

RWFI E-NOTE MONTHLY

REGIONAL WORKFORCE INITIATIVE • NOVEMBER 2024

Welcome Message

Greetings NETL RWFI stakeholders,

In this month's funding opportunity in focus is National Science Foundation's *Future Manufacturing* funding opportunity. The goal of Future Manufacturing is to support fundamental research, education, and training of a future workforce to overcome scientific, technological, educational, economic, and social barriers in order to catalyze new manufacturing capabilities that do not exist today. In the events and meetings section of the e-note you can find information for students interested in the Summer 2025 *Mickey Leland Energy Fellowship program* on the application process with a series of webinars on the topic.

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



Future Manufacturing

National Science Foundation, Deadline, Jan. 18, 2025

The goal of Future Manufacturing is to support fundamental research, education, and training of a future workforce to overcome scientific, technological, educational, economic, and social barriers in order to catalyze new manufacturing capabilities that do not exist today. Future Manufacturing seeks inventive approaches to invigorate the manufacturing ecosystem and seed nascent future industries that can only be imagined today. Future Manufacturing supports research and education that will enhance U.S. leadership in manufacturing by providing new capabilities for companies and entrepreneurs, by improving our health, quality of life, and national security; by expanding job opportunities to a diverse STEM workforce; and by reducing adverse impacts of manufacturing on the environment.

Advancing Informal Learning

National Science Foundation, Deadline, Jan. 8, 2025

The Advancing Informal STEM Learning program is committed to funding research and practice, with continued focus on investigating a range of informal STEM learning experiences and environments that make lifelong learning a reality. This program seeks proposals that center engagement, broadening participation and belonging, and further the well-being of individuals and communities who have been and continue to be excluded, underserved, or underrepresented in STEM along several dimensions.

Manufacturing Extension Partnership (MEP) Center State Competition

Department of Commerce, Deadline, Jan. 9, 2025

The National Institute of Standards and Technology MEP is seeking applications from eligible applicants to enter into a cooperative agreement to operate an MEP Center in one of the following states: Texas, Tennessee, New Hampshire, Oklahoma, Michigan, Virginia, Connecticut, North Carolina, Oregon, Colorado, and Indiana. The MEP Center will provide manufacturing extension services to small and mid-sized manufacturers and will become part of the MEP National Network, which consists of 51 MEP Centers located in every state and Puerto Rico, and over 1,440 trusted advisors and experts at approximately 460 MEP service locations.

DE-FOA-0003371 FY24 Scale-Up of Integrated Biorefineries

U.S. Department of Energy, Deadline, Jan. 14, 2025

Funding Opportunity Announcement (FOA) DE-FOA-0003371 FY24 Scale-up of Integrated Biorefineries supports higher risk bioenergy technologies that are ready to scale, ultimately demonstrating feedstock-conversion variations, or production pathways, to support commercialization and meet the Sustainable Aviation Fuel (SAF) Grand Challenge goal of 35 billion gallons per year of SAF production by 2050 and the Clean Fuels and Products Shot goal of 50% projected demand for maritime, rail, off-road, and renewable carbon-based chemicals by 2050. The activities to be funded under this FOA will support the advancement of cost-shared research, development, and demonstration projects with partners in industry, academia, and the National Laboratories focused on the design, construction, operation, and validation of new technology and feedstock pathways for engineering scale integrated biorefineries.

Training-based Workforce Development for Advanced Cyberinfrastructure

National Science Foundation, Deadline, Jan. 16, 2025

This program seeks to prepare, nurture, and grow the national scientific research workforce for creating, utilizing, and supporting advanced cyberinfrastructure (CI) to enable and potentially transform fundamental science and engineering research and education and contribute to the Nation's overall economic competitiveness and security. The goals of this solicitation are to ensure broad adoption of CI tools, methods, and resources by the research community in order to catalyze major research advances and to enhance researchers' abilities to lead the development of new CI and integrate core literacy and discipline-appropriate advanced skills in advanced CI as well as computational and data-driven methods for advancing fundamental research, into the nation's undergraduate and graduate educational curriculum/instructional materials.

National Science Foundation (NSF) Regional Innovation Engines (NSF ENGINES)

National Science Foundation, Deadline, Feb. 11, 2025

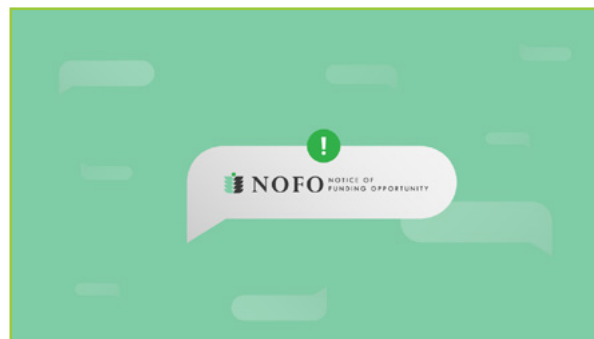
The NSF Regional Innovation Engines (NSF Engines) program creates regional-scale, technology-driven, inclusive innovation ecosystems throughout the United States by accelerating key technologies, addressing regional, national, societal, and/or geostrategic challenges, driving economic growth, creating and retaining quality jobs, expanding equitable pathways into careers, and strengthening national competitiveness and security. Each NSF Engine represents a formal coalition of regional partners, led by a full-time Chief Executive Officer, tasked to carry out an integrated and comprehensive set of activities spanning use-inspired research, translation of innovation to practice, entrepreneurship, workforce development, community engagement, and ecosystem building, to nurture and accelerate the growth of regional innovation ecosystems grounded in technological innovation and regional, national, societal, and/or geostrategic challenges.

Science of Learning and Augmented Intelligence (SL)

National Science Foundation, Deadline, Feb. 12, 2025

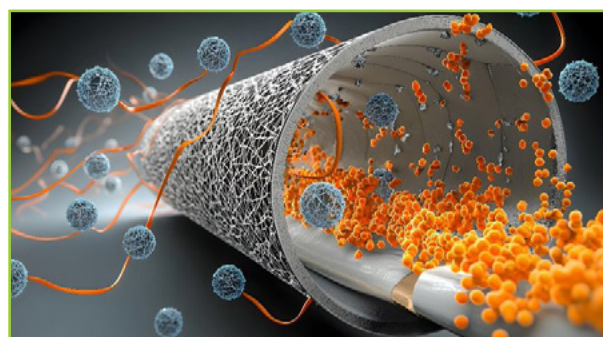
SL supports potentially transformative research that develops basic theoretical insights and fundamental knowledge about principles, processes and mechanisms of learning, and about augmented intelligence—how human cognitive function can be augmented through interactions with others or with technology, or through variations in context.

NETL News



Webinar to Discuss Opportunities for Students Through the University Training and Research Program

NETL and the DOE's Office of Fossil Energy and Carbon Management will post a pre-recorded webinar to provide information on the University Training and Research program and a grant writing discussion.



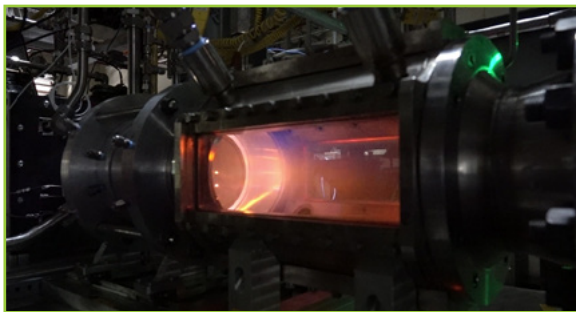
NETL Researchers Convert Coal Tar Pitch into Graphene for Improved Supercapacitors

NETL researchers have developed a low-cost process for converting coal tar waste into a high-quality graphene—material that can increase performance of energy-storing supercapacitor systems by up to 55%.



NETL, Partners Complete First Direct Air Capture (DAC) Field Test at National Carbon Capture Center (NCCC)

NETL expertise and oversight played a significant role in completing the first successful field test of a DAC technology at the NCCC.



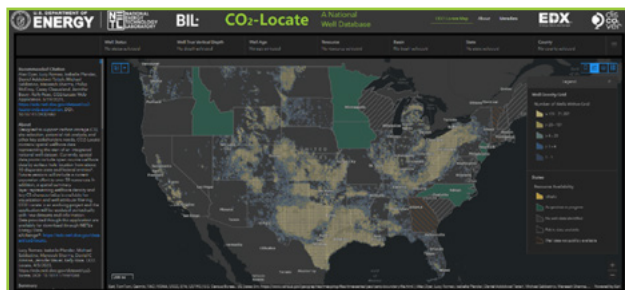
Modular Combustor Will Shed New Light on Rotating Detonation Engine (RDE) Technology

NETL researchers have successfully operated a new modular RDE combustor that offers full optical access to the fuel/air injectors, the combustion channel and across the exhaust duct. This will assist with acquiring crucial measurements to help accelerate the development of highly efficient RDE technology for power generation.



College Students: Gain Experience, Make a Difference as a DOE Mickey Leland Summer Intern at NETL

The application period is open to become a summer intern at NETL through the DOE's Mickey Leland Energy Fellowship (MLEF) program. The MLEF program offers summer research internships for undergraduate and graduate students preparing for energy-related careers in STEM fields. MLEF interns are mentored by NETL scientists and engineers while completing research projects focused on developing clean energy technologies and moving the nation toward net-zero emissions.



NETL Launches Web Application Making Data Accessible for Permitting and Risk Assessment of Carbon Storage

NETL's new CO₂-Locate web application, now available on NETL's EDX, offers decision makers access to a wide swath of information needed to help create a net-zero carbon emissions power sector. The application is one of several new, innovative tools developed with funding from the Bipartisan Infrastructure Law.

Events and Meetings

MLEF Program Summer 2025 Web Informationals

Program staff will review the application process, provide resume tips and share information on other DOE research programs that may be available. After you register you will receive an e-mail with instructions on how to join the session.

- *Virtual Information Session: Mickey Leland Energy Fellowship Program Summer 2025* December 5, 2024; 4:00–5:00 PM EST
- *Virtual Information Session: Mickey Leland Energy Fellowship Program Summer 2025* December 19, 2024; 2:00–3:00 PM EST

Reports and Resources



2024 Workforce Report

National Association of State Workforce Agencies

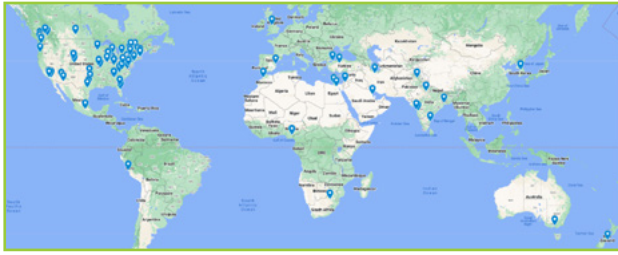
The Energy Workforce & Technology Council announced the release of the 2024 Workforce Report developed in collaboration with Accenture. The report provides a detailed analysis of the current state of employment within the energy services sector, focusing on job growth, workforce composition, and granular insights into diversity metrics.

DOE STEM Rising



Applications Now Open for DOE Computational Science Graduate Fellowship (CSGF)

The DOE announced a fellowship open to all U.S. students pursuing doctoral degrees in fields that use high-performance computing to solve complex science and engineering problems. Established in 1991 and currently carrying a \$45k annual stipend, the DOE CSGF program provides outstanding benefits and opportunities, fostering a community of energetic and committed Ph.D. students, alumni, DOE laboratory staff, and other scientists who want to have an impact on the nation while advancing their research.



Going for Gold—Announcing the Solar Decathlon 2025 Design Challenge Teams!

122 teams from 93 collegiate institutions are going for gold as competition begins for the DOE Solar Decathlon 2025 Design Challenge, DOE's longest-running student competition. The Design Challenge encourages collegiate teams to create energy-efficient, resilient, and sustainable building designs that meet community needs through affordable upgrades, existing building retrofits, resiliency improvements, and more. Innovative solutions such as these play a vital role in helping the United States meet DOE's buildings decarbonization blueprint goal of reducing building greenhouse gas emissions by 65% by 2035 and 90% by 2050.

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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