

# *Carbon Capture and Storage: An Expensive and Dangerous Threat to Louisiana Communities*

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In the face of mounting public pressure to reduce the emissions driving the climate crisis, talk in Louisiana has turned to carbon capture and storage (CCS) as a purported solution. This brief highlights the risks and concerns of CCS.

“Carbon Capture and Storage” refers to processes designed to collect or “capture” carbon dioxide generated by industrial processes – such as coal-, oil-, and gas-fired power production or plastics manufacturing – and then transport those captured emissions to sites where they are used or [stored underground](#).

## **Concern 1: CCS is not a climate solution.**

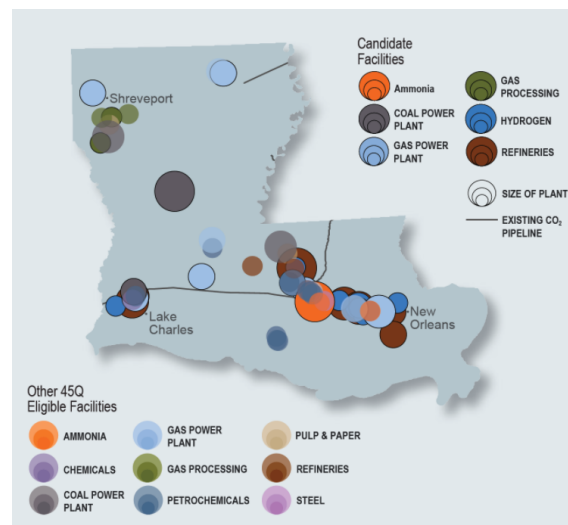
Carbon capture and storage is [expensive, energy-intensive, and unproven at scale](#), and it does not reduce carbon in the atmosphere. CCS technology [entrenches reliance on fossil fuels](#) rather than accelerating the needed transition to cheaper and cleaner renewable energy. Of particular importance to [targeted communities](#) in Louisiana, the technology also poses environmental, safety, and health risks.

Adding carbon capture to coal- or gas-fired power plants makes them [more expensive, less efficient, and less competitive than renewable energy projects](#), which are already the cheapest source of electricity for most of the country and most of the world. Nearly 80% of captured carbon is just [being used to produce more oil](#).

## **Concern 2: Louisiana is a target.**

Louisiana has been widely touted as a potential [epicenter](#) for industrial carbon capture and storage development in the United States. Existing concentrations of oil, gas, and petrochemical infrastructure make Louisiana attractive to proponents of CCS<sup>1</sup>.

Supporters pushed a [CCS-friendly regulatory program](#) through the Louisiana legislature in 2009. [Current law](#) places responsibility for regulating carbon dioxide injection, storage, and use with the Department of Natural Resources, an agency known for [protecting instead of regulating the industry](#).



[Facilities potentially eligible for 45Q CCS tax credits. [Regional Carbon Capture Deployment Initiative](#)]

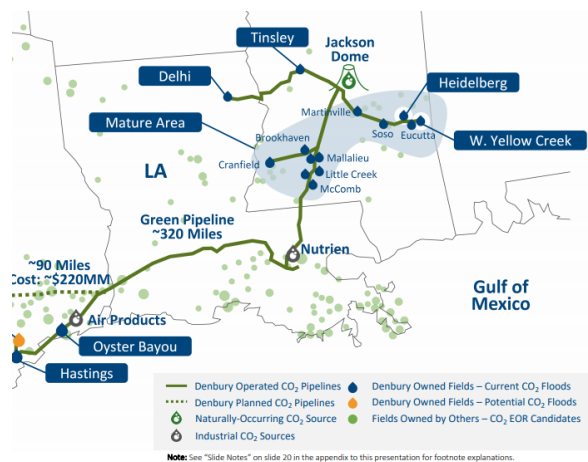
<sup>1</sup> Dismukes, D et al., [Integrated Carbon Capture and Storage in the Louisiana Chemical Corridor](#), LSU (Feb 18, 2019)

### **Concern 3: Residents will pay the costs.**

Proponents claim that there is already pipeline infrastructure available for [transportation and injection of CO<sub>2</sub>](#) in these areas along the Gulf. However, these pipelines would have to be repurposed - and therefore reconstructed - to accommodate transport of compressed carbon dioxide, placing additional burdens on land, water, and communities, at a hefty cost that local ratepayers would likely bear.<sup>2</sup>

CCS would also threaten Louisiana's wetlands. The wells and pipelines [would contribute to land loss](#), directly contradicting the Governor's [Executive Order](#) for state agencies to adhere to the Coastal Master Plan.

Because carbon capture infrastructure would be built near emitting sites, facilities would further harm the same [people already overburdened by industrial pollution](#). In Louisiana, that would put our Black, Brown, and Indigenous communities at [even greater risk](#).



[Source: Denbury, Inc.]

### **Concern 4: Carbon pipelines are dangerous.**

[Piping CO<sub>2</sub> through communities](#) presents a dangerous threat to health and safety. To

<sup>2</sup> See Dismukes et al. at 79.

transport CO<sub>2</sub> through pipelines, it must be highly pressurized and kept very cold, which would require the construction of pipelines that can withstand those conditions. Condensed CO<sub>2</sub> can be corrosive to the steel used to build those pipelines, increasing the risk of leaks, ruptures, and potentially catastrophic running fractures.<sup>3</sup> In addition, [explosive decompression](#) of a CO<sub>2</sub> pipeline releases more gas, more quickly, than an equivalent explosion in a gas pipeline, because of the intense pressures involved.<sup>4</sup>

In areas closest to pipelines, released CO<sub>2</sub> could quickly drop temperatures to -80°F, coating the surrounding area with super-cold dry ice.<sup>5</sup> At high concentrations, CO<sub>2</sub> is a [toxic gas](#) that can restrict breathing. Potential contaminants in CO<sub>2</sub> streams, like hydrogen sulfide (H<sub>2</sub>S), can [dramatically compound these risks](#).

Residents of Yazoo County, Mississippi, learned this in 2020 when a [Denbury Enterprises CO<sub>2</sub> pipeline ruptured](#). Three hundred people were evacuated, and 45 people had to be hospitalized, including some sickened individuals whom authorities found near the scene [acting like 'zombies'](#).

### **Concern 5: CCS focuses on the wrong thing.**

Real solutions for climate change in Louisiana do exist, [supported by local communities](#). The focus of Louisiana leaders and policymakers should remain on cost-effective strategies that maximize public benefit and ensure a stable and safe economic future for Louisiana and its people. Carbon capture and storage does not fit that bill.

<sup>3</sup> See Dismukes et al. at 182.

<sup>4</sup> Mahgerefteh, H. & Denton, G. & Rykov, Y. [Pressurised CO<sub>2</sub> pipeline rupture](#). Institution of Chemical Engineers Symposium Series (2008), at 869-879.

<sup>5</sup> See Mahgerefteh et al. at 10.