

The Edmonton Region's Carbon Capture Opportunity



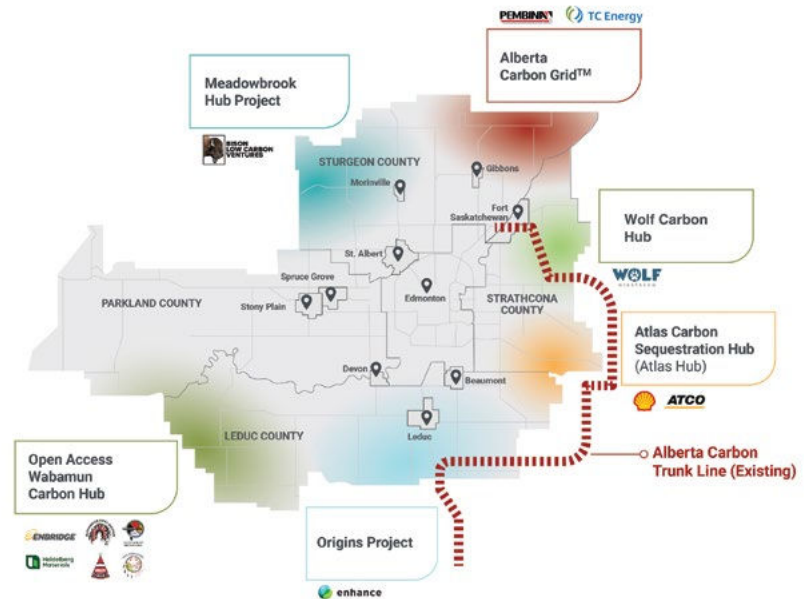
The Edmonton Region is Canada's leader in carbon capture, utilization, and storage (CCUS), driving the nation's path to a net-zero future. Our region boasts unmatched infrastructure for CO₂ transportation and storage, positioning us at the forefront of sustainable innovation and carbon management.

OVER \$16 BILLION IN NEW CARBON CAPTURE ENABLING PROJECTS PLANNED BY 2027

OVER 14 MT CO₂ CAPTURED TO DATE – EQUIVALENT TO REMOVING 2.6 MILLION CARS FROM THE ROAD

THE WORLD'S LARGEST CO₂ PIPELINE

6 CO₂ HUBS UNDER DEVELOPMENT



Edmonton Metropolitan Region Value Proposition

EXISTING INFRASTRUCTURE AND TECHNOLOGY

- Some of the largest CCUS facilities in the world.
- Six CO₂ storage hubs.
- World's largest CO₂ pipeline located in Alberta's Industrial Heartland – Canada's largest industrial zone.
- World-class, technology-enabling facilities and resources:
 - University of Alberta
 - NAIT
 - C-FER Technologies
 - InnoTech Alberta
 - CanmetENERGY Devon

INCENTIVES

- Federal incentives up to 60% for clean technology projects, including hydrogen production and CCUS.
- Provincial incentives up to 12% towards capital for carbon capture and hydrogen production.

TALENT

- Alberta outperforms other Canadian provinces per capita in number of engineers, manufacturing productivity, and labour cost.
- Eight post-secondary institutions, offering 170 programs to over 130,000 students.
- The region is home to world-leading expertise in CCUS technology and clean energy.

CARBON SEQUESTRATION HUB APPROACH

- Alberta issues carbon sequestration rights through a competitive process, fostering the development of dedicated CO₂ storage hubs.
- Alberta is implementing a hub model where multiple companies inject CO₂ into an approved location, ensuring that CCUS is executed responsibly, safely, and strategically.

MEET WITH OUR EXPERT



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Canada's Path To Net-Zero Runs Through the Edmonton Region

The Edmonton Region's unique geology and robust energy sector make it a global leader in carbon capture, utilization, and storage (CCUS). With abundant low-cost feedstock, a skilled workforce, and strong government incentives, our region is at the forefront of CCUS deployment. Expertise in clean energy innovations, international collaborations, and strategic access to export markets position the Edmonton Region as a leader in Canada's path to net-zero.



CCUS Enabling Projects

ALBERTA CARBON TRUNK LINE (ACTL)

ACTL has sequestered over 5 million tonnes of CO₂ emissions since its inception. With an ultimate capacity of 14.6 Mt of CO₂ per year—equivalent to removing more than 2.6 million cars from Alberta's roads—ACTL is the world's first and only carbon trunk line, setting a global standard for large-scale CO₂ transportation. Air Products and Linde's CO₂ emissions will be efficiently captured and fed into ACTL once their facilities are operational.

NUTRIEN REDWATER FERTILIZER

Nutrien's Redwater facility has sequestered over 500,000 tonnes of CO₂ through the ACTL, significantly enhancing the Region's production of low-carbon ammonia, and increasing, capture, and export capacity to over 300,000 tonnes of CO₂ per year.

NWR STURGEON REFINERY

The NWR Sturgeon Refinery is the world's first bitumen refinery built with CCS at its core. Designed to produce high-value fuel products, this refinery offers a sustainable approach to meeting North America's growing energy demands.

HEIDELBERG MATERIALS

Heidelberg Materials is setting a global benchmark by creating the world's first full-scale carbon capture initiative at a cement plant. This pioneering facility aims to capture over 1 million tonnes of CO₂ annually from cement production and its integrated combined heat and power facility.

SHELL QUEST

Quest has stored more than 9 megatonnes of CO₂ from Hydrogen production facilities since 2015. Best practices from Quest will be used in the Atlas CO₂ storage project, a partnership of Shell and ATCO.

LINDE

Linde announced plans to build a \$2 billion state-of-the-art clean hydrogen production facility — the company's largest single investment to date — becoming the largest of its kind in Canada and among the largest globally. Utilizing Linde's proprietary HISORP carbon capture system and autothermal reforming technology, the new complex will supply Dow with clean hydrogen for its Path2Zero project.

VARME'S WASTE TO ENERGY

Varme Energy Inc. and Gibson Energy are leading the way by advancing their waste-to-energy project in the Edmonton Region. The project will transform 200,000 tonnes of municipal waste into electricity each year while capturing carbon emissions. It will be Canada's first industrial-scale waste-to-energy facility with carbon capture.

