



Building a Clean Energy and Industrial Economy and the Supporting Role of the U.S. Department of Energy’s Office of Fossil Energy and Carbon Management

INTRODUCTION

The U.S. Department of Energy’s (DOE’s) [Office of Fossil Energy and Carbon Management](#) (FECM) is dedicated to minimizing the environmental and climate impacts of fossil fuels and industrial processes while working to achieve net-zero emissions across the U.S. economy. In line with this mission, FECM developed the “**Appalachia Regional Report: Building a Clean Energy and Industrial Economy and the Supporting Role of the U.S. Department of Energy’s Office of Fossil Energy and Carbon Management.**”



The Appalachia Region, as defined in this report, includes **West Virginia, Ohio, Kentucky, and Pennsylvania**. The report draws on the region’s extensive history in mining, energy, and industrial production to highlight opportunities for Appalachia’s redevelopment. This involves harnessing existing industries to turn challenges into new economic opportunities, building clean energy and industrial supply chains, and sustaining and creating high-wage jobs. Additionally, by referencing energy plans and climate strategies across Appalachia, this report identifies priority areas for the region and aligns them with FECM’s research, development, and demonstration portfolio to curate relevant solutions.

KEY FINDINGS – The Appalachia Regional Report highlights several key findings. For example, within the region, clustered facilities spanning multiple industries and located close to disadvantaged communities, could share

carbon management infrastructure. This would create the opportunity for the manufacture of competitive lower carbon products and support high-wage jobs, communities, and regional supply chains. Additionally, since Appalachia has 70% of U.S. coal mines and produces 34% of U.S. natural gas from its onshore fields, the region is well positioned to produce rare earth elements and critical minerals from energy and mining waste streams (e.g., coal ash, acid mine drainage, and produced water) while remediating land and water.

FECM SUPPORT – As outlined throughout this report, FECM’s focus areas and portfolio of technologies are well-aligned with Appalachia’s energy and industrial mix, local infrastructure, and resources. These efforts will help the region engage communities, create new jobs, build new supply chains, and invest in supporting university research and development and innovation. Further, through DOE’s [Community Benefit Plans](#) and [Community Benefit Agreements](#), FECM illustrates how the design and scope of a project can maximize economic, environmental, and societal benefits for communities in the region, contributing to project success and growth.

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The Appalachia Regional Report is available for download on FECM’s website: energy.gov/FECM/reports-and-studies.

Given the rapidly evolving market, technology, and policy environment, the regional reports are intended to be “living documents” and will be updated as the outlook on each region evolves. Please note these reports and regional decarbonization workshops do not represent DOE policy or strategy, but rather are a representation of DOE’s current understanding based on a synthesis of available facts.

FECM welcomes input and feedback on content for each of the reports. Please direct all inquiries and input to FECMRegionalReport@hq.doe.gov. Input and feedback should not include business-sensitive information, trade secrets, proprietary, or otherwise confidential information. Please note that input and feedback provided is subject to the Freedom of Information Act.

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