A world-leading carbon capture and storage network

Who we are

Pathways Alliance is a collaboration between Canada’s six largest oil sands companies, representing about 95% of Canada’s oil sands production. To help Canada meet its climate goals, we’re working on an ambitious plan to reduce carbon emissions from oil sands production in phases, with the ultimate goal of net-zero emissions from operations by 2050.

With Pathways Alliance doing its part to help Canada reduce emissions, our country can be the preferred supplier of responsibly produced oil to the world. This will ensure our sector can continue to significantly contribute to the Canadian economy and energy security, while continuing to support thousands of jobs from coast to coast.
Our foundational project

The Pathways plan is anchored by a major carbon capture and storage, or CCS, network. This proposed network will connect more than 20 CCS facilities in the Fort McMurray, Christina Lake and Cold Lake regions of northeast Alberta to a carbon storage hub near the Cold Lake region, where liquid CO₂ will be stored safely underground.

When complete, the proposed network will have the capacity to transport captured CO₂ from more than 20 oil sands facilities to a storage hub in the Cold Lake region of northeast Alberta. An approximately 400-kilometre pipeline will carry liquid CO₂ to the storage hub with minimal land disturbance. The line will primarily follow existing rights-of-way.

Project scope

The proposed CCS network could eventually see more than 1.1 billion tonnes of CO₂ safely stored deep underground—a critical lever in enabling our goal of net-zero emissions from operations by 2050.

The network will also accommodate other industries in the region interested in capturing and storing CO₂ emissions.
We have the scale and the expertise and the resources to be a meaningful part of improving emissions.

KENDALL DILLING, PRESIDENT, PATHWAYS ALLIANCE
The CCS network

Project overview
The proposed project involves careful site selection and extensive monitoring to ensure the injected CO₂ remains sequestered safely underground.

To minimize land disturbance, the transportation line will parallel existing pipeline rights-of-way to the greatest extent possible.

The storage hub will be located more than one kilometre below the Earth’s surface—the height of approximately three to four stacked Empire State Buildings—which is deeper than any freshwater sources.

Pathways Alliance scientists, engineers and other experts have decades of experience developing carbon capture technologies, and our storage site in Alberta has ideal geological properties with natural trapping mechanisms that will contain the CO₂ deep underground in the storage hub area.

Extensive monitoring will be in place during all stages of development and operations of the proposed project.

Timelines
As we prepare our regulatory application and progress preliminary stages of design and engineering, we continue to engage with Indigenous groups, landowners and other interested parties. After regulatory approvals are complete, Pathways Alliance could begin safely injecting and storing CO₂ by late 2026.

See our plan of action at PathwaysAlliance.ca or reach us at contact@pathwaysalliance.ca.