## THE HEARTLAND 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

## 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



"Heartland 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 Heartland region, as defined in this report, includes Montana, North Dakota, South Dakota, Minnesota, Iowa, Nebraska, Kansas, and Illinois. It draws on the region's significant traditional and emerging energy resources to highlight opportunities for the Heartland's development as it relates to the carbon management industry and critical minerals production and processing. Coupled with its significant geological formations and commodities, these resources support current efforts to decarbonize and scale clean energy technologies. Additionally, in addressing the region's unique industry, energy mix, and energy activities, this report identifies priorities for the Heartland and aligns them with FECM's research, development, and demonstration portfolio to help advance relevant solutions.

**KEY FINDINGS** – The Heartland Regional Report highlights several key findings. For example, carbon

capture and storage offers an opportunity to reduce the greenhouse gas footprint of bioethanol. Moreover, lower carbon bioethanol and other agricultural resources, along with forestry waste, can be utilized to produce new fuels and chemicals, addressing hard to abate sectors like aviation. Additionally, extracting critical minerals from coal, coal byproducts, coal waste, and produced waters from oil and gas production could introduce and support new manufacturing and domestic supply chains.

FECM SUPPORT – As outlined throughout this report, FECM's focus areas and portfolio of technologies are well-aligned with the Heartland'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 university and private sector 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.

## DOWNLOAD THE REPORT AND SHARE YOUR THOUGHTS

The Heartland 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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