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**STUDY: AGGRESSIVE CARBON CAPTURE RD&D CAN SPUR MASSIVE  
ECONOMIC BENEFITS**

Accelerating research, development and deployment of advanced power cycles and carbon capture technologies for use in fossil power generation would dramatically drive domestic oil production, jobs and provide a significant boost to GDP while trapping significant amounts of heat-trapping carbon emissions, according to a new study.

The key findings from “[Making Carbon a Commodity: the Potential of Carbon Capture RD&D](#)” sponsored by the Carbon Utilization Research Council and ClearPath Foundation - with support from the International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers & Helpers; the International Brotherhood of Electrical Workers and the United Mine Workers of America - estimate the benefits of an aggressive carbon capture RD&D program.

Under the scenarios evaluated, the study’s modeling provided by NERA Economic Consulting and Advanced Resources International forecasts market-driven deployment of up to 87 gigawatts with carbon capture technologies over the next two decades.

Under an aggressive RD&D scenario, the development generated multiple direct and indirect benefits:

- Up to a 40% increase in domestic coal production for power from 2020 to 2040;
- 100 million to 923 million barrels of additional domestic oil produced annually by 2040;
- 270,000 to 780,000 new jobs and an increase of \$70 billion to \$190 billion in annual gross domestic product (GDP) associated with enhanced oil recovery field operations by 2040;
- Aggressive RD&D reduced the national retail cost of electricity 1.1% to 2.0% by 2040, which on its own is forecasted to increase annual GDP by an additional

\$30 billion to 55 billion and create 210,000 to 380,000 more jobs over a baseline RD&D case.

“This study reinforces the importance of robust RD&D funding,” CURC Executive Director Shannon Angielski said. “If we look at past success stories, especially with the development of scrubber technologies and increased efficiency in the use of our fossil energy resources, it is clear that public-private sector partnerships have been a driving force in the commercial deployment of energy technologies that have meaningful economic and environmental impacts.”

“Carbon capture isn’t just a vital tool to decarbonize our economy, it can also dramatically grow U.S. jobs, energy production, clean baseload power and the overall economy,” ClearPath Executive Director Rich Powell said.

Importantly, the study found these benefits over the next two decades would be lower under less aggressive RD&D scenarios. With less aggressive rates of RD&D, the analysis found significantly less deployment of carbon capture technology by 2040. Under scenarios with higher technology costs, the study forecasted a roughly two-thirds reduction in new coal and natural gas with carbon capture.

In all scenarios, carbon capture power projects were driven by market decisions and only built when it was the lowest lifetime cost option and associated enhanced oil recovery regions did not exceed production limits. High rates of economic growth and high oil prices were other factors that resulted in more robust carbon capture deployment in the tested scenarios.

Realizing the benefits in the real world will depend on a number of policy outcomes, including:

- Public-private partnerships spanning across the entire RD&D cycle
- A more aggressive commitment for the Department of Energy’s Carbon Capture and Power Systems program
- Inclusion of carbon capture retrofits under the New Source Review program and other streamlined rules for carbon dioxide pipelines
- Favorable IRS interpretation of the revamped 45Q carbon capture tax credit

CURC and the Electric Power Research Institute (EPRI) also have released a [2018 Advanced Fossil Energy Technology Roadmap](#) describing enabling technology pathways and resources needed to achieve the cost reductions envisioned in this study.

## **About ClearPath**

Founded by businessman Jay Faison, ClearPath's mission is to accelerate conservative clean energy solutions. To advance the mission, ClearPath develops cutting-edge policy and messaging and works with policymakers and industry. Learn more at [clearpath.org](http://clearpath.org). Follow us on Twitter: [@JayFaison1](https://twitter.com/JayFaison1), [@powellrich](https://twitter.com/powellrich), [@ClearPathAction](https://twitter.com/ClearPathAction)

## **About CURC**

The Carbon Utilization Research Council (CURC) is an industry coalition focused on technology solutions for the responsible use of our fossil energy resources to support our nation's need for reliable and affordable energy. For more information, please visit [www.curc.net](http://www.curc.net).