NATIONAL ENERGY TECHNOLOGY LABORATORY

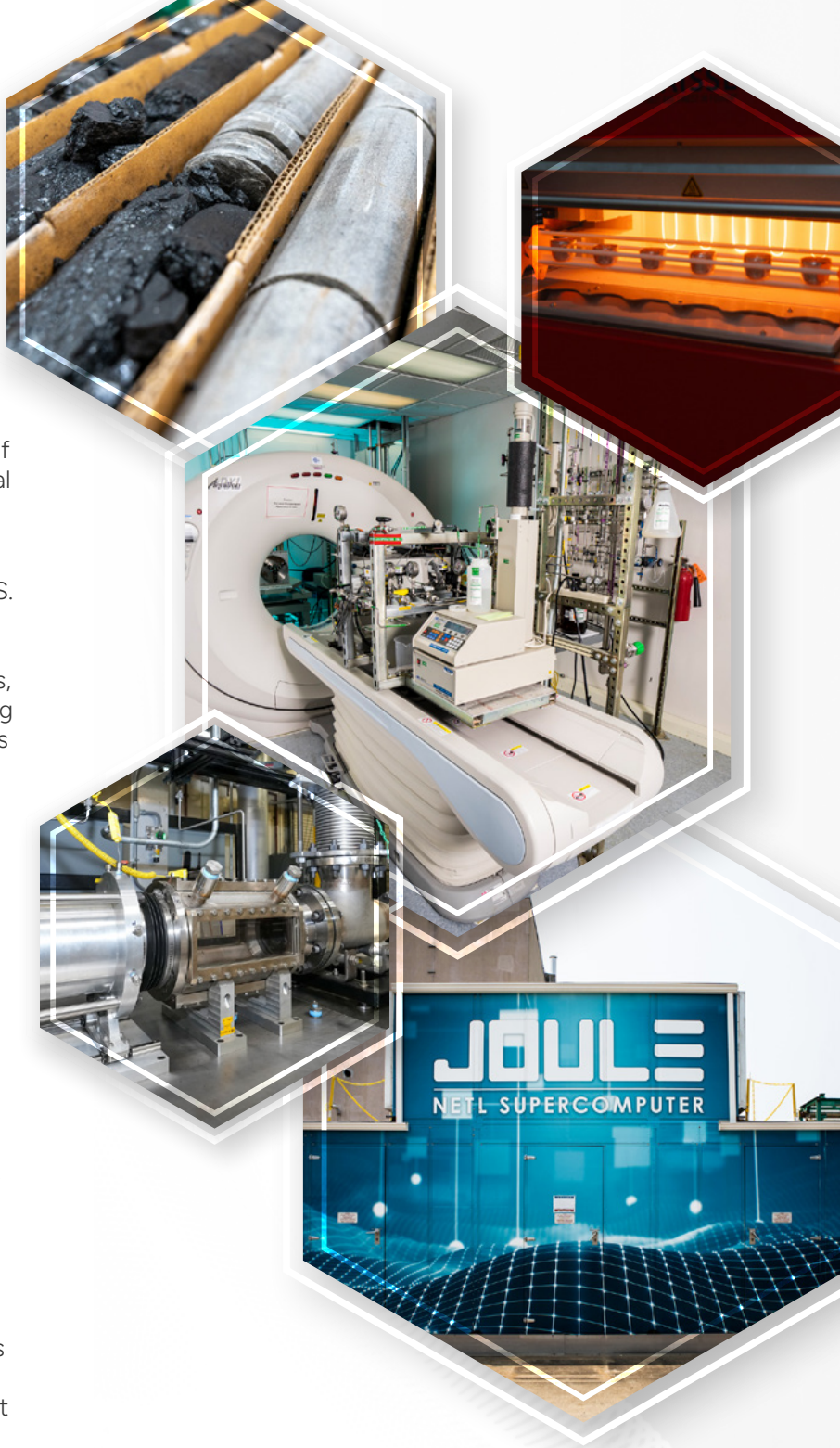
Overview

NETL is a U.S. Department of Energy (DOE) national laboratory dedicated to unleashing the full potential of America's hydrocarbon, geothermal and critical mineral resources to provide affordable, reliable and secure energy.

The Laboratory traces its origins to 1910, when the U.S. Bureau of Mines was established to improve coal-mining safety and later, during WWII, made an impact by developing synthetic liquid fuels. Over the decades, NETL evolved with a mission to deliver groundbreaking innovations in advanced energy systems and materials science. From advancing shale gas production technologies to developing advanced alloys that can withstand extreme temperatures and pressures, NETL has played a pivotal role in shaping the nation's energy landscape.

Today, NETL specializes in technologies that advance energy goals for hydrocarbon, geothermal and critical mineral resources. The Lab conducts research across fundamental areas, including computational science and engineering, energy conversion, geological and environmental systems, materials engineering, and systems analysis. To advance applied research and technology solutions crucial for affordable, reliable and secure energy, NETL hosts Centers of Excellence (CoE) in Coal, Oil & Gas, Critical Minerals & Advanced Alloys, and Geothermal Energy.

Through forward-thinking research, NETL strives to ensure a robust economy and to strengthen national security by developing advanced energy technologies that support DOE's mission while fostering collaborations that will lead to a resilient and abundant energy future for the nation.



People

NETL operates as a government-owned, government-operated (GOGO) lab, managing a workforce of approximately 1,500 federal and site-support contractor staff across its three sites in Albany, Oregon; Morgantown, West Virginia; and Pittsburgh, Pennsylvania. The Lab's team includes scientists, engineers, economists, research support staff, technical project managers, procurement experts and attorneys, as well as postgraduate, graduate and undergraduate interns, all working to advance energy technology innovation and research.

Centers of Excellence

The CoE at NETL are aligned with DOE's strategic goals and serve as a hub for engagement with industry, academia and other stakeholders. The CoE are further supported by NETL's strength in systems analysis, through which the Lab advances American innovation through insightful analysis of complex, multiscale energy systems.

Coal — Deliver integrated research and technology solutions that advance and expand the efficient use of coal resources in alignment with DOE priorities and industrial needs.

Oil & Gas — Enable secure, efficient and low-impact oil and gas systems through integrated research aligned with DOE priorities and industrial needs.

Critical Minerals & Advanced Alloys — Advance secure and resilient critical mineral supply chains through integrated research and technology development.

Geothermal — Accelerate geothermal energy development through integrated research, technology innovation and strategic partnerships.

Achievements

Over the past 25 years, NETL's scientists have earned 60 R&D 100 Awards, as well as 53 regional and national awards from the Federal Laboratory Consortium. These honors, in addition to many other individual awards, recognize NETL's contribution to our nation's energy landscape. Most recently, NETL researchers have:

- Harnessed cutting-edge microwave research capabilities to revolutionize ammonia production, significantly reducing costs by **more than 25%.**
- Developed a low-cost process for converting coal tar waste into high-quality graphene material that can enhance the performance of energy-storing supercapacitor systems by **up to 55%.**
- Developed an exceptionally robust pipeline steel by strategically adding cerium to increase strength by **more than 30%.**



DOE Program Execution

As the only GOGO laboratory within the national lab system, NETL uniquely functions as a DOE field office supporting the Hydrocarbons and Geothermal Energy Office and other DOE offices in all aspects of program execution. This includes planning, development, issuance, application evaluation, selections, awards and project management for notices of funding opportunities. NETL has the ability to seamlessly integrate research, project management, procurement, legal and National Environmental Policy Act (NEPA) functions into an integrated project team approach, ensuring the efficient execution of DOE initiatives.

Collaborations

NETL collaborates with industry, academia, national laboratories and government agencies to advance energy innovation. These partnerships leverage NETL's expertise, facilities and research capabilities to tackle critical energy challenges. Through these partnerships, stakeholders can:

- Partner with NETL on R&D projects.
- Access NETL's facilities, equipment and research services.
- Establish agreements that define collaboration terms and maximize research impact.
- Secure and license NETL's intellectual property.