

NATIONAL ENERGY TECHNOLOGY LABORATORY (DOE)

NETL focuses a wealth of scientific and engineering talent on creating commercially viable solutions to national energy and environmental problems. The majority of NETL's projects are carried out through contracts with corporations, small business, universities, non-profit organizations, and other national laboratories and government agencies. These contracts – awarded through competitive solicitation processes – constitute an R&D portfolio that will return benefits to our Nation for generations to come.

Oil and Natural Gas Supply

Our nation still has plentiful domestic supplies of oil and natural gas. Yet recovery of these resources is increasingly complex and expensive, and must be accomplished in environmentally responsible ways. NETL's R&D and field demonstration projects are designed to enhance supplies through advanced exploration and production; investigate potential new energy resources such as methane hydrates; and ensure the Nation's aging natural gas infrastructure is able to safely and reliably deliver gas.

Coal and Power Systems

Technologies being developed and demonstrated by NETL and its partners can substantially improve the efficiency and environmental performance of coal power generation systems. This RD&D will enable use of our most abundant energy resource – coal – to meet growing electricity demand and to lay the foundation for a sustainable hydrogen economy. Focus is on providing coal-based technologies that essentially eliminate pollutant emissions, manage carbon emissions, and remain cost competitive.

Carbon Sequestration

NETL manages a portfolio of laboratory and field R&D focused on technologies with great potential for reducing greenhouse gas emissions and controlling global climate change. Most efforts focus on capturing carbon dioxide from large stationary sources such as power plants, and sequestering it using geologic, terrestrial, or oceanic approaches. Control of fugitive methane emissions is also addressed.

Hydrogen and Clean Fuels

NETL manages a portfolio of R&D to facilitate production of hydrogen from coal fuels for use in fuel cells and other power generation systems. The goal of this R&D is to ensure that hydrogen-from-coal plants will have very low levels of pollutant emissions, be capable of capturing and sequestering carbon dioxide, and provide affordable products.