

Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds (Upstream Oil and Gas Sector)

FACTSHEET: GENERAL INFORMATION

Overview

Hydrocarbon gas is composed of methane (CH_4), a colourless, odourless and flammable gas and volatile organic compound (VOCs). Methane is considered toxic under the *Canadian Environmental Protection Act, 1999* (CEPA) and listed under the List of Toxic Substances. Methane is also a greenhouse gas (GHG) and it has a global warming potential that is more than 70 times greater than carbon dioxide (CO_2), over a 20-year period. VOCs are air pollutants that are linked to adverse human health impacts, such as premature death, chronic and short-term respiratory and cardiac problems. Reducing methane and VOCs will reduce climate change impacts and provide better air quality for Canadians.

Oil and gas facilities are the largest industrial emitters of methane in Canada. In 2017, they released 44% of Canada's methane emissions. Upstream activities such as exploration, drilling, production and field processing are responsible for the majority of methane emissions from the oil and gas sector and account for 26% of Canada's total GHG emissions.

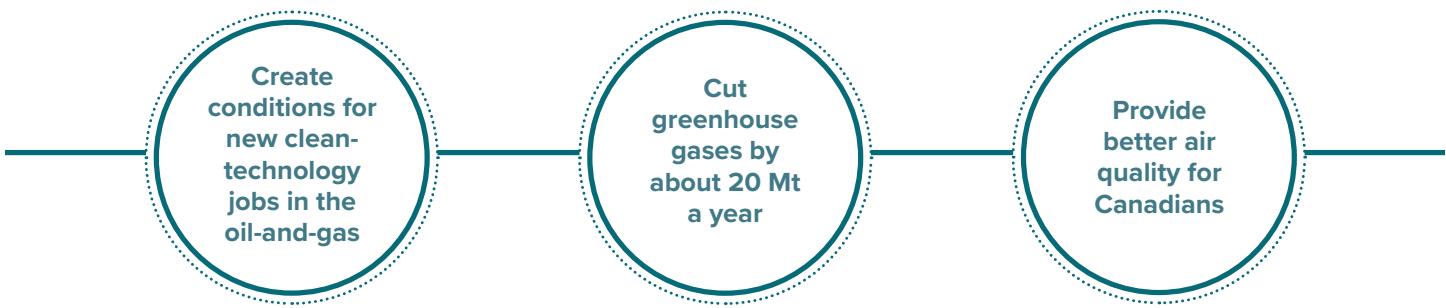
During oil and gas extraction and processing, hydrocarbon gas can leak accidentally (fugitive) or be released intentionally (venting) into the environment. These hydrocarbon gas emissions contribute significantly to global warming and climate change.

These regulations are designed to promote innovation and provide flexibility for oil and gas industries to choose the most cost-effective compliance options and promote sound industry practices such as gas capture, clean combustion and leak detection and repair (LDAR) to reduce emissions.

What is the purpose of these Regulations?

The first requirements under the regulations came into force on January 1, 2020, in order to fulfill Canada's commitment to reduce emissions of methane from the oil and gas sector by 40% to 45% below 2012 levels by 2025. The regulations are an important element of Canada's climate plan and contribute to Canada's GHG emissions reduction target under the Paris Agreement.

These regulations offer the oil and gas sector a dynamic approach with many flexibilities to reduce their emissions. They are designed with innovation in mind, focused on emissions reduction outcomes, allowing technology development and operational insight to provide solutions.



Who is subject to these Regulations?

These regulations apply to upstream oil and gas facilities that extract, process and/or transport hydrocarbon gas. More specifically, to facilities that:

- produce and/or receive more than 60,000 m³ of hydrocarbon gas per year
- compress natural gas
- undertake hydraulic fracturing during well completions outside of British Columbia and Alberta with gas-to-oil ratios of at least 53:1

When there is a higher potential to emit, the regulations introduce emissions limits and require industry to regularly inspect and repair equipment to reduce emissions. The key fugitive and venting emission sources in the upstream oil and gas sector covered by the regulations are the following:

- Fugitive (leaks);
- Production venting;
- Venting from pneumatic devices;
- Venting from compressors; and
- Venting from well completions involving hydraulic fracturing.

The regulations provide flexibility for industry to meet the regulatory emissions reduction requirements with the technology and process changes that are best suited to the facility design and production profile.

Quick facts

- The regulations will help Canada's oil and gas industry conserve valuable hydrocarbon gas that is often wasted. These regulations will help producers save over \$1 billion worth of hydrocarbon gas between 2018 and 2035.
- Addressing methane from oil and gas sector will achieve the same emissions reductions as taking about 5 million passenger vehicles off the road each year.
- Reducing methane emissions is the lowest cost GHG reduction opportunity in the energy sector. Through these regulations, Canada's oil and gas sector will become a global leader in responsible energy production.

For more information, please visit the [Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds \(Upstream Oil and Gas Sector\)](#) web page or contact us at:

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