

The Honorable John Barrasso
Chairman, Committee on Environment and Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Thomas Carper
Ranking Member, Committee on Environment and Public Works
United States Senate
456 Dirksen Senate Office Building
Washington, DC 20510

Re: The “Utilizing Significant Emissions with Innovative Technologies Act” or the “USE IT Act”

On behalf of Clean Water Action and Earthjustice, and the millions of members we represent, we write to express our outstanding concerns regarding particular aspects of S. 2602, the “Utilizing Significant Emissions with Innovative Technologies Act” or the “USE IT Act,” that have yet to be addressed.

Research and Budget Priorities

We support the bill’s direct air capture research provisions intended reduce technology costs and carbon utilization research intended to increase technology options. We are, however, concerned that the bill language under Section 101, subparagraph (C)(i)(III), would consider enhanced oil recovery (EOR) as a carbon dioxide utilization technology and therefore eligible for limited research dollars. Enhanced oil recovery is a widely deployed, mature technology that does not merit further research and development funds from the federal government.¹ The Department of Energy (DOE) is already funding seven “Next Generation” CO₂-EOR research projects.² This is just one aspect of DOE’s Office of Fossil Energy, which is dedicated to advancing extractive energy.

In order to complement the bill’s support for pulling carbon out of the atmosphere, EPA’s long neglected Underground Injection Control (UIC) program should receive increased funding. This is the program ultimately responsible for ensuring CO₂ kept out of the atmosphere is injected safely and remains permanently underground. The UIC program regulates the construction, operation, permitting and closure of injection wells and outlays grants to help states effectively manage and enforce their own UIC programs. Since the early 1990s, UIC funding has remained flat even as injection activity increased substantially. EPA Administrator Scott Pruitt proposed cutting the UIC program by 30 percent in the Administration’s FY2018 and FY2019 budget proposals.³

¹ The first major CO₂-EOR project was in West Texas in 1972. Since then 130 additional EOR projects have been developed in 10 states. By injecting CO₂, these projects produce roughly 400,000 barrels of oil per day. CO₂-EOR technology represents over four percent of domestic production.

² U.S. Department of Energy, “Enhanced Oil Recovery,” <https://www.energy.gov/fe/science-innovation/oil-gas-research/enhanced-oil-recovery>.

³ U.S. Environmental Protection Agency, “FY 2018 EPA Budget in Brief,” May 2017. <https://www.epa.gov/sites/production/files/2017-05/documents/fy-2018-budget-in-brief.pdf>. Clean Water Action, “Cuts to Water Programs in the Trump FY2019 Budget Proposal,” <https://cleanwater.org/features/cuts-water-programs-trump-fy2019-budget-proposal>.

Addressing Climate Change by Expanding the Oil Industry

It is important to acknowledge the strategy behind the oil industry's support for carbon capture and the USE IT Act. This is showcased in the State CO₂-EOR Deployment Working Group's pipeline build out proposal.⁴ The proposed pipeline network, which the USE It Act could jump start, includes five "trunk pipelines" to EOR regions. The Working Group is clear that the pipelines are needed to expand the EOR industry with consistent supplies of CO₂:

"A vital element in the design of the larger pipeline network is the enormous potential of the Permian Basin region and its proven CO₂ potential and vast resources of residual oil zones."

The industry is also clear; EOR is not solely for aging conventional fields:

"Successful commercialization of CO₂-EOR in unconventional formations would lead to substantial increases in domestic oil production and carbon storage potential..."⁵

USE It Act stakeholders virtually all agree that this is oil that would otherwise likely remain in the ground. According to the Working Group, "natural geologic supplies of CO₂ are constrained, so the potential to grow the EOR industry hinges on increasing the supply of anthropogenic CO₂..."⁶

Further, the International Energy Agency determined that one of the drivers of the new 45Q legislation was to "unlock demand that is currently limited by the constraints on natural CO₂..."⁷

Ultimately, the goal is to access more than 81 billion barrels of economically recoverable oil, more than double the amount of total US proven reserves reported in 2014. The industry forecasts an increase in production by 375 million barrels annually by 2030, tripling the size of the EOR industry.⁸ The Working Group advocates for infrastructure and federal incentives, like those included in the USE IT Act, which could eventually lead to \$5 billion worth of oil production per year.⁹

Dead-end Pipelines

Part of the underlying support for CO₂-EOR (as it relates to CCS industry viability) is that the same productive formations could someday be converted to long-term storage. However, not every EOR field is suitable for permanent mass storage of CO₂. The capacity for continuous high pressured CO₂ injection for storage over many decades is not uniform across EOR operations.

A 2010 DOE paper determined constructing CO₂ pipelines to oil fields in order to expand CO₂-EOR operations does not make sense as a climate mitigation tool "without establishing that large additional suitable storage capacity exists in the area that can handle storage demand over the long term."

⁴ State CO₂-EOR Deployment Working Group is a project staffed by the Great Plains Institute, a convening member of the Carbon Capture Coalition. The Working Group includes participants from fourteen states with current EOR development or potential.

⁵ State CO₂-EOR Deployment Working Group, "Putting the Puzzle Together: State and Federal Policy Drivers for Growing America's Carbon Capture and CO₂-EOR Industry," p 23.

⁶ *Id.* p 26.

⁷ International Energy Agency, "Commentary: US budget bill may help carbon capture get back on track," March 12, 2018. <https://www.iea.org/newsroom/news/2018/march/commentary-us-budget-bill-may-help-carbon-capture-get-back-on-track.html>.

⁸ State Co₂-EOR Deployment Working Group, "21st Century Energy Infrastructure: Policy Recommendations for Development of American CO₂ Pipeline Networks," February 2017.

⁹ *Id.* p 21.

Furthermore, there are a number of geologic and well integrity issues that can compromise a field's existing storage capacity that must be evaluated.¹⁰

Right now we do not see widespread efforts on the part of CO₂ pipeline companies or their partner EOR operators to evaluate eventual conversion of an EOR field to long term permanent storage. This evaluation would have to be done on a field by field basis determined by individual field's geology. The oil industry has also indicated it plans to exploit unconventional resources. This complicates the CO₂ storage rationale as CO₂ storage potential in unconventional shale is not well understood.

Although permanent sequestration is the purported end goal of the pipelines advanced by the USE IT Act, saline aquifer storage without oil production is rarely mentioned. The State CO₂-EOR Deployment Working Group even indicated the proposed pipeline network could divert CO₂ away from the only permanent geologic sequestration well in the country and instead use it as an input for more oil production.¹¹

Recent research from University of Texas demonstrated that while new tax credits will spur more CCS and EOR projects, permanent sequestration "might not be profitable in the long-term because it has to pay to sequester the CO₂ and continue to service a higher capital cost."¹² Thus more evidence that the current push for capturing carbon is designed to immediately bolster the fossil fuel industry while only theoretically providing broad carbon sequestration benefits.

Our concern regarding these aspects of the legislation does not preclude our support for carbon utilization technologies that lock up carbon permanently or carbon removal technology that may be necessary in the second half of this century. We simply cannot meet the global societal imperative of arresting climate change by facilitating an expansion of the fossil fuel industry. Instead of incentivizing fossil fuel production, we should tackle near term emissions and align oil demand and production with meeting our Paris Agreement commitments.

Sincerely,

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Clean Water Action

Sarah Saylor
Senior Legislative Representative
Earthjustice

¹⁰White Paper, A Scott Anderson, Environmental Defense Fund, "Carbon Sequestration in Oil and Gas Fields (in Conjunction with EOR and Otherwise): Policy and Regulation Issues." MIT. 2010.

¹¹ State CO₂-EOR Deployment Working Group, p 18.

¹² Joshua Rhodes, "New Federal Budget Puts Price on Carbon," University of Texas at Austin Energy Institute. March 9, 2018. <https://energy.utexas.edu/news/new-federal-budget-puts-price-carbon>.