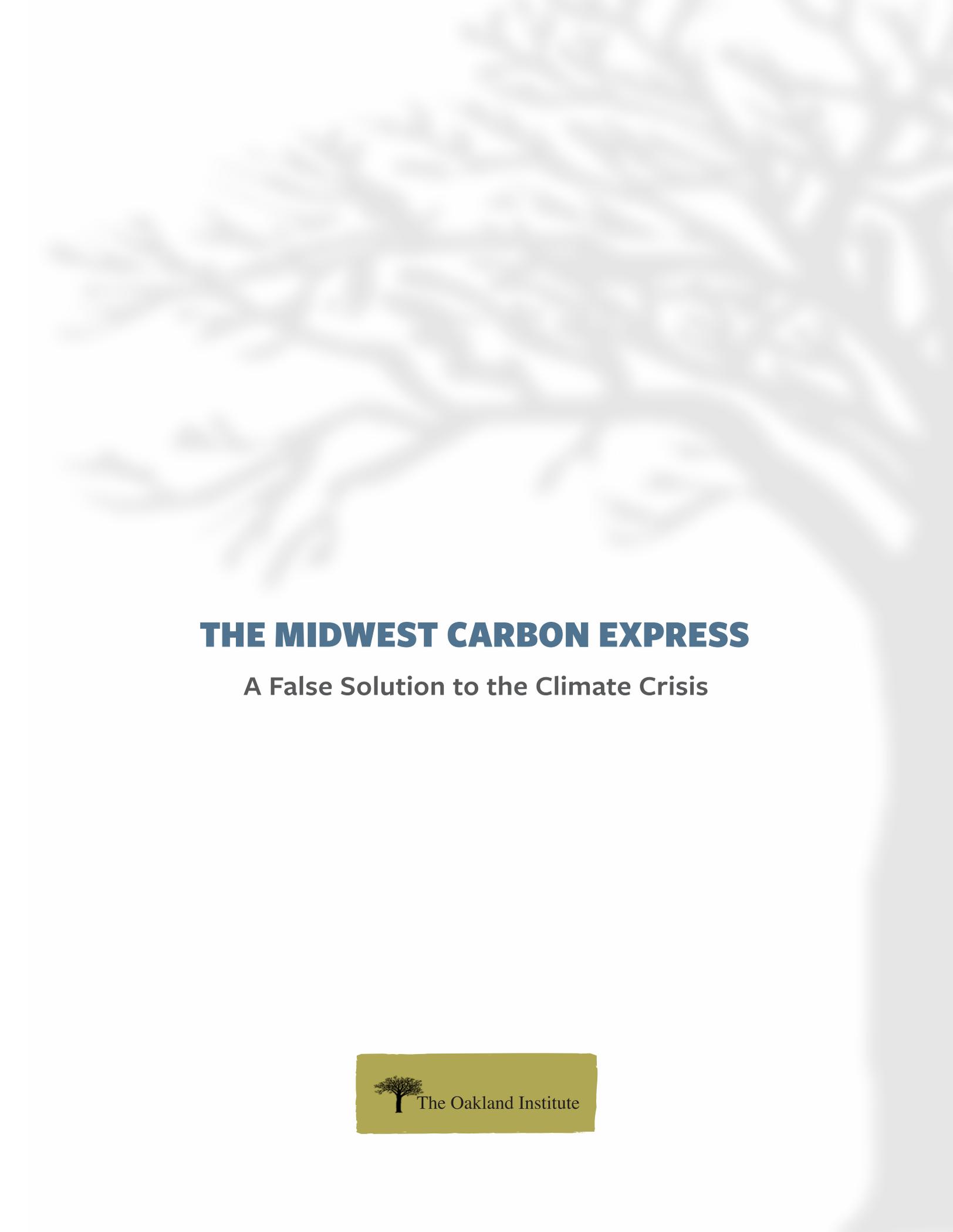


THE MIDWEST CARBON EXPRESS

A FALSE SOLUTION TO THE CLIMATE CRISIS





THE MIDWEST CARBON EXPRESS

A False Solution to the Climate Crisis



The Oakland Institute

INTRODUCTION

From entire towns wiped out by unprecedented wildfires to droughts, flooding, and sea level rise threatening billions of livelihoods, the devastating impact of the climate crisis has engulfed communities across the globe. A recent report of the Intergovernmental Panel on Climate Change (IPCC) warns that

global warming of 1.5°C and 2°C will be exceeded during the 21st century unless major reductions in CO₂ and other greenhouse gas emissions rapidly occur.¹ The need for systemic change is urgent. There are many pathways to reduce CO₂ emissions, but time and resources cannot be wasted on false solutions.

CARBON CAPTURE AND STORAGE—A SILVER BULLET SOLUTION?

Carbon capture and storage (CCS) is being showcased as a crucial solution to the climate crisis. The basic premise of CCS is to capture carbon—typically from large point sources such as fossil fuel, chemical, or biomass plants—and then transfer it through pipelines to be “safely” stored underground.

While the first CCS project dates back to 1972, proposed new projects have exploded in recent years. In 2018, US Congress increased the incentives through the 45Q tax credit for capturing and storing carbon underground.² The following year, the California’s Air and Resource Board adopted a new protocol that allows ethanol facilities that use CCS to generate tradable credits they can sell in California to producers of dirtier fuels that do not meet the state’s low carbon fuel standards.³ These

policies and emission reduction targets led to the announcement of over 40 CCS projects in North America in 2021.⁴ Europe currently has 35 projects in development.⁵

Key questions, however, must be explored to fully understand the ramifications of such projects. For instance, what role can and should CCS play in climate mitigation strategies? Who are the main proponents of its implementation? At what scale has the technology succeeded and is it worth subsidizing with public funds? Critically, do the communities, for instance the Indigenous, farming, and others whose land will be impacted by pipelines, support these plans?

Examining the largest CCS project currently moving forward will help shed light on these pressing issues.

OVERVIEW OF THE CARBON CAPTURE AND STORAGE PROCESS

CAPTURE

CO₂ is captured before it is released into the atmosphere.



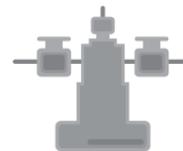
TRANSPORT

CO₂ is channeled to the sequestration site via pipeline, the safest mode of transportation.



STORE

CO₂ is safely and permanently stored underground in North Dakota.



Source: Summit Carbon Solutions <https://summitcarbonsolutions.com/the-project/>



THE CASE OF THE MIDWEST CARBON EXPRESS

Summit Carbon Solutions (SCS) is developing a new carbon capture and storage pipeline, measuring nearly 2,000 miles, that will cross nearly a third of the counties in Iowa, before expanding to Minnesota, North Dakota, South Dakota, and Nebraska.⁶ Known as the “Midwest Carbon Express,” the US\$4.5 billion project will be the largest carbon capture and storage project in the world.

The Midwest Carbon Express plans to capture the carbon emitted from biorefineries while they convert biomass into fuels and other products. Summit Carbon Solutions has reached agreements with 31 biorefineries (majority ethanol plants⁷) located across North Dakota, South Dakota, Iowa, Minnesota, and Nebraska.⁸ The pipeline, ranging in size from four to 24 inches in diameter and placed at least four feet underground,⁹ will compress the captured emissions from the ethanol plants into a liquid and transport it to North Dakota where, according to SCS, it will be “permanently and safely stored underground in deep geologic storage locations.”¹⁰

Summit Carbon Solutions claims the Midwest Carbon Express pipeline will “bolster the ethanol and agriculture industries,” by making the ethanol produced at their partner facilities “net-zero fuel” by 2030, thereby allowing the plants to access new markets with low-carbon fuel standards.¹¹

Who is Behind Summit Carbon Solutions?

Summit Carbon Solutions was formed in 2020 by the Ames, Iowa-based Summit Agricultural Group, an agriculture and renewable energy business with farmland holdings across North and South America. The Group additionally “supports capital investments with strategic private equity partnerships and manages agricultural assets, including extensive beef, pork

and grain production facilities.”¹² Billing itself as “among the most successful and diversified agribusinesses in the Midwest,” Summit Agriculture Group lists more than US\$700 million in assets.¹³

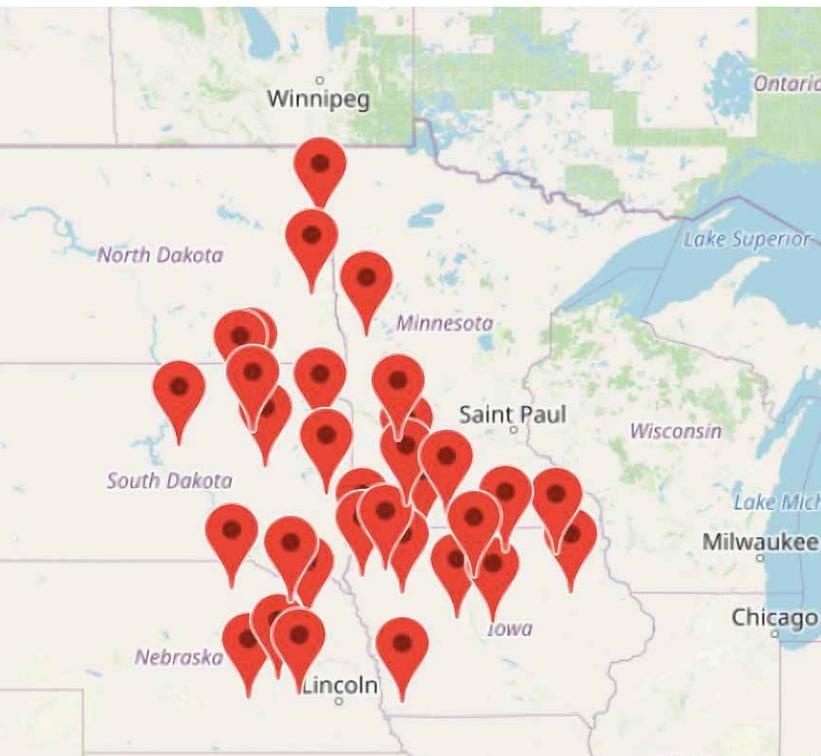


Bruce Rastetter. Source: <https://www.summitag.com/bruce-rastetter>

Bruce Rastetter is the founder and CEO of Summit Agriculture Group. A major figure in agribusiness and a conservative political “influencer”¹⁴ in Iowa, Rastetter began

his career by founding Heartland Pork Enterprises.¹⁵ CEO until 2004, Rastetter grew the company to one of the largest pork producers in the United States.¹⁶ He additionally founded Hawkeye Renewables, one of the country’s largest ethanol companies.¹⁷ In 2009, Hawkeye filed for bankruptcy¹⁸ and the following year sold its two Iowa production facilities to an affiliate of Koch Industries.¹⁹

In 2011, Rastetter shifted part of his focus to Africa, where he was at the center of a disastrous large-scale agriculture project in Tanzania that is examined later in the brief. Summit Agriculture Group has also been active in Brazil. In 2014, Summit Brazil Renewables, LLC—a subsidiary of Summit Agriculture Group—partnered with Brazilian agribusiness company Fiagril (now under the name Tapajós Participações) to create Fueling Sustainability (FS) Bioenergia. In 2016, FS Bioenergia opened Brazil’s first corn-based ethanol plant in Mato Grosso State and by 2021 expanded to three production facilities across the country, making it one of Brazil’s largest ethanol producing companies.²⁰ In 2021, FS Bioenergia announced plans to install a carbon capture system at its biofuel plant in Lucas do Rio Verde plant in Mato Grosso State.²¹



Location of biorefinery partners that the MCE will collect and transport carbon from to store in North Dakota. Source: Summit Carbon Solutions <https://summitcarbonsolutions.com/our-partners/>



THE MYTH OF CLIMATE BENEFITS OF THE MIDWEST CARBON EXPRESS

CARBON EXPRESS

Summit Carbon Solutions claims the Midwest Carbon Express will have the capacity to capture, transport, and store 12 million metric tons of CO₂ from its 31 partner biorefineries annually—the equivalent of taking 2.6 million cars off the road each year.²² However, like the vast majority of other CCS projects, the Midwest Carbon Express will most likely also be used for enhanced oil recovery (EOR) given Rastetter has indicated that: “Summit is also exploring other options, including injecting the gas into depleted oil fields to boost oil production.”²³ The Midwest Carbon Express would not be alone in using EOR as the majority of carbon captured in CCS projects ends up being used to extract more oil.²⁴ Over 80 percent of CCS projects are tied to EOR—where instead of storing the captured CO₂, it is injected into depleted underground oil reservoirs to boost oil production in currently depleted wells.²⁵ In effect, this application helps prop up the ineffective and environmentally unsustainable fossil fuel energy system.

A 2021 policy brief from the Center for Progressive Reform estimates there are approximately “180,000 wells, known as Class II injection wells, commercially used for enhanced oil

recovery,” compared to just “two active permits in the United States for CCS wells that inject carbon dioxide for long-term storage, known as Class VI injection wells.”²⁶

As the majority of CCS projects in development plan to incorporate EOR, the practice will result in more oil being extracted, making it disastrous from a climate mitigation standpoint. The 45Q Tax Credit, the aforementioned federal incentive for carbon capture, does not require the carbon to be permanently stored.²⁷ Estimates predict that in a few years the majority of the tax credit will be used for EOR projects, resulting in a projected increase in oil production by 50,000 to 100,000 barrels per day.²⁸

Expanding CCS projects will therefore result in more oil extraction and more carbon emissions from the oil burned, releasing that carbon back into the atmosphere, accelerating climate change, and exacerbating existing environmental and social inequities. While Summit Carbon Solutions denies it will use the captured carbon for EOR, Rastetter’s own statement and the economic incentive make it likely that the Midwest Carbon Express will be used for EOR if approved.



Midwest Carbon Express Pipeline Map. Source: Summit Carbon Solutions <https://summitcarbolutions.com/the-project/>



Carbon Capture and Storage: A False Climate Solution

Advocates for the Midwest Carbon Express fail to reckon with the growing body of evidence exposing CCS as a false climate solution. Despite the growing momentum behind CCS, these projects have systematically overpromised and under delivered. There are currently only 26 CCS plants in operation globally—capturing just 0.1 percent of annual fossil fuel emissions.²⁹ Despite billions of taxpayer dollars spent on CCS to date, the technology has failed to significantly reduce CO₂ emissions, as it has “not been proven feasible or economic at scale.”³⁰ The ability to capture and safely contain gas permanently underground has not been proven,³¹ and crucially, the United States currently lacks the necessary regulatory structure to monitor the process.³²

According to a comprehensive brief from the Center for Environmental Law (CIEL), CCS “masks the harmful carbon emissions from the underlying source, enabling that source to continue operating rather than being replaced altogether, while creating additional risks, impacts, and costs associated with the CCS infrastructure itself.”³³ Uncertainties abound regarding the long-term behavior of CO₂ in the subsurface and how leakage rates could potentially increase overtime—opening up the real possibility of “stored” carbon eventually released again.³⁴ Additionally, the injection of carbon dioxide for long-term storage poses a threat to groundwater and drinking water resources.

Applying CCS to industrial sources requires the creation of massive infrastructure and transportation of carbon to storage sites, and injecting it underground poses new environmental, health, and safety hazards in communities targeted for CCS infrastructure. As carbon capture infrastructure needs to be built near emitting sites, facilities would further impact those already burdened by industrial pollution.³⁵ In many cases,³⁶ this will disproportionately impact lower-income, Indigenous, Black, and Brown communities, furthering a vicious cycle of environmental racism.

Throughout the carbon capture and storage process, there are many avenues for CO₂ to escape through leaks and ruptures. CO₂ is classified as an asphyxiant that during and after leaks has devastating impacts on exposed humans, animals, and the environment.³⁷ As CO₂ pipelines expand into populated areas, the impact is already being felt. In February 2020, a CO₂ pipeline in Yazoo County, Mississippi

exploded in a rural area, leading to the hospitalization of 45 people and forcing the evacuation of 300 more.³⁸ Expanding these hazardous pipelines only puts more communities at risk from similar leaks and explosions.

According to CIEL, the promise of CCS is being used to “rationalize and subsidize continued investment in fossil fuel infrastructure that would lock in emissions of CO₂ and other pollutants for decades to come.”³⁹ It is therefore not surprising that the largest proponents of CCS projects are large oil companies such as Shell, Chevron, and Exxon Mobil, which are all involved in similar projects around the globe.⁴⁰ The American Petroleum Institute, the oil industry’s largest lobbying group, has also played a key role in advocating for the technology and public subsidies.⁴¹

According to the Intergovernmental Panel on Climate Change, the emissions reduction pathway with the best chance of keeping warming at or below 1.5°C makes limited to no use of engineered carbon capture technologies.⁴² This pathway involves a rapid phase out of fossil fuels along with limited carbon removal by natural sources such as reforestation. Declining costs of clean energy sources such as wind and solar further render CCS technology irrelevant.⁴³

Thoroughly evaluating the costs and benefits of CCS and the motives driving advocates for the technology expose it as a false and dangerous climate solution. Yet, powerful vested interests continue to push these projects under the guise of necessary climate action.



Protest sign from Iowa. Source: Anonymous



INDIGENOUS AND FARMERS RESISTANCE TO THE MIDWEST CARBON EXPRESS PIPELINE

The Iowa Utilities Board classified the proposed MCE pipeline as a “hazardous liquid pipeline,” which under Iowa law required Summit Carbon Solutions to hold informational meetings in each county where property rights could be affected.⁴⁴ During the initial consultation phase of planning, the Midwest Carbon Express was opposed by a diverse group of stakeholders, including Indigenous communities, Iowa landowners, and environmental groups.

Great Plains Action Society (GPAS), a non-profit advocating for Indigenous communities throughout the Midwest, firmly opposes the Midwest Carbon Express stating it: “only serves the interests of the fossil fuel industry.” Calling instead for a “reduction and phasing out of fossil fuels as a wider part of a just transition,” GPAS labels CCS projects like the Midwest Carbon Express as delaying necessary action. In a statement, GPAS reiterated fossil fuel companies see CCS as a “government bail out with many governmental subsidies providing just the type of perverse incentive for CCS operators to manipulate the system.”

GPAS has additionally cited concerns with other pipeline projects in the area for “degradation of the land, disturbance of sacred ceremonial and burial sites,” concluding “CCS is greenwashing rather than a solution to the climate emergency that Iowans deserve. As Indigenous people we remain committed to the water, the land and the future generations of Iowans.”⁴⁵

Many of the tribes in South Dakota and North Dakota that will be impacted by the MCE have also waged a steadfast mobilization against the Dakota Access Pipeline. As consultations continue and more tribes become aware of the pipeline’s route and impacts, further resistance is likely.

Since the early consultative process, a growing group of Iowa landowners have also organized against the pipeline. While Summit states it will cover costs of lost crop yields and construction damages—100 percent the first year, 80 percent the second and 60 percent the third—farmers remain concerned with the long-term impact the project will have on the soil.⁴⁶ During consultation meetings, farmers vocally opposed the project. C.J. Schelling from Hull, Iowa called the pipeline a “permanent scar” on his land that will last generations, and expressed concern “this pipeline will not add one dollar to the real estate value.”⁴⁷ Another farmer in Cherokee County echoed the sentiment, “Farmland has traditionally been a sound investment, but who would want to buy a farm that has a hazardous material pipeline on it?”⁴⁸

Summit requested the list of impacted landowners be kept confidential. According to the Iowa Sierra Club Chapter, this is to prevent landowners from communicating and organizing against the project.⁴⁹ Opponents of the pipeline still managed to organize with a focus on releasing the names of the impacted landowners and encouraging them to wait before signing voluntary easements on their land. Over 40 landowners and 200 Iowans called for the landowner names to be



Landowners in Linn County put up No Carbon Pipeline signs along the pipeline route. Source: Karmin McShane



released.⁵⁰ In response, Summit maintained that: “facilitating the organization of opponents of the pipeline is not the role of the neutral Board and does not outweigh the privacy interests of the landowners on the mailing list.”⁵¹

In November 2021, in a split vote, the Iowa Board of Utilities agreed to keep the names confidential — prioritizing property owners’ right to privacy over public interest.⁵² The board did however order Summit to release the names of businesses, cities, counties and other government entities that own land in the proposed pathway. In response, Summit sued the Iowa Board of Utilities in district court to keep the entire list confidential.⁵³ While a final ruling has not yet been made, the court has granted temporary injunction keeping the names confidential for the time being.

According to Jess Mazour, conservation program coordinator for the Sierra Club Iowa Chapter, “Since these pipelines have been announced, I have yet to speak with a single landowner who is supportive of the project. Despite what Summit wants the public and our state legislators to believe, the opposition is widespread and diverse. We are Republicans, Democrats,

farmers, environmentalists, young, old and everything in between.”⁵⁴

On February 1, 2022, Summit Carbon Solutions filed its first permit application for the Midwest Carbon Express pipeline to the Iowa Utilities Board. Summit will also need to obtain permits in other states where the pipeline will cross in addition to federal permits for where it passes federal waterways.⁵⁵ In the Iowa permit application, Summit Carbon Solutions requested permission to use eminent domain, indicating that they failed to receive the necessary voluntary easements from landowners.⁵⁶ If eminent domain is granted, Summit will be able to force unwilling landowners to cede the land easements at “fair market value.”⁵⁷ For eminent domain to be granted, the Board will need to determine if the pipeline serves “public purpose,” which the Iowa Supreme Court granted the state the right to do for the Dakota Access Pipeline construction in May 2019.⁵⁸

Despite the opposition and permits required, Rastetter anticipates the pipeline will begin construction in 2023, on schedule to be operational by 2024.⁵⁹



Landowners in the path of the pipelines attend Senate Commerce Committee meeting to ban eminent domain for private projects like the carbon pipelines. Source: Jess Mazour

WITH A LITTLE HELP FROM POLITICAL CONNECTIONS

Summit Carbon Solution's leadership is politically connected and powerful within Iowa. A prolific political donor, Bruce Rastetter has spent millions on federal, state, and local politics over the past two decades.⁶⁰ Rastetter reportedly provided the seed money to start the America Future Fund, a Des Moines-based group that spent millions targeting Democrats and supporting Republicans in congressional races during the 2010 election cycle and has continued to support "conservative and free market ideas."⁶¹ Since 2010, Rastetter has donated over US\$1 million to candidates and political actions committees (PACs) in Iowa, including nearly US\$125,000 to current Republican Governor Kim Reynolds.⁶²

A longtime conservative powerbroker, Rastetter contributed heavily to the Republican Party and Donald Trump during the 2020 election.⁶³ Melanie Sloan, executive director of Citizens for Responsibility and Ethics in Washington, described Rastetter as "a new breed of ultra-rich individuals who can

secretly exert influence by pouring unlimited amounts of money into campaigns."⁶⁴

Alongside Rastetter, Summit Carbon Solutions has several prominent politically connected partners. Jake Ketzner, former chief of staff to Governor Kim Reynolds, is the vice president of government and public affairs for Summit Carbon Solutions.⁶⁵ Former six-term Republican governor of Iowa, Terry Branstad, is an advisor. Branstad appointed two of the three Iowa Utility Board members who will play a key role in deciding if the project can move forward.⁶⁶ Rastetter financially supported Branstad's gubernatorial races — contributing over US\$230,000 between 2009 and 2014.⁶⁷ In 2011, Branstad appointed Rastetter to the Iowa Board of Regents (which oversees Iowa's public universities).⁶⁸ Summit additionally has Democratic connections through their general counsel Jess Vilsack, whose father, Tom Vilsack, is the United States Secretary of Agriculture and previously served two terms as the Governor of Iowa.⁶⁹

RASTETTER'S PAST: THE PROMISE OF AGRISOL TO ENSURE FOOD SECURITY IN TANZANIA

Given lofty promises of potential benefits from the Midwest Carbon Express, it is crucial to examine Rastetter's checkered history on other projects he has helmed. In 2011, Summit Group and Global Agriculture Fund of the Pharos Financial Group, in partnership with AgriSol Energy LLC and the College of Agriculture and Life Sciences at Iowa State University, attempted to lease over 800,000 acres of land for an agriculture enterprise in Tanzania.⁷⁰ Rastetter was at the heart of the deal, serving as CEO of Pharos, co-founder and managing director of AgriSol, and CEO of Summit.⁷¹

The stated goal of the project was to transform Tanzania into a "regional agricultural powerhouse" by combining the country's abundant agricultural natural resources with "modern" farming practices.⁷² AgriSol promised to "unlock the potential" of Tanzania through the use of genetically modified seeds and other technologies to increase yields and reduce labor-intensive agricultural methods.⁷³ Among the benefits promised by AgriSol were opportunities for local farmers, food security, energy security, sustainability, world-class commercial farming, and opportunities to buy commodities at production cost.

The deal was sold to top Tanzanian leadership, including the prime minister of Tanzania, who were flown to Iowa all expenses paid. With promises of wealth and development, the deal required the government

to change Tanzania's regulations on cultivation of GM crops, to grant "Strategic Investor Status" and various financial incentives to AgriSol, cut profit taxes, and even construct rail infrastructure to allow the export of commodities produced.⁷⁴

Potential AgriSol Production Sites

- 3 Sites
 - Katumba
 - Mishamo
 - Lugufu
- Size
 - Katumba: ~ 80,317 Ha
 - Mishamo: ~ 219,800 Ha
 - Lugufu: ~ 25,000 Ha



AgriSol
energy

17

Production sites in Katumba, Mishamo and Lugufu, Tanzania listed in AgriSol's Report to the Prime Minister of Tanzania from January 7, 2011



The deal centered on developing a large agricultural enterprise on what AgriSol described in its business plans and prospectus as three “abandoned refugee camps.”⁷⁵ However, far from being abandoned, the Katumba and Mishamo settlements were in fact thriving communities—home to more than 162,000 smallholder farmers. Additionally, the land that AgriSol sought in Katumba was a part of a protected forest reserve.

The project would have displaced 162,000 people—Burundian refugees who had made that land their home for over 40 years.⁷⁶ The Tanzanian government was promising citizenship to these refugees, contingent on them abandoning their homes and livelihoods so Rastetter could take over their lands, for an extremely low price—22–23 cents an acre.⁷⁷ According to the Iowa Ethics and Campaign Disclosure Board, the deal could have net AgriSol as much as US\$300 million a year.⁷⁸

AgriSol claimed that the Tanzanian government signaled the land would be available and they were not aware of the number of refugees that would need to be relocated. However, internal documents revealed that AgriSol and principal investors were aware of the inhabitants in the lease area from the start of the negotiations.⁷⁹ An August 2010 Memorandum of Understanding between AgriSol and the Mpanda District Council, explicitly indicated that “Katumba and Mishamo are currently under the

process of being closed as refugee settlements and the refugees are being returned to their country of origin (Burundi) or, in the case of those who have opted to stay in Tanzania, being resettled away from Katumba and Mishamo.”⁸⁰

The local communities said that AgriSol and the other investors had not consulted them. The September 2011 Dan Rather Reports, “Trouble on the Land,” confirmed the secrecy: “The Tanzanian villagers living nearby didn’t seem to know much about the pending deal that will supposedly benefit them. We visited one of the villages closest to the land that’s been earmarked for AgriSol. The top elected official there told us no one from the company or the government had ever come to talk to him about the project.”⁸¹

In June 2011, the Oakland Institute revealed how Bruce Rastetter, co-founder of AgriSol, leveraged the involvement of Iowa State University’s College of Agriculture and Life Sciences to provide legitimacy to the deal.⁸² Following this revelation, a Des Moines-based citizen group, Iowa Citizens for Community Improvement (ICCI) filed an ethics complaint against Rastetter for misusing his membership on the Iowa Board of Regents to advance an “African land grab” that involved Iowa State University (ISU).⁸³

While the ethics complaint was ultimately dismissed,⁸⁴ public scrutiny on the deal led Iowa State University’s College of Agriculture and Life Sciences to completely withdraw any support or association with the project in February 2012.⁸⁵ Rastetter was forced to file an expanded financial disclosure filing, after the initial disclosure identified his occupation merely as “farming, self-employed” and included only the phrase “investment income” in response to a question on income sources exceeding US\$1,000.⁸⁶

The updated disclosure described Rastetter’s position as CEO of Summit Farms and the Summit Group, the umbrella organization that controls AgriSol. The project was officially abandoned in 2012 and by 2014 the refugees who faced eviction received Tanzanian citizenship.⁸⁷



Farmers tending to their lands in Katumba, Tanzania in an area AgriSol falsely claimed was “abandoned.”
Source: Trouble on the Land, Dan Rather’s Reports on September 27, 2011



CONCLUSION

Claims such as CCS is a necessary and effective climate mitigation strategy, are not supported by evidence. In addition to Summit Carbon Solutions, several other companies are also seeking approval for separate CCS pipelines that would cross multiple states in the Midwest if approved. The ultimate fate of the Midwest Carbon Express CO₂ pipeline is expected to be decided in 2022. If built, residents across the Midwest will be taking the risks associated with pipelines—including potential leaks, decreased property and crop values and the likely allocation of public funds towards the project, while Summit Carbon Solutions and Bruce Rastetter will reap the profits. The indication Rastetter has given towards using the captured carbon for enhanced oil recovery negates any potential climate mitigation benefit from the project.

Given Rastetter's past ventures, it should be clear that personal profits take precedence over the common good. As a wealthy, politically connected, agribusiness baron, Rastetter's success has been built via marginalizing small

farmers from Iowa to Tanzania. Livestock family farmers across Iowa have not forgotten the role Rastetter played driving them out of business while he was at the helm of Heartland Pork, which rapidly consolidated the industry.⁸⁸ Only sustained citizen action against AgriSol's project in Tanzania prevented mass displacement for over 162,000 smallholder farmers. The promises he makes now to sell the Midwest Carbon Express must be closely scrutinized and resisted. Residents of the five impacted states must decide if they want to cede control over the health of their land to Rastetter, given his track record.

The world has already been irreversibly altered by climate change. There is no time to waste on false solutions promoted by the same interests who have brought us to this catastrophe. There is an urgent need to radically change course. Indigenous communities and family farmers that depend on the land for their livelihoods must lead the way to map out a future free of fossil fuels.



Carbon pipeline protest in Butler County, Iowa. Source: Anonymous



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