

Economic Sustainability



Storing Carbon Safely: Saskatchewan's Leadership Below the Surface



Saskatchewan is a leader in storing carbon dioxide (CO₂) deep underground, using proven techniques that safely trap the CO₂ for the long term. Deep rock formations, such as depleted oil and gas reservoirs and saline formations, provide secure spaces where CO₂ can be injected and contained. Since 2000, nearly 51 million tonnes of CO₂ have been stored in the province through geological storage and enhanced oil recovery (EOR), and this amount continues to increase each year.

SaskPower pioneered the development of carbon capture and storage (CCS) through its Boundary Dam 3 project, the world's first industrial-scale CCS system to capture CO₂ from power generation. Since the system began operating in 2014, Boundary Dam 3 has captured over 7.6 million tonnes of CO₂, more than 90 per cent of which has been supplied to Saskatchewan's CO₂ EOR operations, with the remainder sent to Aquistore, the world's largest active field lab for deep saline CO₂ storage. Saskatchewan continues to be a world leader in EOR, which results in 37 per cent fewer emissions per barrel compared to conventional oil production. Over the last 25 years, Saskatchewan's EOR projects have sequestered over 50 million tonnes of CO₂. This approach supports continued production while helping producers manage their emissions more efficiently.

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Why It Matters

Safely storing carbon dioxide underground in stable geological formations helps limit the amount of CO₂ released into the air, supporting emissions intensity improvements in key sectors such as electricity generation and oil and gas. This storage approach strengthens Saskatchewan's role as a supplier of lower emissions intensity energy products in a competitive world market. By advancing practical and proven storage solutions, the province supports the development of carbon management technology and long-term energy security for communities and industry.

Links to Related Information

[Boundary Dam Carbon Capture Project](#)

[Boundary Dam Carbon Capture and Storage Project – Canada](#)

[Saskatchewan's Climate Change Strategy](#)

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