Federal Impact Assessment Needed for Pathways Alliance's CO2 Hub

MEDIA BACKGROUNDER January 2025



The Federal Government Must Conduct an Impact Assessment of the Pathways Alliance's CO2 Transportation Network and Storage Hub.

Last December, a group of First Nations requested that Minister Guilbeault designate the Pathways Alliance's CO2 Transportation Network and Storage Hub for a federal impact assessment. Minister Guilbeault has 90 days to decide whether to designate the project. However, Pathways Alliance was <u>granted a suspension to the timeline</u> by the Impact Assessment Agency of Canada, the length of which has not yet been clarified.

About the Project

The Pathways Alliance (Canadian Natural Resources, Cenovus, ConocoPhillips, Imperial Oil, MEG Energy, Suncor Energy) is proposing a massive carbon capture and storage (CCS) network in northeast Alberta. The project would be the largest in Canada – one of the largest in the world.

The companies propose to capture carbon dioxide from thirteen oil sands facilities (and eventually up to 20) in the Fort McMurray area, transport it through over 600 kilometres of pipeline to the Cold Lake area where the CO2 will be injected into a massive underground storage hub via 16 - 19 injection wells.

While the Pathways Alliance has not specified the exact area of land under which it intends to inject CO2, an Alberta government map of carbon sequestration in the province indicates that CNRL (which is advancing the project on behalf of Pathways) has an evaluation permit for an area that is approximately 18,000 km2 in size.

The proponents claim the project will achieve the permanent storage of approximately 10-12 million tonnes (MT) of CO2 per year from the 13 Pathways Alliance members' oilsands facilities. Together, these facilities emit about 40 MT of CO_2 per year. Yearly emissions from the oil sands were 86 MT in 2022, a 467 per cent increase since 1990 levels.

The companies hope the project will be completed by 2030 and the anticipated life of this project is approximately 50 years. However, the companies involved have yet to make a

final investment decision on the pipeline and storage hub or their individual capture projects. These companies are claiming they are waiting for more government financing and have so far invested very little of their spending into the project. CNRL, the company leading the development of the project, <u>only budgeted \$90 million in their 2025 plans for CCS</u>. Other members of the consortium did not include any CCS costs in the public communications of their 2025 plans.

The pipeline and storage portion of the project has an estimated price tag of \$16.5 billion – though we know costs of projects like this often end up ballooning. The federal government's investment tax credit for CCS projects covers between 37.5 to 50 per cent of capital costs. In addition, the Government of Alberta created the Alberta Carbon Capture Incentive Program, providing a 12 per cent grant for all CCS projects. Yet the companies involved are insisting these supports aren't enough, saying they want governments to cover 75 per cent of the capital costs. The alliance is also looking to secure more subsidies (in the form of contracts that would guarantee a certain amount of revenue) under the Canada Growth Fund.

Currently, the Pathways Alliance has said the CO2 will be permanently stored, and not sold. The Pathways Alliance may try to garner revenues on this project by charging other polluters for space in the CCS pipeline and sequestration hub.

Health, safety, financial and environmental risks overlooked

Each step along the way poses risks, including installing carbon capture at oil refineries and other industrial sites, carbon pipelines (which can leak or rupture) and underground carbon storage sites.

• Carbon dioxide leaks can pose a serious public health risk. Carbon dioxide is an asphyxiant. At high concentrations, it can cause rapid loss of consciousness and can be lethal for humans and wildlife. A large, sudden influx of CO2, such as a pipeline leak, can be catastrophic for the people who live nearby. Since CO2 is colourless and odourless, leaks from pipelines or storage sites are hard to observe and avoid. Because CO2 displaces oxygen, internal combustion engines would be rendered inoperable near a leak or rupture, interfering with emergency responses. 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. In the United States, there have been 76 leaks or ruptures on existing carbon pipelines since 2010.

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- Threats to groundwater. Increased CO2 in underground aquifers may leach lead and arsenic from rocks, creating an environmental hazard if drinking water sources are affected. Australia banned carbon storage in the country's largest groundwater basin to avoid irreversible harm. Illinois is considering similar rules to protect its aquifer after a leak occurred at the first commercial CO2 storage site in the United States
- Stress to watersheds. Carbon capture requires large amounts of freshwater.
 Although there is no publicly available data on the water impacts of equipping oilsands facilities with CCS, studies show that when power plants are fitted with CCS, their water withdrawals increase between 25% and 200%. The Athabasca River watershed in northeastern Alberta is already under significant stress from climate change and industrial water use.
- 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 financial and liability risks related to carbon storage are highly likely to be transferred from the private sector to the public. The Government of Alberta assumes long-term liability of the storage sites for CCS projects, including monitoring storage sites, remediating CO2 leaks to the extent possible, providing financial security, and paying for any harm to the climate, environment, human health, etc. in the event something goes wrong. The province has set up a Post-closure Stewardship Fund to help cover the costs of long-term monitoring of carbon dioxide storage sites once the government accepts the liability for the sites. Industry will need to pay a per-tonne fee for the carbon dioxide stored. However, that amount is at the discretion of the government on a project-by-project basis. For example, the injection fee for Shell's Quest Project was never published but it is understood to be in the range of 20–30 cents per ton, an extremely low amount. For example, in Louisiana companies have to pay \$7.50 USD per tonne. Alberta is already struggling to deal with the enormous unfunded financial liabilities of the oil and gas sector.

To date, the environmental footprint, as well as the safety and health hazards associated with CCS infrastructure – and this project in particular – have been largely overlooked. For example, the Pathways Alliance told impacted First Nations they would only develop an emergency management plan after the project is completed and operational.

<u>First Nations</u> and <u>local communities</u> have expressed their anger and frustration over the lack of consultation and information provided by the Pathways Alliance.

First Nations Requesting Federal Impact Assessment

In 2023, lobbyists from the Pathways Alliance <u>privately asked the federal government to skip a federal assessment and fast-track the project</u> – despite its massive safety, health and environmental risks.

Regulatory applications, which began in the first quarter of 2024, are ongoing. Pathways has split the megaproject into at least 66 smaller segments and has made multiple applications for each — at least 126. This piece-meal approach is known as "project splitting," an undesirable practice designed to circumvent rigorous environmental assessment.

Concerned with this "project splitting approach", Environmental Defence, Ecojustice, the Athabasca Chipewayan First Nation and local community members requested that the Government of Alberta conduct a comprehensive environmental assessment. The government refused in October 2024.

This prompted a group of First Nations (Beaver Lake Cree Nation, Cold Lake First Nations, Frog Lake First Nations, Heart Lake First Nation, Kehewin Cree Nation, Onion Lake Cree Nation, and Whitefish (Goodfish) Lake First Nation) to <u>request that the federal government</u> designate the project under the *Impact Assessment Act*.

Initially, Minister Guilbeault had until March 3, 2025 to make a decision. However, the Pathways Alliance was <u>granted a suspension</u> to the 90-day timeline. It is unclear what the new timeline will be.



ABOUT ENVIRONMENTAL DEFENCE: Environmental Defence is a leading Canadian environmental advocacy organization that works with government, industry and individuals to defend clean water, a safe climate and healthy communities. Visit environmentaldefence.ca for more information.

For more information or to request an interview, please contact: **media@environmentaldefence.ca**