



Tackling Methane Gas Emissions from Oil and Gas Sector in British Columbia

Government: British Columbia, Canada

Region: North America

Sector(s): Short lived climate pollutants (SLCP)

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Summary

Increased concentrations of greenhouse gases such as methane, carbon dioxide, and water vapour absorb infrared radiation and reradiate it back to Earth's surface, potentially trapping heat and causing global warming and climate change.

Reducing methane emissions from oil and gas operations is recognized as one of the most effective ways to mitigate climate change and regulatory policies could be pivotal in ensuring this. Acknowledging the seriousness of the challenge, British Columbia (B.C.) released its Climate Action Plan in 2008, highlighting Greenhouse Gas (GHG) emission reduction targets and a suite of programs to achieve them. This was followed by announcing a methane emission reduction target of 45% from upstream natural gas production by 2025 and a commitment to investing in infrastructure to power natural gas projects with clean electricity.

In December 2018, B.C. reaffirmed its methane emissions reduction target in the [CleanBC Plan](#). Using new and upgraded technologies and leak detection and repair (LDAR) programs, methane emissions can be reduced while keeping natural gas production economical for companies.

The BC Oil and Gas Commission worked in collaboration with the natural gas sector, environmental organizations and government agencies to establish new rules to reduce methane emissions.

Provincial regulations developed by the BC Oil and Gas Commission were announced in January 2019.





Results and Accomplishments

- **New regulations:** In January 2019, the BC Oil and Gas Commission announced new regulations to reduce methane emissions from upstream oil and gas operations to meet or exceed federal and provincial methane emission reduction targets.
- **New guidance:** In July 2019, the BC Oil and Gas Commission announced a new guideline to support the [fugitive emissions management](#) requirements of the regulations including leak measurement and reporting requirements.
- **BC Oil and Gas Methane Emissions Research Collaborative (MERC):** MERC is a multi-stakeholder initiative between the Province, environmental non-profits, industry, and research organizations established to ensure research efforts improve the Province's understanding of methane emissions from the oil and gas sector and ensure new technologies are achieving the outcomes expected from the provincial regulations.

Enabling conditions

- British Columbia developed incentive programs to deploy and test new technologies and practices to be adopted in the oil and gas sector. Testing these new technologies ensured regulatory requirements could be achieved. These included carbon-offset programs and royalty deduction programs, such as the [Clean Growth Infrastructure Royalty Program](#).
- British Columbia plans to increase the usage of clean and renewable energy over the next decade and beyond to ensure the Province's industrial economy is powered by low-emitting sources. Switching to clean electricity will make B.C.'s natural gas some of the cleanest in the world.
- MERC will make recommendations on the design and implementation of key research deliverables that will be necessary to meet methane reduction goals. With this new information, B.C. may be able to calibrate provincial regulations to ensure the largest amount of methane is reduced for the least cost, keeping the sector economical while reducing carbon pollution from major emitters.
- Rising to meet the global challenge of climate change is an opportunity for British Columbia to mobilize skilled workers, natural resources, and the booming technology sector to reduce climate pollution and create good jobs and economic opportunities across B.C.

Challenges

- Data uncertainties related to some specific emissions source types require additional research, which is expected to be conducted in the coming years.
- New methane detection, quantification, and attribution technology platforms require further testing and analysis to determine whether they can achieve similar outcomes to currently established leak detection methods.

Key lessons learned

Target setting could be one of the effective ways for the provincial and federal governments to drive reduction of methane emissions from upstream and venting oil and gas operations.

Developing regulations and initiating research plans with external stakeholders input to improve regulatory design and implementation will improve accountability and ensure methane reductions can be assessed against established targets.

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About CleanBC <https://cleanbc.gov.bc.ca/>

Provincial regulations developed by BC Oil and Gas Commission

http://www.bclaws.ca/civix/document/id/regulationbulletin/regulationbulletin/Reg286_2018

This case study was developed as part of the “Reducing Short-lived Climate Pollutants in States & Regions” project. The aim of this project is to support Under2 Coalition members to reduce methane emissions from oil and gas operations within their jurisdictions and showcase their achievements to governments.