

Carbon Capture, Utilization and Storage (CCUS)

With Alberta's abundance of low-cost natural gas and world-scale Carbon Capture, Utilization and Storage (CCUS) capacity, the province is aiming to be one of the world's lowest cost producers of clean hydrogen. The International Energy Agency (IEA) estimates that geological storage or sequestration, CCUS, will be responsible for 90% of captured CO₂.

Alberta has vast carbon storage resources, with the total capacity in Alberta's deep saline aquifers and oil and gas reservoirs estimated to be over 100 billion tonnes. Internationally recognized CO₂ storage site selection criteria and site characterization, developed in Alberta, should be used to identify the most promising formations for CO₂ storage.

The Numbers



27K+

Oil facilities



\$81B

Energy contribution to Alberta GDP in 2021



142

Number of countries Alberta exports to



18K+

Gas plants and facilities

The Opportunity



14.6m

The Alberta Carbon Trunk Line (ACTL), the world's largest CCS project, transporting up to 14.6 million tonnes of CO₂ per year



23%

Alberta's combined federal-provincial business tax rate is lower than that of 44 US states

Company Spotlights



\$1.3 billion investment to build the world's largest net-zero hydrogen network, including the only liquid hydrogen production facility in Western Canada.



Sumitomo Corporation

Sumitomo Corporation of America announced an agreement with Reconciliation Energy Transition Inc. to grant Sumitomo the exclusive right to acquire interest in the East Calgary Carbon Transportation and Sequestration Project (CTS Hub) in Alberta.



The world's first commercial-scale CCS to capture emissions from oil sands operated by Shell, transporting it 65km north for permanent storage.



Dow plans to use CCUS and build the world's first net-zero carbon emissions integrated ethylene cracker (valued at \$11 billion) with Linde at its site in Fort Saskatchewan.



Marubeni entered into a share subscription agreement with Bison Low Carbon Ventures Inc.'s CCS project in Alberta, Canada.

CCUS Incentives

Technology and Innovation Emissions Reduction (TIER)

Technology Innovation and Emissions Reduction (TIER) is a carbon pricing and emission trading program in Alberta with credits starting at C\$65/tonne in 2023 and increasing to C\$170/tonne in 2030. Companies have an economic incentive to capture their emission and store it to avoid carbon credits.

Investment Tax Credit (ITC)

Investment Tax Credit (ITC) provides up to 60% of CCUS expenditure qualified for a refundable tax credit between January 1, 2022, and December 31, 2030.

Alberta Carbon Capture Incentive Program (ACCIP)

The Alberta Carbon Capture Incentive Program (ACCIP) will support and accelerate the development of new CCUS infrastructure by providing incentives for facilities to incorporate this technology into their operations, offering up to 12% of eligible capital costs.

Carbon Capture, Utilization and Storage (CCUS)

Alberta has invested billions of dollars into carbon capture, utilization and storage (CCUS) projects and programs, as well as significant regulatory enhancements and knowledge sharing.

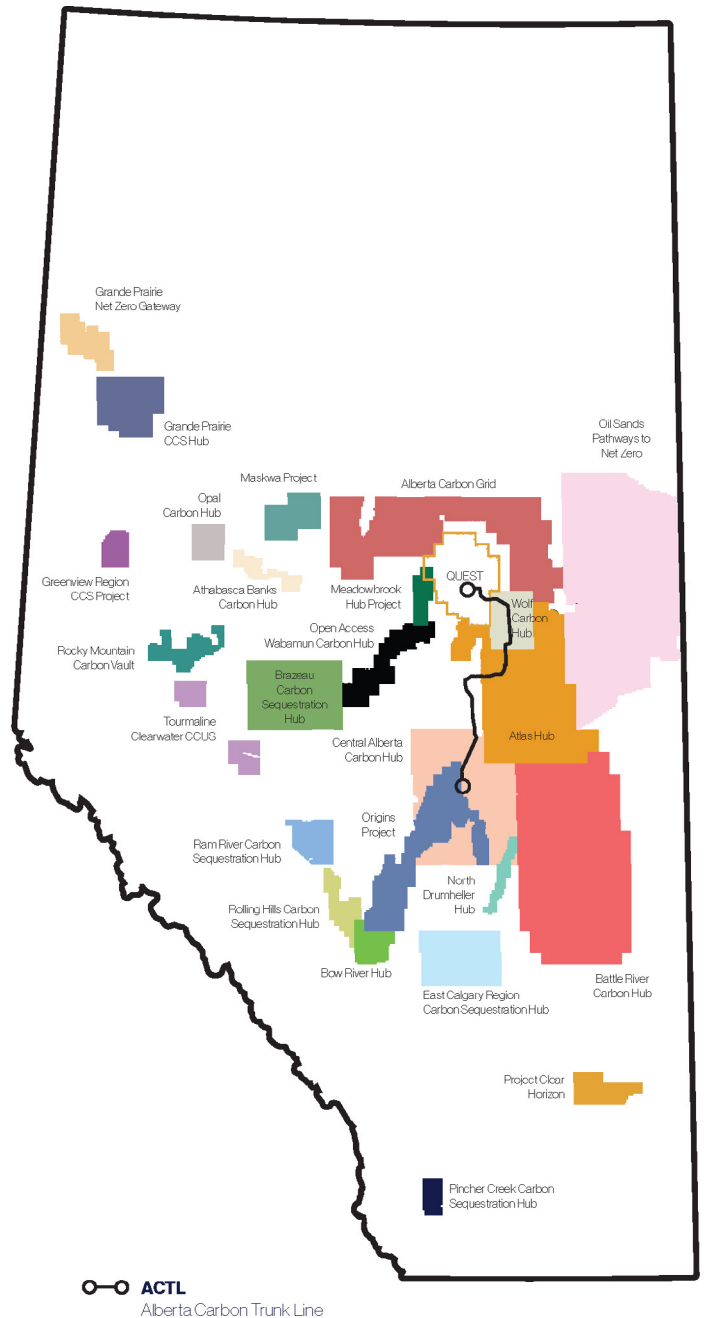
Carbon Storage Hub Proposals

In 2022, the Alberta government selected a total of 25 new CCUS projects for further evaluation. This has the potential to increase the province's CCUS capacity to about 56 million tonnes of CO₂ per year by 2030.

Home to four leading commercial CCUS projects, the province is leading the way as housing the largest hydrogen hub in Canada. The Alberta Carbon Trunk Line is the world's largest CCUS project and has the capacity to transport 14.6 million tonnes of CO₂ every year.

Alberta Carbon Sequestration Hubs Under Evaluation (2022)

- Greenview Region CCS Project
- Rolling Hills Carbon Sequestration Hub
- Meadowbrook Hub Project
- North Drumheller Hub
- Project Clear Horizon
- Open Access Wabamun Carbon Hub
- Grande Prairie CCS Hub
- Origins Project
- Battle River Carbon Hub
- Bow River Hub
- Maskwa Project
- Opal Carbon Hub
- Grande Prairie Net Zero Gateway
- Oil Sands Pathways to Net Zero
- Alberta Carbon Grid
- East Calgary Region Carbon Sequestration Hub
- Atlas Hub
- Brazeau Carbon Sequestration Hub
- Ram River Carbon Sequestration Hub
- Tourmaline Clearwater CCUS
- Rocky Mountain Carbon Vault
- Athabasca Banks Carbon Hub
- Pincher Creek Carbon Sequestration Hub
- Central Alberta Carbon Hub
- Wolf Carbon Hub



Big. Bold.
Alberta.

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