

Carbon Capture and Storage: An Applicants Guide to British Columbia's Regulatory Framework for Storing or Disposing of Carbon Dioxide

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Summary

British Columbia's CleanBC plan includes a wide range of actions to reduce emissions and build a cleaner economy. Carbon Dioxide (CO₂) accounted for 78% of Greenhouse Gas (GHG) Emissions for the oil and gas sector in BC in 2020 (British Columbia Climate Action Secretariat, 2020). The CleanBC Roadmap to 2030 identifies carbon capture and storage (CCS) as an important emissions reduction strategy for a variety of industrial sectors. Capturing CO₂ and then either using or storing it has the potential to significantly reduce emissions from various industrial sectors, including oil and gas. Employing carbon, capture and storage as an emissions reduction strategy is crucial for other hard-to-abate industrial sectors (eg, cement production, pulp and paper, steel manufacturing) where emissions cannot be eliminated in any other way.

During development of the CleanBC Roadmap industry leaders stressed the need for clarity on how to advance carbon capture, utilization and storage projects through regulatory certainty and fiscal measures. In recent years, the Province of British Columbia has updated its regulatory framework regarding storing or disposing of carbon dioxide. Amendments to legislation and regulations provide clarity and certainty to investors, while ensuring the safety of communities and the protection of the environment.

As a result of legislative amendments to the Petroleum and Natural Gas Act (PNGA), the Petroleum and Natural Gas Storage Reservoir Regulation (PNGSRR) was brought into effect in July 2023. Changes to the regulation support development of carbon capture and storage projects by providing clarity for industry on the application process for acquiring tenure for storage or disposal of carbon dioxide. Applications for storage or disposal of carbon dioxide in British Columbia will be evaluated against the requirements documented in the PNGSRR. We provide an overview of the new Storage Reservoir Regulations and guidance on the application process to the Ministry of Energy, Mines and Low Carbon Innovation (EMLI) for acquiring storage reservoir tenure.

Petroleum and Natural Gas Storage Reservoir Regulations – An Overview

The Petroleum and Natural Gas Storage Reservoir Regulation outlines the requirements for an application to EMLI to secure a licence to explore for or to use a storage reservoir. There are two forms of tenure that can be utilized for storage or disposal: (1) petroleum and natural gas leases, known as PNG leases, issued in accordance with Part 6 or section 71 of the PNGA; and (2) storage reservoir licences issued in accordance with section 130 of the PNGA. Substances that can be stored or disposed of in a storage reservoir include natural gas, produced water, non-hazardous waste and carbon dioxide.

Storage or disposal under a PNG lease is limited to specific substances associated with oil and gas activities. A storage reservoir licence is required for storage or disposal where a proponent does not hold PNG rights or for storage or disposal of substances not allowable under the authority of a lease, e.g., carbon dioxide from non-oil and gas sources.

If additional information on the geology and engineering properties of a potential underground storage reservoir is required to support an application for a storage reservoir licence, a proponent may apply to the Ministry for a storage reservoir exploration licence (exploration licence), issued in accordance with section 126 of the PNGA.

Subsurface tenure issued under a storage reservoir exploration licence is issued by application, with variable term lengths (depending on the scope of exploration work to be conducted and may be renewed. Tenure issued under a storage reservoir licence is issued by application with an initial term of 15 years and may be extended or renewed.

We will provide guidance on content requirements for application to the Ministry of Energy, Mines and Low Carbon Innovation for acquiring storage reservoir tenure, as outlined in Sections three and five of the Petroleum and Natural Gas Storage Reservoir Regulation.

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References

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