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Submission to Environment and Climate Change Canada

*Proposed regulatory framework for reducing oil and gas  
methane emissions to achieve 2030 target*

*Recommendations*

December 2022

Submission on behalf of:

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Environmental Defence welcomes the Government of Canada's commitments to address methane emissions from Canada's oil and gas sector and the proposed regulatory framework released last month. We commend the Government of Canada for proposing a more robust regulatory framework to achieve at least a 75% reduction in oil and gas methane by 2030 relative to 2012. These regulations would be some of the most stringent and ambitious to date, positioning Canada as a global leader in oil and gas methane mitigation.

The International Energy Agency has called for the world to eliminate methane emissions by 75% by 2030. However, as a wealthy and high-emitting country, Canada has the capacity and responsibility to lead globally. The Government of Canada has a responsibility to act more aggressively than global targets. Furthermore, the Oil and Gas Climate Initiative (OGCI), a group of twelve major global oil and gas companies, announced that they are aiming to achieve near-zero methane emissions by 2030. Canada's regulations should be well ahead of voluntary industry commitments.

**We urge the Government of Canada to take a bolder approach to tackling methane emissions from the oil and gas sector and aim for virtual elimination by 2030.**

Cutting methane emissions is one of the fastest, most cost-effective strategies to reduce the rate of warming and contribute to global efforts to limit temperature rise to 1.5°C. Therefore, reducing methane emissions is an essential part of the pathway to reducing overall emissions from the oil and gas sector. Analysis by Climate Action Network Canada shows that in order for Canada to do its fair share of the global effort to limit warming to 1.5°C, Canada's emissions must be reduced by at least 60% below 2005 levels by 2030.<sup>1</sup> The oil and gas sector must be held accountable to achieving at least this same level of emissions reductions. To achieve this, emissions would need to come down by 135 Mt from 2019 levels. Given that methane mitigation is relatively cheap and easy, reducing methane emissions to near-zero is essential to achieving this outcome.

Unfortunately, we have so far seen limited progress in reducing emissions from the oil and gas sector. Methane emissions have only fallen from 61 Mt in 2012 to 51 Mt in 2019.<sup>2</sup> Actual methane emissions are much higher than current government estimates. Studies in Canada consistently show that methane emissions from oil and gas could be twice as high as what government estimates show.<sup>3</sup> In addition to addressing the main sources of methane emissions that can be cost-effectively eliminated now, strong measurement, monitoring, and reporting requirements are needed to evaluate progress and ensure companies are taking action.

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<sup>1</sup> Climate Action Network - Réseau action climat Canada, 2019. Canada's Fair Share towards limiting global warming to 1.5°C. <https://climateactionnetwork.ca/2019/12/02/canadas-fair-share-towards-limiting-global-warming-to-1-5c/>

<sup>2</sup> Table 3-10 (p85) in 2020 NIR Part 1.

<sup>3</sup> Elton Chan et al., "Eight-Year Estimates of Methane Emissions from Oil and Gas Operations in Western Canada Are Nearly Twice Those Reported in Inventories," *Environmental Science & Technology*, 54, 23, (2020). <https://pubs.acs.org/doi/10.1021/acs.est.0c04117>

We are encouraged that many of the recommendations we submitted in May 2022 in response to the department's discussion paper have been incorporated into the proposed regulatory framework. These recommendations are repeated here. The Government of Canada should ensure there is no weakening of the policy from the proposed framework.

**Environmental Defence recommends that the new methane regulations achieve near-zero methane by 2030.**

The following measures have already been incorporated by ECCC in the proposed framework, and must not be weakened:

- **Drive individual sources of methane toward zero emissions.**
- **Eliminate venting and flaring.** Venting and flaring are responsible for a significant amount of methane emissions, and venting emissions are consistently underreported. We commend ECCC for including this in the proposed framework. The proposed rules covering flaring should be clarified to include both gas and oil sites.
- **Require zero-bleed pneumatic devices and pumps** for all new and existing sites. Cost-effective zero-emissions pneumatic pumps and controllers are available now.<sup>4</sup> The U.S. EPA has proposed draft regulations that require elimination of all pneumatics emissions.
- **Monitoring:** Near-continuous monitoring of all methane emissions at a facility-level.

The Government of Canada should strengthen the existing regulatory approach by including the following measures:

- **Enacting regulations early.** The proposed rules should come into force in 2025 with the goal of achieving substantial reductions in the early years. This approach will achieve needed early and low-cost reductions in the sector and would be in line with proposed measures in the United States.
- **Eliminate compressor emissions** through electrification or other optimization. Some operators are already voluntarily electrifying compressors via zero-emission electric motors or hybrid compressor units, demonstrating that the technology is feasible. Recent studies show that unburned methane from compressors is a much greater source than current inventory estimates.
- **Stronger measurement, monitoring and verification requirements in the regulations are needed.**
  - **Comprehensive, monthly leak detection and repair (LDAR) surveys at all sites.** It is well-established that equipment leaks are unpredictable, showing the need for frequent inspections to identify and repair leaks. Other jurisdictions are moving to this frequency including Colorado, which requires monthly inspections of all new sites.
  - **Require companies to report methane emissions by source**, which is currently required by the EPA.

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<sup>4</sup> Carbon Limits, Zero Emission Technologies for Pneumatic Controllers in the USA: Applicability and Cost Effectiveness (Aug. 1, 2016), [http://catf.us/resources/publications/files/Zero\\_Emitting\\_Pneumatic\\_Alternatives.pdf](http://catf.us/resources/publications/files/Zero_Emitting_Pneumatic_Alternatives.pdf) (Carbon Limits).

- **Require the federal government to conduct regular top down measurements** (airplane, helicopter, or drone) to ensure that companies are complying with the regulations. These measurements should be shared publicly to ensure transparency.
- **Ensure equivalency agreements achieve equivalent methane reductions.** In the past, the Government of Canada has granted an equivalency agreement to provinces despite weaker provincial rules. Equivalency agreements should only be considered where the provinces can demonstrate that their regulations can achieve equivalent methane reductions to the federal rules.
- **Uphold the Polluter Pay Principle**, by ensuring oil and gas companies are responsible for bearing the cost of methane reductions. Methane mitigation measures are low cost to negative cost. Up to 80 per cent of oil and gas measures and up to 98 per cent of coal measures could be implemented at negative or low cost.<sup>5</sup> However, it is critical that Canadian taxpayers not subsidize methane emissions reduction measures, especially given that many will result in savings for oil and gas companies.

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<sup>5</sup> United Nations Environment Programme and Climate and Clean Air Coalition, Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions (2021).  
<https://www.unep.org/resources/report/global-methane-assessment-benefits-and-costs-mitigating-methane-emissions>