



CARBON CAPTURE AND STORAGE

What are the risks to communities?

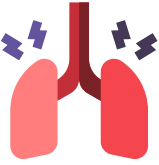
Oil and gas companies are proposing the widespread use of carbon capture to deal with their increasing greenhouse gas emissions.

This involves capturing carbon dioxide (CO₂) from an industrial site, compressing it, transporting it through pipelines and then storing it underground.

Each step along the way has environmental impacts and raises a host of health, safety and financial concerns for communities.

Yet little information is being shared with impacted Indigenous communities and other frontline communities about the types of risks these projects introduce.

Carbon dioxide leaks are dangerous for communities



CO₂ is an **asphyxiant**.

At high concentrations, it can cause rapid loss of consciousness and can be lethal.



CO₂ plumes can **spread significant distances** from the point of release.



Since CO₂ is colourless and odourless, leaks from pipelines or storage sites are **hard to observe** and avoid.



An increase in CO₂ in underground aquifers may leach lead and arsenic contained in rocks, **creating an environmental hazard** if drinking water sources are affected.

Community considerations



CO₂ **acidifies water, posing a risk to watersheds.**

Australia banned carbon storage in the largest groundwater basin to avoid irreversible harm.



Carbon capture **requires large amounts of freshwater.**

Equipping facilities with carbon capture can increase water use by up to 200%.



Carbon capture **aggravates air pollution.**

Industrial sites with carbon capture will have increased emissions of air and water pollutants, such as fine particulate matter.



The long term financial liabilities **associated with CO₂ storage are likely to be transferred to the public.**

In the United States, there have been over 100 leaks or ruptures on existing carbon pipelines since 2004. Numerous counties have passed temporary moratoriums on carbon pipelines given the health and safety risks.

The Pathways Alliance's CCS Hub

The Pathways Alliance is proposing a carbon capture and storage network in northeast Alberta, including:

1

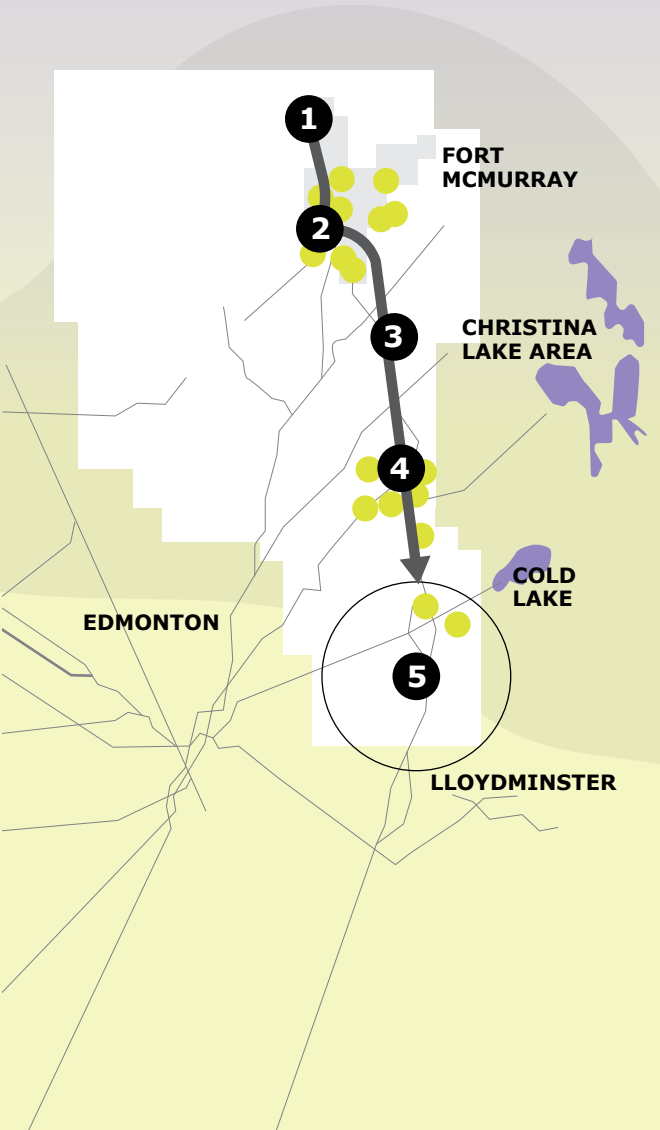
Installing carbon capture at 13 – 20 oil sands facilities

2

Over 600 kilometers of pipeline

3

A storage hub



The pipeline and storage portion of the project has an estimated \$16 – \$24 billion price tag. **The companies are looking to secure public financing** to cover three-quarters of the cost.

- 1 Oil sands mining and in situ area
 - 2 Oil sands upgraders
 - 3 400km CO₂ transportation line
 - 4 Oil sands in situ recovery area
 - 5 Join carbon storage hub
- Emission source
- CO₂ transportation line

Who is the Pathways Alliance?

The Pathways Alliance is a group of six of Canada's largest oil sands producers:

- Canadian Natural Resources Ltd.
- ConocoPhillips Canada
- MEG Energy
- Cenovus Energy
- Imperial Oil
- Suncor Energy

The Pathways Alliance has promoted itself and its company members as committed to reducing their greenhouse gas emissions. While the companies have made large investments into multimillion-dollar advertising campaigns, they have not put money into reducing their pollution and remain some of Canada's largest polluters. There is extensive evidence that they are engaging in greenwashing, and they are currently under investigation by the Competition Bureau.

In 2023 they were the most active lobbyist in the fossil fuel industry, and **they are seeking over \$50 billion in government subsidies.**



When a CO₂ pipeline ruptured in Mississippi in 2020 – releasing 41,000 barrels of CO₂ with enough force to create a 40-foot crater – 300 people were evacuated and 45 people had to be hospitalized. Local responders were not prepared for a CO₂ leak.

Oil and gas companies & CCS lobbying

CCS is massively expensive, with a terrible track record. Most projects fail, and the few that are able to get off the ground underperform. Current global capacity is 40 MT, or about 0.1% of annual carbon emissions.

Oil and gas companies know that CCS is not a climate solution and see the technology as a way to get social license to continue producing fossil fuels.

Oil and gas companies are lobbying for massive CCS subsidies instead of investing their profits.

**OVER
\$50B**

The Pathways Alliance has asked the government to provide over \$50 billion to equip the sector with CCS.

