Eight Reasons to Oppose CO_2 Pipelines

The Illinois Basin region which covers most of Illinois, southwestern Indiana, and western Kentucky with a storage capacity ranging between 12 billion to 172 billion metric tons of CO_2. Source: Prairie Research Institute . November 2020.

Why Carbon Pipelines?

With concerns looming large over our ability to reduce climate-changing greenhouse gas emissions from power and industrial plants, the federal government is making billions of dollars available to private corporations to capture these emissions and pump them underground. This requires transporting high-pressure, liquified carbon dioxide many miles from the industrial source to the site of storage, where it will be injected deep underground.

Geologists have determined that the Mt. Simon Sandstone Formation in the Illinois Basin provides one of the best locations for permanently sequestering carbon. That is why companies like Wolf Carbon Solutions / ADM and Navigator CO_2 Ventures are scrambling to take advantage of federal incentives to transport and store CO_2 in Illinois.

Navigator Heartland Greenway

Navigator CO2 Ventures' project is nearly 1,350 miles long and crosses South Dakota, Nebraska, Minnesota, and Iowa before entering Illinois. The 292-mile long route through Illinois crosses through 14 counties: Hancock, Adams, McDonough, Henry, Knox, Fulton, Schuyler, Brown, Pike, Scott, Morgan, Sangamon, Montgomery, and Christian.

CO_2 would be captured from 20 out-of-state sources and the Big River Resources plant in Henry County, Illinois. Carbon captured along the route would be injected deep underground in Christian and Montgomery Counties.

Mt. Simon Hub

The Wolf Carbon Solutions/ADM "Mt. Simon Hub" project will be 280 miles long, and transport CO_2 from Cedar Rapids and Clinton, Iowa through a portion of 10 Illinois Counties: Rock Island, Henry, Knox, Stark, Peoria, Tazwell, Logan, McLean, DeWitt, and Macon, where it will be injected and stored. Henry and Knox are also crossed by Navigator's Heartland Greenway.

Wolf/ADM plans to pick up carbon from the Alto Ingredients ethanol plant in Pekin and the BioUrja ethanol plant in Peoria. The proposed spur to this plant will parallel U.S. Route 24 and endanger neighborhoods designated by the U.S. EPA as Environmental Justice Communities.

Why Oppose CO_2 Pipelines?

CO_2 pipelines are part of a larger system that includes carbon capture and storage. Carbon capture and sequestration keeps us dependent on fossil fuels at a time when we need to keep them in the ground. Carbon capture requires MORE energy to power the equipment and can increase CO_2 emissions, while continuing to spew health-harming pollutants into the atmosphere. CO_2 pipelines carry an asphyxiant that can kill humans and animals if it leaks or ruptures, depending on the length of exposure. And, there are no guarantees that the carbon sequestered will remain permanently stored underground.

There are many reasons why carbon pipelines and carbon capture and storage are not a good idea. Here are eight:

#1. CO_2 Pipelines Aren't Safe

In order to transport the carbon dioxide via pipeline, it must be liquified under pressure 3 times the rate of natural gas. CO_2 pipelines can, and do, rupture or leak. When this occurs, an explosive plume of CO_2 gas can emerge that can travel a mile or more. Because it is an asphyxiant, and heavier than air and accumulates in low-lying areas, the CO_2 plume can suffocate all living beings, and prevent internal combustion engines in gas-powered vehicles from starting, making escape and rescue difficult or impossible.

A February 2020 CO_2 pipeline rupture in Mississippi required the evacuation of more than 200 people and put 49 in the hospital. While no one died, many experienced life-threatening symptoms and emergency responders had difficulty rescuing people. (Read."The Gassing of Satartia" (Huffington Post, August 2021.)

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#2. Eminent Domain

The Illinois Commerce Commission (ICC) will grant eminent domain if they approve a CO_2 pipeline, and landowners will have no say over whether a carbon pipeline company can build through their property. This is particularly true in Illinois, because the state has adopted the Carbon Dioxide Transportation and Sequestration Act. As currently written, the Act establishes carbon capture as a public good, a key criterion for enabling eminent domain.

The Illinois Commerce Commission may consider landowner objections to the pipeline based on safety, if many intervene in the ICC proceedings. For that reason, landowners should **NOT SIGN A VOLUNTARY EASEMENT** at this time. Doing so will waive future rights.

#3. Few Regulations Exist for CO_2 Pipelines

Carbon pipelines are dangerous and under-regulated.

- CO_2 is an asphyxiant that can travel large distances at lethal concentrations from the pipeline after a rupture.
- CO_2 pipelines are prone to ductile fractures which, like a zipper, open up and run down a significant length of the pipe, while releasing immense amounts of CO_2, hurling large sections of pipe, and generating enormous craters.
- A small amount of water in a CO_2 pipeline allows the formation of carbonic acid which can corrode the pipeline, causing a leak or rupture

After investigating the CO_2 pipeline rupture near Satartia, Mississippi, the Pipeline Hazardous Materials and Safety Administration (PHMSA) announced a rule-making process to improve safety and oversight of CO_2 pipelines. But Navigator and ADM/Wolf are moving forward with their projects before the rule-making is complete.

#4. Damages to Topsoil and Reduced Crop Yield.

Productivity of cropland can be negatively affected by construction. A 2021 Iowa State University study of pipeline construction impacts associated with the Dakota Access Pipeline found “extensive soil disturbance from construction activities had adverse effects on soil physical properties, resulting from the mixing of topsoil with backfill brought in for filling pipeline trenches; and soil compaction from heavy machinery. ”

These impacts can discourage root growth and reduce water infiltration. The research team found:

"Crop yields in the right-of-way were reduced by an average of 25% for soybeans and 15% for corn during the first and second crop seasons, compared to undisturbed fields.”

#5. Construction of CO_2 Pipelines On the Rise

Section 45Q of the Internal Revenue Code provides tax credits on a per-ton basis to companies that successfully trap, sequester and store carbon emissions, preventing them from entering the atmosphere. In August of 2022, the Biden Administration’s Inflation Reduction Act increased these credits from $60 to $85 a ton for carbon stored underground, further accelerating the “mad dash” to build pipelines for corporate profit.

There are currently 5,100 miles of CO_2 pipelines in this country. But projections from Princeton University indicate there could be as many as 66,000 miles of CO_2 pipelines built across the country to meet the demand for carbon capture and sequestration, accelerating impacts and risk.

#6. For Landowners, It's All Risk and No Reward

Private corporations profit from carbon capture and sequestration via federal tax credits and low-interest loans. Landowners take all the risk, with little to no reward. While they are compensated initially for the use of their land, payments from pipeline companies do not begin to approach those that are received from wind or solar located on their farmland. Such renewable energy technologies either power a farm, residence, commercial / industrial property or feed into the grid. Or, if the land is leased by a solar or wind developer, landowners are paid annually in long-term, revenue-sharing agreements.

#7. Pipelines Extend the Life of Fossil Fuels

Instead of spending money to more rapidly deploy renewable energy technologies, billions of federal dollars are being spent to keep the fossil fuel industry in business. This is particularly true for projects that involve enhanced oil recovery (EOR) which puts more carbon into the atmosphere when it is burned. We need to keep fossil fuels in the ground to order to meet critical climate targets.

#8. Carbon Capture and Storage Hasn't Worked

Despite extensive public subsidies, 80% of the projects that have attempted to commercialize carbon capture and sequestration technology, have ended in failure. Between 2005 and 2012, the Department of Energy spent $6.9 billion attempting to demonstrate the feasibility of CCS for coal, but less than 4% of the planned CCS capacity was ever deployed.

Why use taxpayer dollars to fund a CO_2 pipeline system for a technology that has such a poor track record? Plus, there is no proof that the carbon sequestered will remain permanently stored. The greenwashing that calls out CCS as a viable climate solution is setting dangerous policy by diverting funds from technologies we know work.

Coalition to Stop CO_2 Pipelines
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