state and local efforts to update building energy codes, or equivalent standards, and to develop effective code workforce, training, compliance and enforcement programs. This is solely a notice of intent and not a FOA. SCEP is not accepting applications at this time.

2023 Funding Opportunity Announcement for Energy Future Grants (EFG) Creating a Community-Led Energy Future

Department of Energy, Deadline, Sept. 30, 2023

The EFG provides $27M in financial assistance to support local, state, and tribal government-led partnership efforts that will advance clean energy program innovation. EFG seeks to enhance energy affordable and access for communities, ensuring the broad benefits of a clean energy economy—including heath, economic development and jobs and emissions reductions—flow to disadvantaged communities.

Manufacturing USA Workforce, Education and Vibrant Ecosystems (WEAVE) Public Service Awards

National Institute of Standards and Technology, Deadline Oct. 2, 2023

Through this WEAVE funding opportunity, the National Institute of Standards and Technology invites eligible Manufacturing USA institutes to propose high-impact public service projects to support vibrant and inclusive advanced manufacturing ecosystems that promote domestic production of institute-developed advanced manufacturing technologies and equitable access to good jobs.

Bipartisan Infrastructure Law: Energy Improvement in Rural or Remote Areas (ERA) Fixed Award Grant Program

Department of Energy, Deadline Oct. 12, 2023

This FOA provides $50M in Federal funding and is designed to support small community-driven clean energy projects requiring $500,000 to $5M in Federal funding. Other ERA funding opportunities include DE-FOA-0002970, titled "Bipartisan Infrastructure Law: Energy Improvement in Rural or Remote Areas," which provides $5M to $100M in Federal funding to community- and large-scale demonstration projects that address region-specific energy challenges, and a $15M Energizing Rural Communities Prize, which provides up to $300,000 cash prizes to assist development of partnerships and financing models to advance clean energy projects. This FOA utilizes a simplified application process and will award fixed-amount grants. This grant mechanism significantly reduces financial reporting requirements associated with larger DOE awards. Recipients are responsible for accomplishing their proposed work.

Clean Communities Investment Accelerator (CCIA) Grant Competition

Environmental Protection Agency, Oct. 12, 2023

The Environmental Protection Agency (EPA) is launching three distinct but complementary grant competitions: a $14B National Clean Investment Fund (NCIF) competition to finance clean technology deployment nationally; a $6B CCCIA competition to finance clean technology deployment in low-income and disadvantaged communities while simultaneously building the capacity of community lenders that serve those communities; and a $7B Solar for All competition to spur adoption of clean distributed solar energy that lowers energy bills for millions of Americans in low-income and disadvantaged communities. This Notice of Funding Opportunity provides details on the $6B CCIA competition. This competition will provide grants to 2–7 hub nonprofits that will provide funding and technical assistance to specific industry networks of public, quasi-public, not-for-profit, and nonprofit community lenders, supporting the goal that every community in the country has access to the capital they need to deploy clean technology projects in their homes, small businesses, schools, and community institutions. These community lenders could include community development financial institutions (including Certified Native CDFIs), credit unions, green banks, housing finance agencies, minority depository institutions, and other types of lenders.

NCIF Grant Competition

Environmental Protection Agency, Oct. 12, 2023

EPA is launching three distinct but complementary grant competitions: a $14B NCIF competition to finance clean technology deployment nationally; a $6B CCIA competition to finance clean technology deployment in low-income and disadvantaged communities while simultaneously building the capacity of community lenders that serve those communities; and a $7B Solar for All competition to spur adoption of clean distributed solar energy that lowers energy bills for millions of Americans in low-income and disadvantaged communities. This Notice of Funding Opportunity provides details on the $14B NCIF competition. This competition will provide grants to 2–3 national nonprofit financing entities to create national clean financing institutions capable of partnering with the private sector to provide accessible, affordable financing for tens of thousands of clean technology projects nationwide. .

Office of Career, Technical, and Adult Education (OCTAE): Perkins Innovation and Modernization (PIM) Grant Program Assistance Listing Number 84.051F

Department of Education, Deadline, Oct. 13, 2023

The purpose of the PIM grant program is to identify, support, and rigorously evaluate evidence-based and innovative strategies and activities to improve and modernize career and technical education (CTE) and ensure workforce skills taught in CTE programs funded under the Carl D. Perkins Career and Technical Education Act of 2006, as amended by the Strengthening Career and Technical Education for the 21st Century Act, align with labor market needs.

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

National Science Foundation, Deadline, Oct. 20, 2023

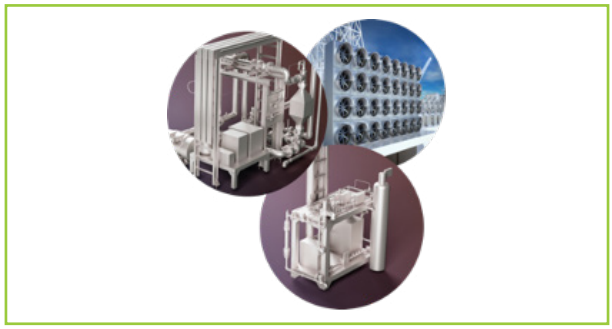
The NSF and its partners support the continued growth of a broad and diverse interdisciplinary research community for the advancement of AI and AI-powered innovation, providing a unique opportunity to broadly promote the NSF vision and core values, especially inclusion and collaboration. The ExpandAI 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.

Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES)

National Science Foundation, Deadline, Oct. 30, 2023

NSF INCLUDES is a comprehensive, national initiative to enhance U.S. leadership in STEM discovery and innovation, focused on NSF's commitment to ensuring accessibility and inclusivity in STEM fields, as communicated in the *NSF Strategic Plan for Fiscal Years 2022–2026*. The vision of NSF INCLUDES is to catalyze the STEM enterprise to work collaboratively for inclusive change, resulting in a STEM workforce that reflects the diversity of the Nation's population. More specifically, NSF INCLUDES seeks to motivate and accelerate collaborative infrastructure building to advance equity and sustain systemic change to broaden participation in STEM fields at scale. Significant advancement in the inclusion of groups that have historically been excluded from or underserved in STEM will result in a new generation of STEM talent and leadership to secure the Nation's future and long-term economic competitiveness.

NETL News



NETL To Discuss Plans to Accelerate Commercialization of Direct Air Capture (DAC) Technologies

David Luebke, technical director of NETL's DAC Center, will discuss the Lab's efforts to accelerate the commercialization of DAC technologies during a presentation Wednesday, Aug. 16, 2023, at the fall meeting of the American Chemical Society in San Francisco, California.

NETL Hosts the National Association of State Energy Officials (NASEO) for Tours of Morgantown and Pittsburgh Sites

Representatives of energy institutions throughout the country got a first-hand look at the technologies and talent at the NETL campuses across Appalachia as the lab hosted NASEO.

DOE Invests Over $13M for Projects That Capture Carbon Emissions from Industrial Facilities, Power Plants, Air, and Oceans

DOE's Office of Fossil Energy and Carbon Management (FECM) today announced 23 projects to receive a total of more than $13M in funding supporting research and development for carbon management technologies and applications that will reduce CO_2 emissions to address the impacts of climate change.

NETL Project Partner Navistar Develops Next Level of Freight Efficiency with the International SuperTruck II

Illinois-based Navistar Inc., and their subsidiary International Truck, working in partnership with NETL, developed the Navistar SuperTruck II, which represents the cutting edge of heavy-duty truck design incorporating several improvements resulting in increased operational efficiency, lower costs and decreased fuel consumption.

NETL Develops Framework for Assessing the Feasibility of Recovering REEs from Unconventional Sources

NETL recently created a framework to assess the economic viability of recovering REEs from unconventional feedstocks like coal and coal waste — an advance that is part of NETL efforts to unlock new domestic sources of critical minerals (CM) that can ease the Nation's dependence on foreign sources for the minerals. The success was the subject of a new article in a prestigious science journal.

With NETL Support, U.S. Company Develops Technology that Uses Coal Waste in Lithium-Ion Batteries

An award-winning technology, developed by an American company with support from NETL, uses coal waste as an anode material in lithium-ion batteries—an innovation that researchers believe is an eco-friendly way to help the U.S. reduce reliance on foreign countries for critical materials that are needed to support the growing demand for batteries used in battery electric vehicles (BEVs), energy storage, and other products.

NETL, Other National Labs Explore Innovative Pathways to Produce Carbon-Negative Hydrogen

NETL expertise was showcased at a recent workshop held to develop innovative pathways to produce hydrogen as a clean and affordable fuel of the future and identify opportunities for collaborative research efforts among national labs, academic researchers, and industry partners.

NETL's Geo-Data Science Research Helping Pinpoint Unconventional Rare Earth Element Rare Earth Element (REE) Deposits

NETL research focused on finding and characterizing unconventional sources of REEs reached a pivotal maturation point this year with the public release of several tools and publications to help stakeholders accelerate next-generation, clean-energy technologies by tapping into a domestic supply of these CMs.

Reports and Resources

2023 U.S. Energy and Employment Report (USEER)

The DOE released the *2023 USEER*, a comprehensive study designed to track and understand employment trends across the energy sector. As the private sector continues to announce major investments in American-made energy thanks in large part to President Biden's Investing in America agenda, the 2023 USEER shows that the energy workforce added almost 300,000 jobs (+3.8% growth) in 2022. Clean energy jobs increased in every state reflecting increased investments due to President Biden's *Investing in America agenda*. Clean energy jobs grew 3.9% adding 114,000 jobs nationally, increasing to over 40% of total energy jobs. Clean energy technologies, such as solar and wind, accounted for more than 84% of net new electric power generation jobs, adding over 21,000 jobs (+3.6% growth), and jobs related to zero emissions vehicles saw nearly 21% growth, adding over 38,000 jobs.

DOE STEM Rising

Shape the Future of Building Science! Join the 2023–2024 Join the Discussion, Unveil Innovation, Make Connections, Promote Tech-to-Market (JUMP) into STEM Student Competition

JUMP into STEM is back with three new challenges and more opportunities for university students interested in building science. The DOE's Building Technologies Office's annual competition kicked off its sixth year on Aug. 1, 2023. Hosted by Oak Ridge National Laboratory, the National Renewable Energy Laboratory, and the Pacific Northwest National Laboratory, the online competition provides students enrolled in a U.S. college or university with the opportunity to present solutions to some of the biggest challenges facing building scientists today. The competition is also supported by industry sponsorship.

DOE's Office of Science Is Now Accepting Applications for Spring 2024 Undergraduate Internships

Applications are currently being accepted for the Spring 2024 term of two programs offered by the DOE Office of Science (SC): the *Science Undergraduate Laboratory Internships* program and the *Community College Internships* program. The application deadline for the two programs is Wednesday, Oct. 4, 2023, at 5:00 p.m. EDT.

National Nuclear Security Administration (NNSA) to award $2.17M for new apprenticeship programs

The DOE's NNSA has awarded two organizations five-year grants totaling $2.17M, to develop and strengthen apprenticeship training programs aligned with NNSA's needs for traditional and emerging technician positions throughout its laboratories, plants, and sites. The selections were made after review of grant applications submitted in response to the funding opportunity announcement.

Biden- Harris Administration Announces $150M for States to Train Residential Energy Efficiency Contractors Through Investing in America

As part of President Biden's Investing in America agenda, the DOE today announced funding for states to begin training a new generation of residential energy contractors. Funded by the President's Inflation Reduction Act, the *State-Based Home Energy Efficiency Contractor Training Grants Program* will provide $150M in grants for states to reduce the cost of training, testing, and certifying residential energy efficiency and electrification contractors. Also referred to as Contractor Training Grants, the program will provide states with funds to develop and implement workforce training programs for residential efficiency and electrification projects to help Americans save money on their energy bills. This funding will attract and educate new workers in the energy efficiency industry, train and empower existing workers, and support business owners to make homes healthier and more energy efficient, which are key to advancing the Biden-Harris Administration's historic climate agenda and Bidenomics strategy for growing the economy from the middle out and bottom up.

DOE and Stellantis Announce the Battery Workforce Challenge

The DOE and Stellantis today announced the launch of the Battery Workforce Challenge, which includes a three-year collegiate engineering competition; vocational training; youth education in STEM; and career and technical education.

ABOUT NETL

NATIONAL ENERGY TECHNOLOGY LABORATORY

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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