# RWFI E-NOTE MONTHLY REGIONAL WORKFORCE INITIATIVE • FEBRUARY 2024

#### Welcome Message

Greetings NETL RWFI stakeholders,

This month's funding opportunity in focus is the announcement of a new round of Appalachian Regional Commission POWER grant funding. Please visit the links for more information on deadlines and the pre-application workshop.

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**





Appalachian Regional Commission (ARC), Partnerships for Opportunity and Workforce and Economic Revitalization (POWER) Grant Program

#### Letter of Intent Deadline, March 1, 2024

#### Final Application Deadline, Wednesday April 17, 2024

The *POWER Initiative* targets federal resources to help communities and regions that have been affected by job losses in coal mining, coal power plant operations, and coal-related supply chain industries due to the changing economics of America's energy production. Since 2015, ARC has invested nearly \$421.6M in 507 projects touching 365 counties across Appalachia through the POWER Initiative.

# Buildings Energy Efficiency Frontiers & Innovation Technologies (BENEFIT)

#### Department of Energy, Deadline, March 5, 2024

The Office of Energy Efficiency and Renewable Energy is issuing, on behalf of the Building Technologies Office, a funding opportunity announcement (FOA) titled "Buildings Energy Efficiency Frontiers & Innovation Technologies – 2024." The 2024 BENEFIT FOA will invest up to \$30M (subject to appropriations) across four topic areas.

#### Future of Semiconductors

#### National Science Foundation, Deadline, March 14, 2024

Semiconductor microelectronic systems are at a crossroads. Continued advances in capabilities and reductions in costs across computing, sensing, and communications are threatened. Semiconductor technology has long advanced following the trends in miniaturization characterized by Moore's Law, underpinned by new materials, processes, devices, and architectures. However, the developments in these underpinning areas have often progressed independent of the application area, which has delayed their incorporation into next-generation technologies. Closing this gap is required to optimize future progress.

### Industrial Deployment and Demonstration Opportunities for Carbon Capture Technologies

#### U.S. Department of Energy, Deadline, March 14, 2024

This is a Request for Information (RFI) issued by the DOE's Office of Fossil Energy and Carbon Management (FECM). The intent of this RFI is to obtain public input related to a DOE plan to support the demonstration and deployment of carbon capture technologies applied to industrial sources of greenhouse gas (GHG) emissions. This plan will supplement the material included in the DOE report Pathways to Commercial Liftoff: Industrial Decarbonization and support the Administration's goals of decarbonizing the economy by 2050. The information being sought is intended to assist DOE in the planning of priorities and initiatives to catalyze the development, demonstration, and deployment of carbon capture utilization and storage for industrial decarbonization.

#### Critical Materials (CM) Accelerator

#### U.S. Department of Energy, Deadline, March 22, 2024

The CM Accelerator aims to validate and prototype technologies and processes that address CM challenges by developing alternatives, diversifying and expanding supply, increasing manufacturing and material efficiency, and establishing a circular economy.

#### Industrial Efficiency and Decarbonization Office (IEDO)

#### U.S. Department of Energy, Deadline, March 26, 2024

IEDO Fiscal Year 2024 Cross-Sector Technologies FOA. This FOA is issued by the IEDO to advance transformational cross-sector technologies and innovations needed to reduce industrial energy use and GHG emissions through high-impact applied research, development, and pilot-scale technology validation and demonstration projects.

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#### Notice of Intent (NOI) related to Regional Scale Collaboration to Facilitate a Domestic Critical Minerals Future: Carbon Ore, Rare Earth, and Critical Minerals (CORE-CM) Initiative

#### U.S. Department of Energy, Deadline, March 31, 2024

The FECM intends to issue FOA no. DE-FOA-0003077 titled "Regional Scale Collaboration to Facilitate a Domestic Critical Minerals Future: Carbon Ore, Rare Earth, and Critical Minerals (CORE-CM) Initiative." This NOI 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.

#### Future Manufacturing

#### National Science Foundation, Deadline, April 11, 2024

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.

#### Inflation Reduction Act (IRA): Methane Emissions Reduction Program Oil and Gas Methane Monitoring and Mitigation

#### U.S. Department of Energy, Deadline, April 15, 2024

This is an NOI to Issue DE-FOA-0003256 titled "IRA: Methane Emissions Reduction Program Oil and Gas Methane Monitoring and Mitigation." The anticipated technical objectives are to make funds available to a variety of applicants for the purpose of monitoring and mitigating methane emissions, and legacy air pollution from oil and gas assets, including but not limited to marginal conventional wells. These efforts are anticipated to accelerate cost reductions and commercial deployment of innovative methane emissions reduction technologies and advance the characterization and reduction of methane emissions through multi-scale, measurement-informed data collection and analysis that also support environmental justice. DISCLAIMER: The NOI is for informational purposes only and the DOE is not seeking comments on the information contained in the Notice.

# IRA of 2022 Assistance for the Adoption of the Latest and Zero Building Energy Codes

#### U.S. Department of Energy, Deadline, April 30, 2024

IRA of 2022 provides up to \$1B for states and units of local government with the authority to adopt building energy codes to adopt and implement the latest building energy codes, zero energy building codes, or equivalent codes or standards. An energy code is one of several types of building codes that help contribute to the overall health, safety, efficiency, and long-term resilience of buildings.

#### **NETL News**



#### Marianne Walck, Ph.D., Selected as NETL Director

The FECM has named Marianne Walck,  $\ensuremath{\mathsf{Ph.D.}}\xspace$  , as the new director of NETL.





The EPA and the DOE today announced an NOI to make funds available to help measure and reduce methane emissions from the oil and gas sectors as part of President Biden's Investing in America agenda. Methane is a climate "super pollutant" that is more potent than  $CO_2$  and responsible for approximately one third of the warming from GHG occurring today.



NETL Selected to Receive Grant to Advance Net-Zero Carbon Building Goals

NETL has been selected to receive a new grant to advance the laboratory's commitment to Executive Order 14057's net-zero carbon emissions buildings goals and put the laboratory one step closer to becoming the first DOE facility to operate with 100% carbon pollution-free electricity by the end of fiscal year 2026.



*New NETL Artificial Intelligence (AI) Tool Unlocks Vast Energy Data Opportunity* 

NETL researchers have harnessed the power of Al to develop a tool that can ingest enormous amounts of unstructured geological data such as publications, maps, websites and presentations and then accurately label the visual data—work that could lead to a better understanding of the subsurface for safer energy production and  $\rm CO_2$  storage.



#### NETL Launches Energy Data Exchange (EDX) Spatial to Bring Energy Research Data and Interactive Maps to Decision Makers

To help commercial, regulatory, and energy research professionals more effectively explore and interact with complex and evolving data, and glean insights through interactive maps, NETL developed EDX Spatial—a game-changing platform that empowers users to visualize data seamlessly through online mapping.



#### Morgantown High School Captures 2024 West Virginia Science Bowl (WVSB) High School Competition

Morgantown High School's Team 1 claimed victory at the 33<sup>rd</sup> WVSB Regional High School Competition, held Saturday, Feb. 3, 2024, in an in-person format for the first time in years at the West Virginia University Mountainlair. Twenty-four teams from 18 high schools participated in the contest, sponsored by the DOE and NETL. The WVSB tested students' knowledge of math and science in a fast-paced, quiz-style tournament.



### Suncrest Middle School Wins 2024 WVSB Middle School Competition

Suncrest Middle School's Team 1 captured first place at the 33<sup>rd</sup> WVSB middle school competition, which was held Friday, Feb. 2, 2024. Sixteen teams from 10 middle schools throughout the Mountain State participated in the event, sponsored by the DOE and NETL.

#### **Reports and Resources**



### *Improving Workforce Development and STEM Education to Preserve America's Innovation Edge*

There are many challenges facing the United States as it shifts from an industrial to a digital economy, but one of the most fundamental problems lies in regard to workforce development and STEM education. New advances in robotics, artificial intelligence, and advanced manufacturing are automating jobs, *displacing workers*, and requiring new skills from Americans. Computer chips are crucial to many different sectors and the construction of new fabs already is facing employee shortages. With *skills gaps* in several areas, there could be constraints in coming years on the country's ability fully to reap the advantages of a digital economy.

#### **DOE STEM Rising**

#### DOE's Office of Science is now Accepting 2024 Solicitation 1 Applications for Office of Science Graduate Student Research (SCGSR) Awards

The DOE's Office of Science is pleased to announce that the SCGSR program is now accepting applications for the 2024 solicitation 1 cycle. Applications are due on Wednesday, May 1, 2024, at 5:00 p.m. EDT. SCGSR application assistance workshops will be held on March 7, 2024, 2:00 p.m.–3:30 p.m. EST and April 18, 2024, 2:00 p.m.–4:30 p.m. EDT. The first workshop will provide a general overview of the program and the application requirements. It will also include a time for attendees to discuss their potential research topics and their alignment with the SCGSR priority areas with managers of each participating program office; *register here*. The second workshop will guide attendees through the application process, answer general questions, provide guidance on proposal writing, and feature discussions with scientists and former awardees; *register here*.

### *Twelve Teams Selected to Advance to 2024 Collegiate Wind Competition (CWC) Final Event*

The DOE announced the 12 winners of Phase 2 of the 2024 CWC, an annual competition that aims to prepare college students for jobs in the wind energy workforce through real-world wind energy technology, project development, and outreach experience.

#### DOE Awards 10 Collegiate Faculty Explorer Awards for Advancing Energy Entrepreneurship

The DOE's Office of Technology Transitions (OTT) announced 10 Faculty Explorer award recipients in the inaugural EnergyTech University Prize Faculty Track. OTT awarded each faculty competitor \$4K for showing promising interest, ideas, and/or materials promoting energy entrepreneurship at their collegiate institutions. OTT is excited to support these faculty as they work to effectively develop, refine, and implement high-quality and impactful activities.



### 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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