Waxwing Consulting LLC

Carbon Capture

What Communities Need to Know

Some people think carbon capture is a key solution for climate change. However, fossil fuel companies in the U.S. use carbon capture technology to continue harmful practices that strengthen fossil fuel reliance, promote monoculture farming, and boost the power of big corporations. It also distracts from the goal of reducing the sources of greenhouse emissions, by making people think that carbon can just be removed from the atmosphere after it is emitted.

What is Carbon Capture?

Carbon capture can refer to a collection of technologies intended to reduce carbon dioxide (CO_2) levels in the atmosphere, either by capturing the CO_2 from fossil fuels before it is released into the atmosphere, or by removing CO_2 that is already in the atmosphere.

Carbon Capture

In this brief, we're referring to technologies that capture CO_2 before or during combustion.

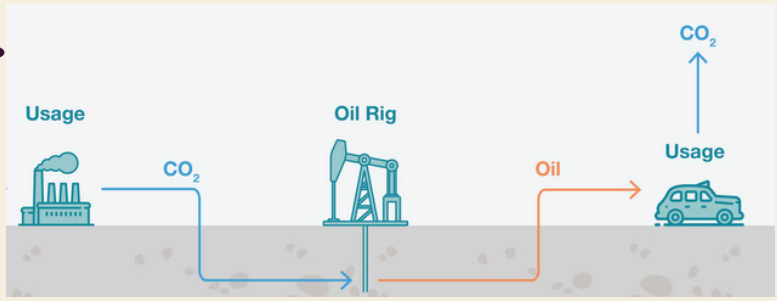
Carbon Removal

"Carbon removal" better describes technology that removes carbon after it's already been released into the air. You might be imagining something like a giant air filter. A technology like that does exist, but so far it is too expensive and uses too much energy for the volume of CO_2 that it can capture. We're not focusing on carbon removal in this fact sheet. (Another example of carbon removal that already exists in nature would be a tree!)

There are typically two options for captured carbon:

1 **It can be stored...**
(often deep underground)

2 **...or it can be 'put to use,' often by injecting it underground to pump out even more oil.**



Source: International Energy Agency (IEA)

Enhanced oil recovery (EOR) pumps captured carbon underground to push out even more oil.

Is Carbon Capture a Climate Solution?

Supporters say it is a climate solution because...

- ...it could directly reduce the emissions of factories and industries.
- ...it may have health benefits by cutting local air pollution.

However, while carbon capture in theory could reduce emissions, **the vast majority of the carbon captured in the U.S. is currently used for enhanced oil recovery (EOR), canceling out much of the supposed climate benefits and further entrenching our reliance on fossil fuels.**

We'll talk more about enhanced oil recovery on the next page!

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Enhanced Oil Recovery (EOR)

Enhanced oil recovery is the practice of injecting gas (CO_2) into oil reservoirs to **extract additional oil** that is not recoverable through conventional methods. **EOR contributes to greenhouse gas emissions and significantly extends the lifespan of oil production facilities and the dependency on fossil fuels.**

EOR Projects

Clean Carbon Capture

Out of the 15 operating carbon capture plants in the US, 13 of them use EOR. That's ~87%!

Environmental Justice Considerations

EOR makes it easier for companies to hide how much they are polluting

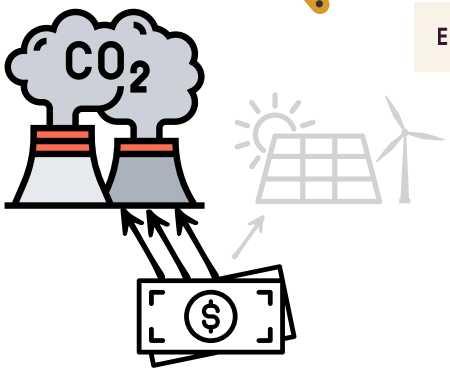
EOR can lead to companies presenting their projects as "low carbon" due to captured CO_2, without accounting for the future combustion of the oil they will extract using EOR. This creates emissions and misleads regulatory and environmental evaluations.

EOR in combination with ethanol production purposefully slows down electrification

When aligned with ethanol production, EOR delays electrification by promoting carbon capture and CO_2 pipelines as solutions that sustain the status quo of liquid fuel industries. This diverts resources and focus from the transition to electric vehicles and renewable energy, prolonging dependence on fossil fuel infrastructure.

Carbon capture with EOR wastes subsidies that could go to real solutions

Carbon capture with EOR allows companies to claim billions in subsidies—up to $1 billion annually in tax credits—while perpetuating fossil fuel use. Every taxpayer dollar spent on EOR diverts critical funding away from proven technologies.



EOR only benefits fossil fuel companies

Landowners, community members, and Indigenous groups all oppose EOR, due to the environmental risks and land disruptions that provide no tangible economic or environmental advantage.

Carbon capture pipelines create health risks to community and environment

Pipelines associated with transporting captured CO_2 create many concerns – in siting, construction, and ongoing use:

The history of pipeline construction in the U.S. has often been fraught, with disproportionate siting in rural areas and negative impacts for low-income and marginalized communities.

For example, in 2020 in Satartia, Mississippi, a CO_2 pipeline rupture caused by a mudslide forced the evacuation of 200 residents and hospitalized at least 45. The rupture released a cloud of CO_2 that left emergency responders finding people disoriented, struggling to breathe, or unconscious.

Such incidents highlight the dangers of CO_2 leaks and the challenges for emergency response, particularly in rural areas with limited medical infrastructure.

Water use concerns and long-term negative consequences for crop-yields with EOR

EOR creates significant local environmental problems, including risks of groundwater contamination, land degradation, and air pollution. Local farmers show concern about their crops when the injection of CO_2 and other fluids can mobilize toxic substances like heavy metals and radioactive materials, potentially contaminating water sources. Leaks or blowouts during EOR operations can cause soil and surface water contamination, threatening local ecosystems.

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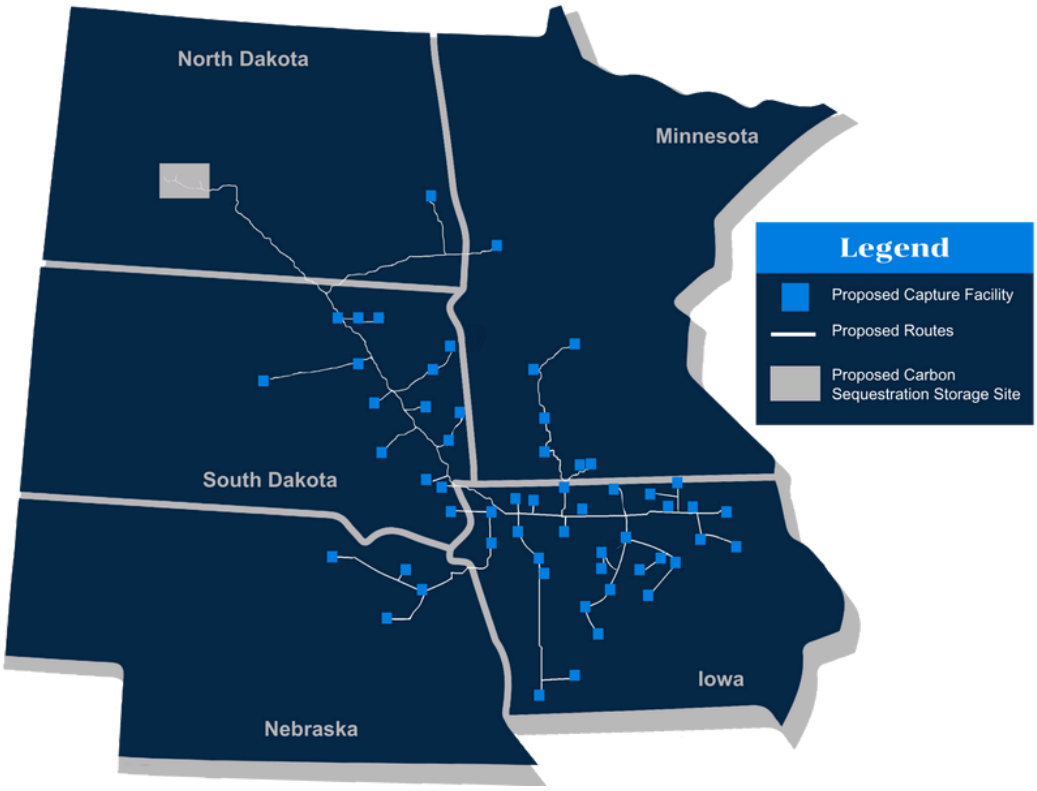
Minnesota Context

Summit Carbon Solutions is a company planning to capture CO_2 from ethanol (it has partnered with more than 30 plants in the Midwest) and pipe it to North Dakota to be used for enhanced oil recovery. Originally approved in December 2024, its project plans to transport CO_2 to a sequestration site near Bismarck, ND. Sections of the pipeline would pass through **Wilkin County** and connect to Great Plains Inc. in Fergus Falls, **Otter Tail County**. A southern branch, still pending approval, would link additional ethanol plants in **Kandiyohi, Martin, Yellow Medicine, Jackson, and Redwood** counties.

This pipeline network has faced much opposition from local communities and organizations due to the environmental and health risks it poses. As of fall 2025, much of the pipeline project appears stalled, but Summit Carbon Solutions continues to try moving ahead.



Map of the 2,500 miles CO_2 Pipeline, planned by Summit Carbon Solutions

Recent Federal Context

45Q Tax Credit
This law provides a tax credit to companies for capture and storage of CO_2 that would otherwise be emitted. However, it has faced criticism for subsidizing fossil fuel industries and perpetuating oil production through EOR. What's more, it has recently been expanded by the Trump administration to be **even more favorable to companies who want to use carbon capture for EOR than it already was**.

A More Positive Example of Carbon Capture?

There are sequestration projects that use methods to trap carbon without relying on fossil fuels (e.g. MN startup called Carba). Their low-energy process converts waste biomass into carbon that can be stored underground. It also creates carbon offset credits, offering a model for community-led, climate-positive sequestration in Minnesota that, not attached to EOR, could bring forth the positive potentials of carbon capture. However, while Carba is a potentially positive example of carbon capture, it represents a very small percentage of how carbon capture projects are currently implemented in the U.S.

This fact sheet was developed as part of the Emerging Climate Technologies in Greater Minnesota Pilot Project. For more information, visit **waxwingllc.com/ruralejproject**

For a list of resources that contributed to this brief, scan this QR code:

Surefire ways to decrease the amount of carbon in the atmosphere and oceans

Reduce emissions
Carbon capture technology should never distract from the reality that we must emit less carbon in the first place. This means ending our reliance on fossil fuels.

Habitat preservation
Many habitats act as carbon sinks, meaning they absorb more carbon than they release:

- wetlands - both freshwater and marine
- grasslands
- forests
- oceans

These habitats help regulate the planet's temperature and store carbon. When these habitats are degraded or destroyed, it increases the risk of natural disasters like flooding and drought, and causes further degradation. Protecting and restoring these habitats, especially learning from indigenous-led land and ocean stewardship, are important ways to support carbon capture.