

# Regulations Amending the Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds

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Upstream Oil and Gas Sector

February 2024



## About Unifor

Unifor is Canada's premier energy union, with nearly 15,000 members working in oil and gas extraction, natural gas distribution, electric utilities, nuclear energy, and petroleum refineries. More than half of Unifor's energy sector members work in the Prairies region (Alberta, Saskatchewan and Manitoba) while just over a quarter work in Ontario. British Columbia, Quebec, Nova Scotia and Newfoundland together account for approximately one-fifth of Unifor's energy sector membership.

## Unifor's general position

Unifor has long highlighted that methane leakage is an issue that affects all gas, pipeline, storage, midstream and end use companies.

As workers in these industries, we see first-hand the impact underinvestment in leak detection and mitigation has had on the environment, but also on trust in this industry's commitment to being part of the climate solution.

Unifor members want our industry to do its part to reduce supply chain emissions. We feel workers are an essential part of any real solution to reducing the energy sector's impact on the climate.

Upgrades to the sector's infrastructure to reduce emissions from production and transport of natural gas and other products requires workers who know the industry, can do the work effectively, and can expose areas of under-investment. Such jobs are climate jobs and those workers must be adequately compensated, trained and certified, and protected through a union contract.

Unifor has the following general recommendations to support the reduction of methane leakage:

1. Convene a meeting with companies along the gas supply chain and their unions. The goal of the meeting would be to establish and share best practices of reducing methane leaks along the supply chain.
2. The government should instruct NRCan and National Research Council to assist in the deployment of established technology and the development of new technology in identifying and limiting leaks along the gas supply chain. This information should be shared across the sector to identify, measure, and reduce leaks. Independently verified real reductions will build public support for these investments.
3. New regulations enforcing reduced emissions should be twinned with federal and provincial support for all sizes of companies that shall increase their investment in leak mitigation technology, hiring union workers, and training workers to do this work.
4. The government should seek to include union representatives of gas supply chain workers in development and refining these regulations. Unions and their environment committees play an essential role in holding companies accountable

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and ensure these climate-related jobs are good jobs. Support for independent evaluation through unions can help establish and enforce best practices for reducing emissions.

## Objective

With full and continuing adoption of leak reducing technologies and practices at new, modified, and existing oil and gas facilities thousands of jobs can be sustained as the global shift to emission reductions accelerates.

Net direct and indirect jobs would be created annually in a variety of sectors, including manufacturing, construction, operations, and preventive maintenance. It incentivizes the energy sector to maintain jobs while reducing pollution and carbon intensity.

- [Consultation page](#)

## Methane

Methane is considered toxic under the Canadian Environmental Protection Act, 1999 (CEPA) and listed under the List of Toxic Substances.

Methane is a greenhouse gas (GHG) and it has a global warming potential that is more than 70 times greater than carbon dioxide (CO<sub>2</sub>), over a 20-year period.

Volatile organic compounds (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 release along the gas production and supply chain will reduce climate change impacts and provide better air quality for Canadians and outdoor workers who are significantly more affected by poor outdoor air quality.

## Venting Emissions

Unifor agrees with the proposed measures that would prohibit venting of natural gas to the environment. However, we have concerns regarding the exemptions.

Unifor recommends:

1. That the proposed amendments include prescriptive examples of the exemptions for safety, poor gas quality, and prevention of prolonged interruption of gas supply to the public.
2. That a risk assessment and engineering study take place to ensure that exemptions for venting are temporary in nature – and minimize venting of hydrocarbon gas to the atmosphere to the furthest extent possible.
3. As of 2025, facilities increasing gas production should be required to design and operate systems to eliminate venting with a goal of all facilities to be subject to the new requirements earlier than 2030.

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## Emissions associated with combustion of hydrocarbon gas

Unifor believes that regulations should incentivize the reduction of flaring of hydrocarbon gases in all circumstances other than to avoid serious risk to human health or safety arising from an emergency.

Current technologies to capture and re-inject, store, transport, or use any hydrocarbon gas that would have been flared are accessible and available to the industry and should be implemented.

These specific and readily available technologies should be listed as part of the amendments to the regulations with clear goals and timelines on investment across the industry.

Unifor recommends that:

1. flaring should be reduced through strong regulation and broad incentives for new investment in known and readily available technologies and practices.

## Fugitive Emissions

Unifor does not agree with the consultation's description of fugitive emissions (i.e. being unintentional).

Oil and gas firms have access to teams of professionals and resources that could be utilized to understand the integrity of the business infrastructure (compressors, pipeline, valves, etc.) and interpret the statistical likelihood of damages, corrosion, and leaks on the infrastructure.

The lack of proper capital expenditure allocations, adequate integrity programs, adequate leak survey programs and preventative maintenance/repair programs directly increases the size, frequency, and duration of fugitive emissions that occur.

While a risk-based approach to the application of fugitive-based emissions is a creative idea, this approach will not result in directly reducing emissions or ensuring compliance.

Unifor believes that the vast majority of fugitive emissions can be eliminated with the proper implementation of management programs and recommends:

1. Fugitive emissions definition should include emissions that a oil and gas business should have known would arise during the course of business activity given current and available research of the sector.
2. All facilities should be audited and undertake screening inspections once annually.
3. The current emissions rate should have timelines that are reduced to ensure both higher emissions and lower emissions are addressed more promptly than the current regulations prescribe.
4. All detection of emissions should be made within a repair timeline that is dependent upon a reformulated emission rate.

5. Third-party inspections on infrastructure, integrity programs, and leak survey/monitoring programs should be also allowed and supported through a grants program.

## Performance-based approaches

To ensure the integrity of the performance-based approach, high quality, verifiable methane emissions performance data is critical.

A performance-based approach should include a component of statistical analysis to understand the integrity of the infrastructure, and use predictive analysis to identify high/medium/low risk items that can be monitored at an increased frequency prior to a emission being detected.

This performance-based approach should be transparent and shared with employees, workers, unions, and regulators.

Emissions from medium and low risk facilities and equipment should be addressed in a expeditious manner, and not remain uncontrolled or reduced in perpetuity.

An emission that is lower in volume but remains for months or years may release more emissions in total than an emission that is determined "high risk" using the performance-based approach.

These gaps or arbitrage opportunities to emit for extended durations, or with exemptions, must be adequately addressed.

Unifor recommends:

1. Central data collection on risks of emissions linked to certain infrastructure at certain ages should be public.
2. Ongoing analysis of risk of leakage along infrastructure should allow clear estimation and prediction for risk profiles of different infrastructure.
3. Finding and addressing "small, but ongoing" leaks from low and medium risk infrastructure should be tasked to a specific fund to support smaller producers address leaks.
4. Effectively and efficiently addressing leaks along the gas supply chain means focusing *inspection activities* on areas of higher risk.

## Removing application to offshore facilities

The proposed Amendments would remove specific compliance requirements for the offshore sector in the existing Regulations.

This change would avoid duplication with regulations proposed by Natural Resources Canada for the [Frontier and Offshore Regulatory Renewal Initiative](#), which would include specific measures to deal with methane emissions in the offshore sector.

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Unifor believes that amendments **should not** be removed. If firms are compliant there would be no effect of duplication of regulation on company since they would be compliant with both regulations.

Furthermore, Natural Resources Canada does not currently have in effect the same specific measures to deal with methane emissions in the offshore sector.

Unifor recommends:

1. Maintaining offshore facilities in the existing regulations.

## Regulatory Development

Federal regulators should collaborate with Energy boards in all provinces, not only oil and gas-producing provinces. Large distribution centers exist in provinces outside gas producers.

Ontario has over 4 million customers who are supplied with natural gas through a distribution network with hundreds of thousands of kilometers of pipeline and supporting infrastructure.

The regulation of residential and industrial distribution networks are not currently covered under the regulation or proposed regulation.

This gap and lack of regulation is one of the most important and often overlooked contributors to emissions that should be closed as soon as possible. The scale of the emissions from distribution networks is significant and requires significant improvements to be made to meet sustainability goals and to keep workers and the public safe.

Distribution infrastructure should be regulated to reduce emissions from these systems for both environmental and health and safety purposes. To demonstrate the **scale of the fugitive emissions problems** that need to be addressed with distribution infrastructure we have submitted an example with information obtained from a leading oil and gas companies sustainability report.

### Enbridge Example

Enbridge Inc had total 2022, tCO<sub>2</sub> equivalent emissions of 757,524 tonnes in their upstream gas transmission business (GTM)- with 85% of yearly emissions being vented (649,548 tonnes) and 11% being from fugitive sources (88,420 tonnes). This would be covered by the regulations.

The Gas Distribution Business (GDS) had a total 2022, tCO<sub>2</sub> equivalent emissions of 511,691 tonnes. 19% of emissions (102,245 tonnes) are being vented and 80% of the yearly emissions being from fugitive sources (400,299 tonnes). This would not be covered by the regulations.

511,691 tonnes from GDS that could have been reduced with amendments to this regulation were not, allowing this significant amount of emissions to be released into the environment.

- [Enbridge data](#)

Unifor recommends that:

1. Regulations should also apply to downstream distribution.

## Regulatory Analysis Section

Current policies stipulate that leak detection surveys occur on a regular basis and that detected leaks be repaired within a specified time.

Canada's methane regulations also include equipment-level emission limits for pneumatic devices and compressor seals/rod packing.

These regulations are not stringent enough and do not capture significant potential emissions reductions.

Any amendments should incorporate improvements that will significantly reduce emissions through the use of current industry best practices or new innovative technologies.

As natural gas throughput values increase, there will be significant increases in scope 1, scope 2, and scope 3 emissions.

Regulations are needed to address all scope emissions.

Unifor recommends:

1. Limit Scope 1 emissions. This includes emissions from operations activities such as combustion in compressors, boilers, vehicles, and emissions processing equipment. This should include monthly compressor inspections and repairs, require a transition to reduced emission or zero-emission equipment including controllers, compressors, leak detectors, pneumatic pumps, etc.
2. Limit Scope 2 emissions. Regulate power demands of equipment that is energy efficient.
3. Limit Scope 3 emissions. Work with other regulators in other jurisdictions to ensure scope 3 emissions can be reduced.

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