RWFI E-NOTE MONTHLY

REGIONAL WORKFORCE INITIATIVE • JULY 2023

Welcome Message

Greetings NETL RWFI stakeholders,

This month's funding opportunity in focus is the *Soar for All program* from the Environmental Protection Agency, with a deadline of September 26, 2023, and involves funding for eligible nonprofit recipients to "expand the number of low-income and disadvantaged communities primed for distributed solar investment".

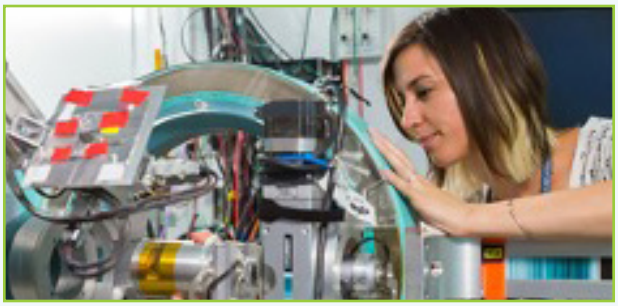
As always, feel free to reach out to us at *NETL.RWFI@netl.doe.gov* if you have any suggestions for information to present in future E-notes.

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



Solar for All

Environmental Protection Agency, Deadline, Sept 26, 2023

This Notice of Funding Opportunity (NOFO) is for the $7 billion 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.

BIL: Energy Improvement in Rural or Remote Areas FOA

Department of Energy, Deadline, August 2, 2023

The BIL authorizes DOE to invest $1B in energy improvements in rural or remote areas. DOE's Energy Improvements in Rural or Remote Areas (ERA) Program will provide financial investment, technical assistance, and other resources to advance clean energy demonstrations and energy solutions that are replicable and scalable. ERA aims to fund clean energy projects with three specific goals.

2023 FOA for Energy Improvements at Nonprofits—BIL: Renew America's Nonprofits

Department of Energy, Deadline, August 3, 2023

The Office of State and Community Energy Programs is issuing this FOA, Renew America's Nonprofits. Awards made under this FOA will be funded, in whole or in part, with funds appropriated by the BIL. This FOA seeks applications that address energy efficiency upgrades, which enable scalable impacts, create innovative partnerships, and leverage funding and economies of scale. As part of and in addition to upgrading and modernizing infrastructure, DOE's BIL investments will support efforts to build a clean and equitable energy economy that achieves a zero-carbon electricity system by 2035, and to put the United States on a path to achieve net-zero emissions economy-wide by no later than 2050 to benefit all Americans.

Notice of Intent to Issue Funding Opportunity Announcement No. DE-FOA-0002912 for BIL, Section 40551: Weatherization Assistance Program (WAP) Enhancement & Innovation

Department of Energy, Deadline August 18, 2023

The DOE Office of State and Community Energy Programs, on behalf of the WAP, intends to issue a $25M FOA entitled "BIL WAP Enhancement & Innovation," in support of section 40551 of the BIL.

Wind Energy Technologies Office Offshore Wind 2023 Centers of Excellence FOA

Department of Energy, Deadline, August 28, 2023

The university-led Centers of Excellence funded through this opportunity are intended to accelerate and maximize the effectiveness, reliability, and sustainability of U.S. offshore wind deployment and operation through partnership with industry participants, including wind project developers and technology manufacturers; other institutions of higher education; other research institutions, such as national laboratories, non-governmental organizations, tribes, and state and local-level governments.

Improving Undergraduate STEM Education: Hispanic-Serving Institutions (HSI)

National Science Foundation, Deadline, August 28, 2023

The goals of the HSI program are to enhance the quality of undergraduate STEM education and to increase the recruitment, retention, and graduation rates of students pursuing associate's or baccalaureate degrees in STEM. Achieving these, given the diverse nature and context of the HSIs, requires additional strategies that support building capacity at HSIs through innovative approaches: to incentivize institutional and community transformation; and to promote fundamental research on engaged student learning, about what it takes to diversify and increase participation in STEM effectively, and that improves our understanding of how to build institutional capacity at HSIs.

BIL: Clean Energy Demonstration Program on Current and Former Mine Land Funding Opportunity Announcement

Department of Energy, Deadline, August 31, 2023

The DOE's Office of Clean Energy Demonstrations (OCED) is issuing this FOA to support clean energy demonstration projects on current and/or former mine lands. Awards made under this FOA will be funded, in whole or in part, with funds appropriated by the BIL. As part of and in addition to upgrading and modernizing infrastructure, DOE's BIL investments will support efforts to build a clean and equitable energy economy that achieves a zero-carbon electricity system by 2035 and to put the United States on a path to achieve net-zero emissions economy-wide by no later than 2050 to benefit all Americans.

Experiential Learning for Emerging and Novel Technologies

National Science Foundation, Deadline, Sep. 14, 2023

Through this new initiative, the Directorate for Education and Human Resources (EHR) 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 NSF seeks to support the development of technologies in such fields, similar support will be needed to foster and grow a diverse science, technology, engineering, and mathematics (STEM) workforce to contribute to such innovation.

New Solar for All programs nationwide. EPA will not fund individual projects under this competition.

NSF Boosting Research Ideas for Transformative and Equitable Advances in Engineering (BRITE)

National Science Foundation, Deadline, Sept 28, 2023

The National Science Foundation's strategic goals are to expand knowledge and build capacity for a diverse science and engineering workforce [1], consistent with NSF's commitment to diversity, equity, and inclusion in all science and engineering fields and research endeavors, as well as with US Government priorities [2,3]. 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 [4-10]. 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

US Department of Agriculture, Deadline, Sept 29, 2023

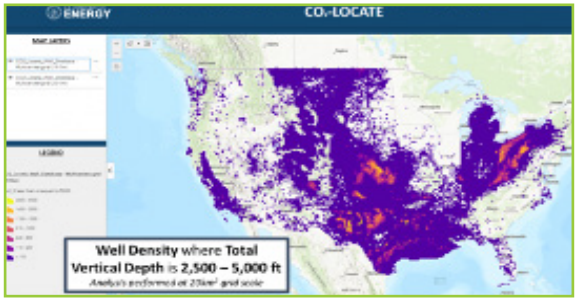
The Powering Affordable Clean Energy (PACE) program is part of the Inflation Reduction Act. With $1 billion in funding, PACE helps make clean, affordable, and reliable energy accessible to the people of rural America. Under PACE, USDA Rural Development's Rural Utilities Service (RUS) will forgive up 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 IRA 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 (NOI) 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.

NETL News

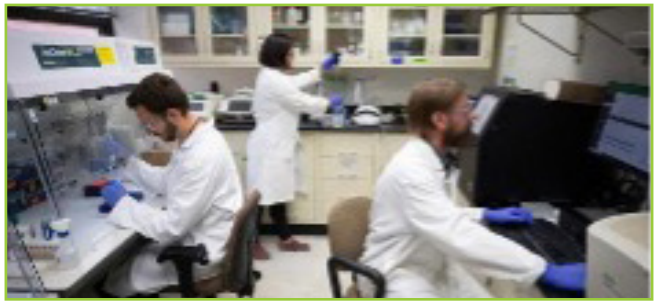


NETL CO_2-Locate Database to Enhance Carbon Capture and Storage Projects

Creating a net-zero carbon emissions power sector and economy is an immense endeavor that requires a host of intricate technologies and applications, and the CO_2-Locate database is a centralized platform that allows users to quickly and accurately obtain the data they need.

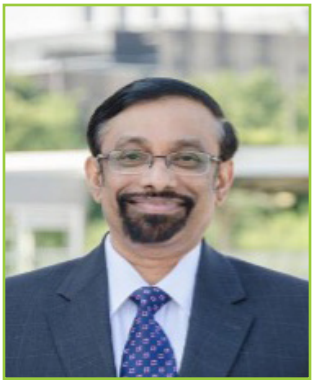
DOE Invests More Than $23 Million for Regional Projects to Accelerate U.S. Carbon Capture, Transport and Storage Technology Deployment

WASHINGTON, D.C. — The U.S. Department of Energy (DOE) today announced 16 projects across 14 states are set to receive $23.4 million to provide locally-tailored technical assistance and enhanced stakeholder engagement around carbon management technologies. The projects, housed at both universities and private sector companies, aim to connect carbon management developers with local communities to foster collaboration and education toward the advancement of commercial deployment of carbon capture, transport, and storage technologies across the United States.



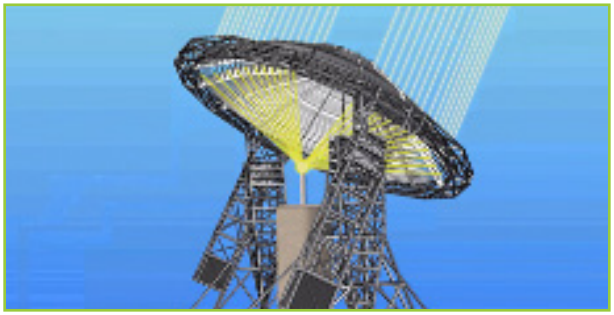
NETL Innovation Efficiently Converts CO_2 Into Acetate for Use in a Variety of Popular Products

NETL researchers have developed a biocatalyst with 99% efficiency that can convert carbon dioxide (CO_2), a waste product of fossil energy industries that warms the planet and causes climate change, into acetate — an ingredient used in many products like cleaning supplies, textiles, and as a potential feedstock for biofuels.



NETL's Hema Siriwardane Honored by Academy of Geo-Professionals

For his experiences and contributions in geological sciences, NETL's Hema Siriwardane, Ph.D., was recently inducted as Diplomate of Geotechnical Engineering in the Academy of Geo-Professionals. Hema's aspiration is to use his experience in geological sciences to realize success in geological carbon storage projects. Being inducted as a Diplomate of Geo-Professionals recognizes geotechnical engineers who have attained advanced expertise and experience, advanced education, and a specialized body of knowledge in geotechnical engineering.



NETL Explores Concentrated Solar and Conversion of Municipal Waste Products into Fuels

The U.S. Department of Energy's NETL and its partner organizations are exploring concentrated solar applications, as well as conversion of waste products into fuels, in a project called "Coal Communities Regional Innovation Cluster (CCRIC)" in West Virginia's Logan County – an effort supported by Congressionally directed funding. NETL engineer Matthew Adams said the project could have implications for communities across the nation.

NETL Deploys Decades of Subsurface Scientific Innovation to Address Today's Climate Challenges

Supported with funding from President Biden's Bipartisan Instructure Law (BIL), NETL's development of computational models and software applications are poised to accelerate the commercialization of technologies to safely inject and store hundreds of years of carbon dioxide (CO_2) in the subsurface.

NETL Experts Helping Limerick, Ireland, Develop Hydronic Heating/Geothermal Energy Project

NETL is part of an international team at work in Ireland to develop a project to demonstrate the feasibility of district-level hydronic heating using subsurface geothermal energy.

NETL Searches Kentucky's Daniel Boone National Forest for Orphan Wells

Daniel Boone, James Harrod and George Rogers Clark once explored the wilderness of Kentucky with little more than long rifles and curiosity to find places suitable for new settlements. More than 240 years later, a team of NETL researchers roamed much of the same turf with an array of sophisticated data and equipment to uncover long-abandoned oil and gas wells that could leak methane gas into the atmosphere.

Supercritical Carbon Dioxide Technology Accelerated at STEP Pilot Plant

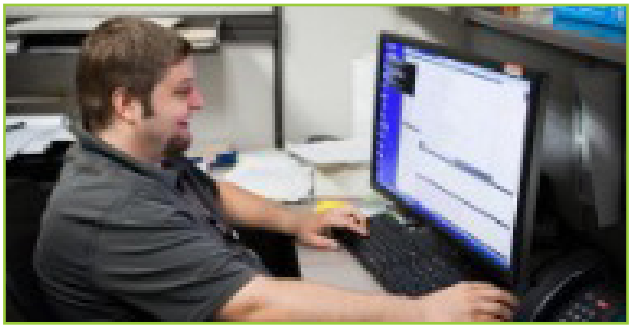
A 10-megawatt supercritical carbon dioxide (sCO_2) test facility recently achieved supercritical CO_2 conditions in its turbine compressor section — a milestone representing a significant step forward in the NETL-sponsored project, which offers a path to lower-cost power generation.

DOE Announces Over $17 Million for University-Led Projects Supporting Decarbonization and Net-Zero Greenhouse Gas Emissions

WASHINGTON — The U.S. Department of Energy's (DOE) Office of Fossil Energy and Carbon Management (FECM) today announced up to $17.7 million in funding available to support novel, early-stage research and development at eligible U.S. colleges and universities, including creating new academic curricula related to geosciences and supporting interdisciplinary training in humanities-driven science, technology, engineering, and mathematics (HDSTEM) fields.

NETL Discovers Potential Sources of Platinum Group Metals as Part of a Process for Carbon Removal

When NETL researchers began to research the potential to recover critical minerals from rocks that are processed to remove atmospheric carbon dioxide in a practice called mineral carbonation, they expected to find valuable commodities like chromium, cobalt, and nickel. But their work also discovered valuable quantities of platinum group minerals (PGMs) — extremely precious metal commodities that are critical for the clean energy economy.



NETL and AI Partner Enhance Energy Modeling Techniques

NETL, in partnership with California-based Cerebras Systems Inc., is embracing new, efficient computer architecture that can accelerate research project simulations to make a clean energy economy a reality.

Reports and Resources

A Global Hydrogen Future

Energy Futures Initiative

A Global Hydrogen Future (March 2023) is a report by the Energy Futures Initiative (EFI) and the King Abdullah Petroleum Studies and Research Center (KAPSARC) summarizing the findings of a workshop held in Washington, D.C. on pathways to speed the transition of hydrogen from a specialty chemical to a fuel and feedstock source adopted widely across multiple regions.

Annual Energy Outlook 2023

US Department of Energy

The Annual Energy Outlook 2023 (AEO_2023) explores long-term energy trends in the United States. Since we released the last AEO in early 2022, passage of the Inflation Reduction Act (IRA), Public Law 117-169, altered the policy landscape we use to develop our projections. The Appendix in this report explains our assumptions around IRA implementation and how we implemented the IRA in our AEO_2023 cases. We are also releasing a separate Issues in Focus paper that explores how these assumptions affect our model-based projections. We have seen significant national and international short-term market volatility associated with economic growth as the world reemerges from the COVID-19 pandemic and political instability associated with Russia's full-scale invasion of Ukraine.

DOE STEM Rising

Biden- Harris Administration Announces $178 Million to Improve Health, Safety, and Lower Energy Costs at K-12 Public Schools

The Biden-Harris Administration, through the U.S. Department of Energy (DOE), announced the first round of selectees for the *Renew America's Schools grant program*, a competitive award that will support the implementation of energy improvements in K–12 schools across the country. There are 24 Local Education Agencies (LEAs) in 22 states that will share in approximately $178 million of funding, enabling them to pursue diverse projects to lower energy costs, lower emissions, and create healthier, safer, and more supportive learning environments in their schools. This historic investment will directly benefit about 74,000 students and 5,000 teachers in 97 school buildings across America.

Educators Tour 'National Treasure' at Savannah River Site

Teachers from Aiken, Orangeburg and Barnwell counties in South Carolina recently learned what it takes to successfully lead students to a future in the nuclear industry during the *Savannah River Site*'s (SRS) first educator tour of the H *Canyon Chemical Separations Facility*. "Attending educators were able to witness the scale and variety of work we do inside this national treasure," said Kim Mitchell, Education Outreach programs lead for Savannah River Nuclear Solutions (SRNS), the site's management and operations contractor. "Being able to experience H Canyon's unmatched safety and security culture in a limited security area is a wonderful addition to our educator tours."

DOE Awards Over $6 Million for University Nuclear Energy Infrastructure

The U.S. Department of Energy (DOE) announced more than $6.3 million in funding for 18 projects at 15 universities in 14 states. The funding builds up scientific infrastructure and upgrades research reactors at universities to expand the nation's scientific capabilities and train the next generation of nuclear energy scientists and engineers.

DOE Announces Inclusive Energy Innovation Prize Winners

The U.S. Department of Energy (DOE) announced six grand prize winners of the *Inclusive Energy Innovation Prize*. The prize seeks to foster a just and equitable clean energy future by investing in community-led innovation and entrepreneurship programs in areas historically underserved by federal funding.

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.

1450 Queen Avenue SW
Albany, OR 97321-2198
541-967-5892

3610 Collins Ferry Road
P.O. Box 880
Morgantown, WV 26507-0880
304-285-4764

626 Cochrans Mill Road
P.O. Box 10940
Pittsburgh, PA 15236-0940
412-386-4687

Program staff are also located in
Houston, Texas and Anchorage, Alaska

WEBSITE: *www.netl.doe.gov*

CONTACTS

Anthony Armaly
NETL RWFI Federal Coordinator
412-386-6040
Anthony.Armaly@netl.doe.gov

Kirk Gerdes
Regional Workforce Initiative Coordinator
304-285-4342
Kirk.Gerdes@netl.doe.gov

Mike Knaggs
Associate Director of Partnerships
304-285-4926
Michael.Knaggs@netl.doe.gov

Matthew Garcia
Regional Workforce Initiative Consultant
956-314-0645
Matthew.Garcia@netl.doe.gov