# **Eight Reasons to Oppose CO<sub>2</sub> Pipelines**

### Why Oppose CO<sub>2</sub> Pipelines?

With concerns looming large over our ability to reduce climate-changing greenhouse gas emissions from power and industrial plants (e.g.: ethanol and fertilizer), 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.

Navigator  $CO_2$  Ventures is seeking approval to build 1,300 miles of new pipeline that will transfer  $CO_2$  from ethanol and fertilizer plants in Iowa and Nebraska to underground storage facilities in Illinois. But, there are many reasons why this is not a good idea. Here are eight:

### #1. CO<sub>2</sub> Pipelines Aren't Safe

In order to transport the carbon via pipeline, it must be liquified and pressurized at 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 is odorless and colorless.  $CO_2$  is heavier than air and will accumulate in low areas. Because it is an asphyxiant, the plume can suffocate all living beings, and prevent internal combustion engines in gas-powered vehicles from starting to enable one to escape. The dangers of asphyxiation can extend up to a mile from the point of rupture.

A February 2020, CO<sub>2</sub> 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."<u>The Gassing of Satartia</u>" (Huffington Post, August 2021).

### #2. Eminent Domain Supersedes Landowner Rights

If Navigator is granted eminent domain landowners will have no say over whether a carbon pipeline company can build through their property. This is particularly true in Illinois. The state has adopted the <u>Carbon Dioxide</u> <u>Transportation and Sequestration Act</u> that, as currently written, establishes carbon capture as a public good, a key criterion for enabling eminent domain.

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



### #3. Pipeline Construction Damages Topsoil and Reduces Crop Yield.

Landowner experience with the Dakota Access Pipeline has shown that the fertility of cropland can be adversely impacted by construction. A <u>2021 lowa State</u> <u>University</u> study found "extensive soil disturbance from construction activities had adverse effects on soil physical properties, resulting from 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 in the right-of-way. 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."

### #4. Few Regulations Exist for CO<sub>2</sub> Pipelines.

Federal oversight is limited. In 1988, Congress expressly assigned responsibility for  $CO_2$  pipeline safety to the Department of Transportation (DOT). In response, the American Petroleum Institute (API) petitioned the DOT for a rulemaking, and then in its comments recommended against writing new regulations specifically for  $CO_2$  pipelines. This was because the API claimed a new set of regulations specific to  $CO_2$  pipelines would unnecessarily complicate matters for pipeline operators and the DOT.

The DOT agreed, and so decided not to conduct a detailed analysis of the need for safety standards unique to  $CO_2$  pipelines. Instead, the DOT elected to make  $CO_2$  pipelines subject to the same general standards that existed for

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oil pipelines, despite the fact that CO<sub>2</sub> is nothing like oil. State regulations defer to the federal government.

The exception to this was a new code (49 CFR §195.111) related to the risk of "fracture propagation," also called "running ductile fractures." This occurs when a rupture of a  $CO_2$  pipeline results in the pipeline unzipping with explosive force along its length for considerable distances. Rather than prescribe detailed standards to stop these unique fractures, the DOT elected to allow operators "to determine the best method to mitigate a propagating fracture." This decision, along with applying standards of oil pipelines, elevates concerns over the risks and hazards associated with  $CO_2$  pipelines.

#### #5. Pipelines Extend the Life of Fossil Fuel Use

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). At recent meetings in Illinois, Navigator indicated that they are not planning to use the  $CO_2$  captured from industrial sources for EOR, but that they are open to customers who may request it. If the pipeline network was eventually expanded to other areas of the state, this process would perpetuate the use of fossil fuels at a time when scientists are clearly saying we need to keep them in the ground.

### #6. CO<sub>2</sub> Pipelines Are Funded by the Taxpayer

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. The \$50 per ton for carbon captured and stored is often shared among the industrial (or power generation) sources, pipeline developers, and carbon sequestration facilities.

Bipartisan proposals are now under consideration to increase this credit from \$50 a ton to \$85 a ton, further accelerating this "mad dash" to build pipelines for corporate profit, but at the expense of the taxpayer, who also bears the brunt of the risk (health, unsuccessful projects, damaged farmland, etc.).

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

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 longterm, revenue-sharing agreements.

There are far better ways of reducing carbon emissions from ethanol and fertilizer plants than capturing the processed CO<sub>2</sub>. Converting these plants to use renewablegenerated electricity would reduce  $CO_2$  emissions and cost less. But, the companies would have to pay for that themselves. Sequestering  $CO_2$  is largely paid for by taxpayers.

### #8 CCS Hasn't Worked

Despite extensive support, <u>80% of the projects</u> that have attempted to 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 <u>less than 4%</u> of the planned capacity of CO<sub>2</sub> was deployed.

Due to the large amount of energy required to power carbon capture and the life cycle of fossil fuels, carbon capture in the U.S. has actually put more CO<sub>2</sub> into the <u>atmosphere</u> than it has removed. (Sekera, J., Lichtenberger, A. Assessing Carbon Capture: Public Policy, Science, and Societal Need. Biophys Econ Sust **5**, 14. 2020).



No  $CO_2$  pipelines signs are springing up across Illinois' rural landscape. As planned, Navigator's  $CO_2$  pipeline will pass through these 13 Illinois counties: Hancock, Adams, McDonough, Henry, Knox, Fulton, Schuyler, Brown, Pike, Scott, Morgan, Sangamon, and Christian.