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Submission to Environment and Climate Change Canada

*Reducing Methane Emissions from Canada's Oil and Gas
Sector:*

Discussion Paper Recommendations

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Environmental Defence, Climate Action Network and Stand.earth welcome the Government of Canada's commitments to address methane emissions from Canada's oil and gas sector and the development of new federal regulations for 2030.

Methane is an extremely powerful greenhouse gas, with an impact 86 times higher than that of carbon dioxide.¹ 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.

In addition to addressing the climate crisis, tackling methane emissions results in improved air quality, thereby saving lives and reducing asthma-related hospital visits.²

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 2019.³ Currently, federal regulations require the oil and gas sector to reduce methane emissions 40-45% below 2012 levels by 2025 and based on evidence from recent studies, it's unlikely that the target will be met without stronger regulations. Canada must take a bolder approach than it has in the past to tackling methane emissions from the oil and gas sector.

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.⁴ 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.

Our organizations recommend that the methane regulations achieve near-zero methane by 2025 with the following measures:

- **Eliminate venting and flaring.** Venting and flaring are responsible for a significant amount of methane emissions, and venting emissions are consistently underreported.

¹ Gunnar Myhre et al., "Anthropogenic and Natural Radiative Forcing," in *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (2013), 714.

https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf

² 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>

³ Table 3-10 (p85) in 2020 NIR Part 1.

⁴ 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>

Some U.S. states have already implemented strong regulations for venting and flaring (for example, Colorado has prohibited routine venting and flaring at all wells).

- **Require zero-bleed pneumatic devices and pumps** for all new and existing sites. Cost-effective zero-emissions pneumatic pumps and controllers are available now.⁵ The U.S. EPA has proposed draft regulations that require elimination of all pneumatics emissions.
- **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.
- **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.
- **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.
- **Address oilsands methane emissions** and commit to making significant reductions by 2030.
- **Uphold the Polluter Pay Principle**, by ensuring oil and gas companies are responsible for bearing the cost of methane reductions.

Achieving near-zero emissions by 2025

This is a critical opportunity for Canada to show global leadership. The International Energy Agency has called for the world to eliminate methane emissions by 75% by 2030. 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.

Similarly, the Oil and Gas Climate Initiative (OGCI), a group of the 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.

As the government designs a cap on emissions from the oil and gas industry, it is critical that the targets set reflect the science. 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, emissions

⁵ 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 (Carbon Limits).

must be reduced by at least 60% below 2005 levels by 2030.⁶ Therefore 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.

Without ambitious, short-term methane reductions, the sector will not keep pace with Canadian emissions reduction targets.

Upholding the Polluter Pays Principle

As mentioned above, 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.⁷ 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.

Unfortunately, the government has continued to subsidize the oil and gas industry under the guise of achieving environmental outcomes and job creation. This includes the creation of the \$750 million Emissions Reduction Fund (ERF).

However, this violates Canada's commitment to end fossil fuel subsidies by 2023. According to the internationally recognized World Trade Organization definition, these programs are clearly fossil fuel subsidies.⁸ Furthermore, this approach also violates the Polluter Pays Principle enshrined in Canadian law, which places responsibility on those who cause the damage to bear the costs.⁹

Paying oil and gas companies for methane mitigation socializes the environmental cost of fossil fuel production, while allowing oil and gas companies to reap enormous benefits from public resources. Oil and gas companies have profited immensely for decades from activities that are fueling the climate crisis as well as polluting our land and water.

An audit conducted of the Emissions Reduction Fund by the Commissioner of the Environment and Sustainable Development found the ERF was poorly designed, that there was no evidence

⁶ 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/>

⁷ 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>

⁸ WTO. Agreement on Subsidies and Countervailing Measures ("SCM Agreement"). Available: https://www.wto.org/english/tratop_e/scm_e/subs_e.htm

⁹ Smith, R. & Hauptman, G. (2020) The Polluter-Pays-Principle in Canadian Legislation. Our Living Waters. Available: https://www.ourlivingwaters.ca/legislating_restoration

that the funds were ensuring credible and sustainable emissions reductions and that there was no requirement that companies use these funds to support worker retention, despite this having been a key claim for the initial creation of the program. The commissioner concluded that the Emissions Reduction Fund is an inefficient use of taxpayer dollars.¹⁰ The government should not continue to use public dollars to reduce emissions from the oil and gas industry, instead relying on strong regulations to achieve mitigation outcomes.

¹⁰ Commissioner of the Environment and Sustainable Development (2021) Report 4—Emissions Reduction Fund—Natural Resources Canada. Office of the Auditor General of Canada. Available: https://www.oag-bvg.gc.ca/internet/English/parl_cesd_202111_04_e_43912.html