

Ready for Removal: A Decisive Decade for Canadian Leadership in Carbon Removal



Carbon removal is the process of removing carbon dioxide (CO₂) already in the atmosphere and storing it away for centuries or longer. Carbon removal is needed *in addition* to reducing emissions. Even if society reaches net-zero emissions by 2050, there will still be a need to draw down billions of tonnes of CO₂ from the atmosphere to address historical emissions and avoid the worst impacts of climate change.

Canada will need at least 300 megatonnes of carbon removal capacity by 2050 to deal with hard-to-abate sectors and begin to remove our fair share of historical emissions.

Carbon removal potential in Canada

Canada can be a major player in the emerging carbon removal industry, creating hundreds of thousands of jobs and billions in GDP.

Scaling-up carbon removal in Canada presents a major economic opportunity. A previous study estimated that a carbon removal sector able to remove 300 megatonnes of carbon annually by 2050 could create:

\$143B
in potential GDP

332K
potential jobs

\$2.5B
in industrial demand for steel

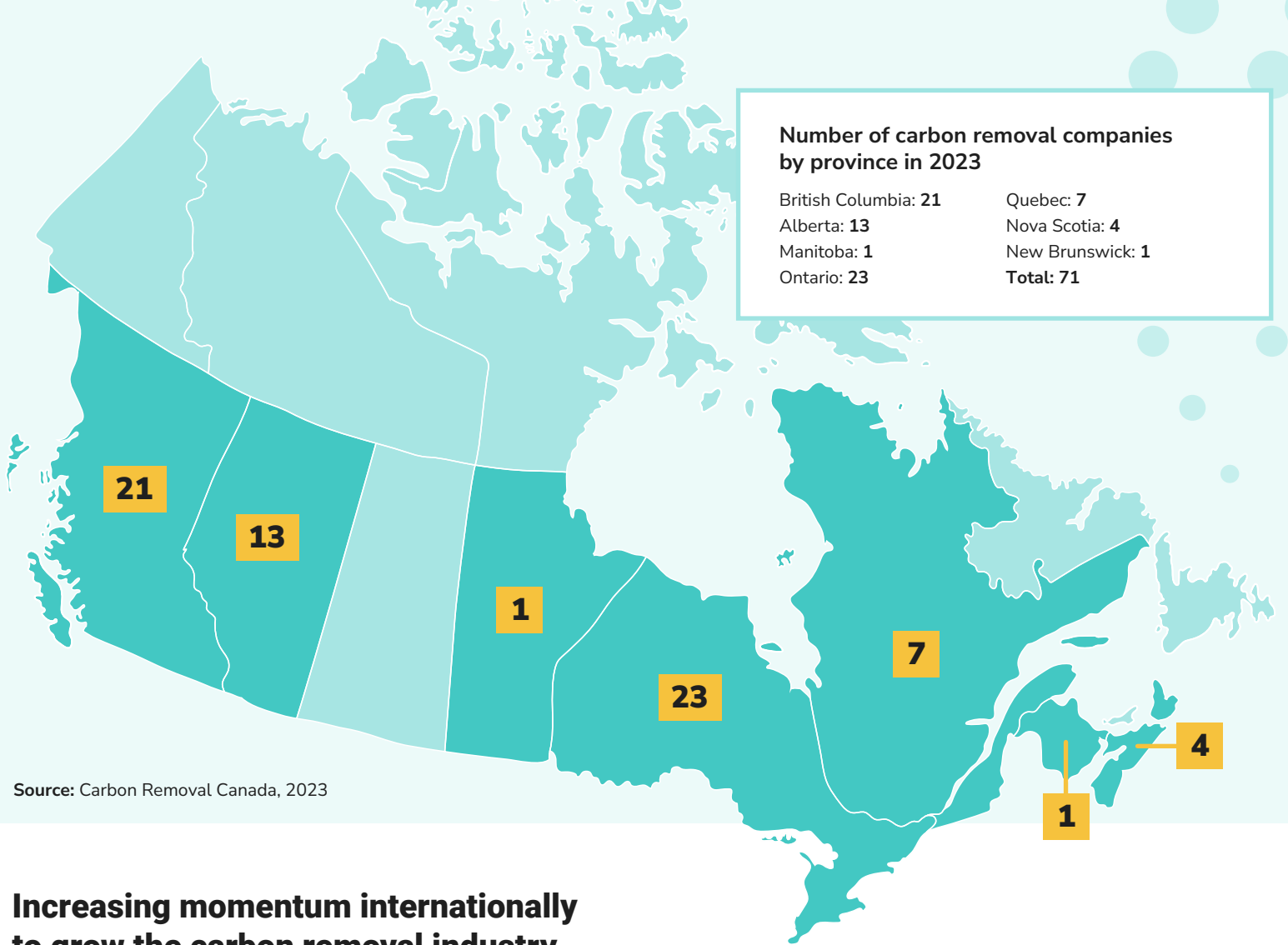
\$23B
in industrial demand for construction

Recommendations

Canada has several supportive policies and programs in place, but more is needed to successfully scale-up carbon removal and keep pace with the rest of the world. Carbon Removal Canada recommends that policymakers aim to have **five megatonnes** of carbon removal capacity in development by 2030, which could be achieved by undertaking the following policy actions:

- 1 Stimulate market demand** to help Canadian companies unlock project financing needed to scale and compete on the world stage. These market signals can be developed through a federal carbon procurement program, carbon contracts for difference and/or integration in compliance markets.
- 2 Accelerate technology supply across all carbon removal methods** by earmarking new research, development, and demonstration funding, providing financial support for carbon removal projects through the Canada Infrastructure Bank and Canada Growth Fund and/or strengthening tax credits to get more project types off the ground.
- 3 Enable rapid and responsible deployment** by finalising the development of carbon removal protocols under Canada's Greenhouse Gas Offset Credit System, creating opportunities for Indigenous community partnership in carbon removal projects, and creating guidelines on strengthening and streamlining siting, permitting, and liability requirements.





Source: Carbon Removal Canada, 2023

Increasing momentum internationally to grow the carbon removal industry

Canada is not alone in the race to scale carbon removal:



United States

- Incentivizing carbon removal efforts by making it eligible for the 45Q production tax credit, providing \$241 CAD per tonne of carbon sequestered.
- Instituted a \$47M CAD procurement prize for US carbon removal companies.
- Establishing two Direct Air Capture Hubs with over \$4B CAD to fund megatonne removal capacity.



European Union

- Set aside \$123M for carbon removal innovation projects in 2023-2024 through Horizon Europe.
- Established a carbon removal target of 10% of their 2040 emission goals.
- Aiming to create 400 Mt CO₂ carbon removal capacity by 2040.



United Kingdom

- Aiming to achieve annual carbon removal capacity of at least:
 - 5 Mt CO₂ by 2030
 - 23 Mt CO₂ by 2035
 - 81 Mt CO₂ by 2050
- Allocated \$87M CAD to fund 15 carbon removal innovation projects.

Canada is ready for removal, it's time to start building now.

Read the full report at carbonremoval.ca

