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The Honourable Catherine McKenna, P.C., M.P.
Minister of Environment and Climate Change
House of Commons Ottawa, Ontario
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Dear Minister:

I am writing to you regarding the promised federal methane regulations for the oil and gas sector.

As you are aware, current climate commitments fall considerably short of what is necessary to limit global warming to well below 2°C, and that moreover, raising pre-2020 ambition is of outmost importance in closing the gap. Nevertheless, the 2017 Fall Report of the Commissioner of the Environment and Sustainable Development found that your department had abandoned efforts to meet Canada's 2020 emissions target. The Government is once again moving the goalpost to future years, where there is already a 66 Mt gap between announced policies and the 2030 target. Canada must make every effort to meet its near- and long-term climate commitments and to go further by raising its pre-2020 ambition. As part of these measures, the Government must take decisive action in tackling Canada's methane emissions.

I was pleased to see the Government of Canada following Alberta's climate leadership in announcing their intent to issue methane reduction measures for the oil and gas sector purportedly to be aligned with measures issued by Premier Notley. Ending wasteful practices that release methane into the atmosphere is necessary in achieving climate objectives, will result in better use of a valuable energy commodity, and could create new economic opportunities.

Reducing methane emissions is critical to climate action.

Unlike carbon pollution that remains in the atmosphere for centuries, methane has an atmospheric life of about a decade but a warming potential that is 100 times that of carbon dioxide.¹ On the one hand, it presents a significant climate risk by contributing to rapid warming. On the other hand, because of its short atmospheric life, its phase-out would result in near immediate environmental benefits. Efforts to reduce methane emissions could buy us time and increase our chances of staying

¹ Chandler, David L. "How to Count Methane Emissions." April 25, 2014. Accessed March 27, 2018.
<http://news.mit.edu/2014/how-count-methane-emissions-0425>

within climate safe limits, while the more difficult challenge of addressing carbon pollution is pursued.

In the North of 60, methane emissions have already contributed to $0.58 \pm 0.11^\circ\text{C}$ of warming,² and gone unaddressed, they will accelerate the retreat of glaciers, permafrost thaw, and the decline of Arctic sea ice. Loss of glaciers can impact the quality and quantity of water flowing from them, including in my home province of Alberta. Permafrost thaw can result in the release of large quantities of methane stored below ground, further contributing to global warming. Finally, the decline of Arctic ice will impact the livelihood of Canada's northern communities, will push many species population towards extinction, and result in climate feedback loops.

Canada's methane emissions are underreported.

To ensure effective policy design and regulatory enforcement, it is critical that the Government provide a better accounting of methane emissions. Recent studies by Carleton University,³ St. Francis Xavier University,⁵ David Suzuki Foundation,⁶ and Environmental Defence⁷ have found significant underreporting of methane emissions in the oil and gas sector. The majority of methane emissions in the sector are likely sourced at heavy oil operations that intentionally vent methane into the atmosphere. Not only does this contribute to global warming but it is a wasteful use of valuable energy resources. There are additional sources of methane in the oil and gas sector that may not be properly quantified, including emissions from tanks, pneumatic controllers, pumps, and well completion.

Beyond the oil and gas sector, the two other key anthropogenic sources of methane emissions are the agriculture and waste sectors. Your department's plan to reducing methane emissions in these two sectors is short on details and strategy. By investing in technology solutions to reduce methane from livestock, we could create new revenue streams for the agricultural sector (including in offset markets), displace fossil fuels used in farm equipment, and generate clean electricity. At the municipal level, opportunities exist or under development to reduce landfills gas and methane generated from waste and wastewater treatment facilities.

In the very least the regulation of methane emissions should include a requirement for more intensive monitoring, measurement and reporting of total emissions towards an updates more accurate reduction requirement.

To achieve climate objectives, quicker-term action on deeper reductions is necessary.

² Arctic Monitoring and Assessment Programme (AMAP). *AMAP Assessment 2015: Methane as an Arctic climate force*. (Oslo, AMAP, 2015), 92.

³ Johnson, Matthew, et al. "Comparisons of Airborne Measurements and Inventory Estimates of Methane Emissions in the Alberta Upstream Oil and Gas Sector." *Environmental Science & Technology* 51, no. 21 (October 17, 2017).

⁴ Zavala-Araiza, D. et al. "Methane emissions from oil and gas production sites in Alberta, Canada." *Elementa: Science of the Anthropocene* 6, no. 1 (2018).

⁵ Atherton, E, et al. "Mobile measurement of methane emissions from natural gas developments in northeastern British Columbia, Canada" *Atmospheric Chemistry and Physics* 17, 12405-12420 (October 19, 2017).

⁶ Werring, John H. *Fugitives in Our Midst: Investigating fugitive emissions from abandoned, suspended and active oil and gas wells in the Montney Basin in northeastern British Columbia*. (Vancouver, David Suzuki Foundation, 2018).

⁷ "Canada's Methane Gas Problem." Environmental Defence. Accessed March 27, 2018.

<https://environmentaldefence.ca/report/canadas-methane-gas-problem>

A recent comprehensive study of methane emissions found that “more than half of the anthropogenic methane emissions from Arctic nations come from the fossil fuel sector and that these contribute about a third of global methane emissions from fossil fuel sources.”⁸ The study underscores the particular importance of reducing methane emissions in the sector in Arctic nations. The long overdue methane regulations once promulgated and implemented will be a step forward and Government should avoid any further delays in their implementation. In addition, the Government should send a signal of its intent of requiring deeper reductions by going beyond the current proposed reductions.

A recent report by International Energy Agency found that there are technically feasible solutions in the oil and gas sector to avoid three quarters of methane emissions and that the sector can cut such emissions by up to half at no net cost. Other studies have come to similar conclusions on the extent of technically feasible opportunities and the low abatement cost. Taking into account emissions underreporting, abatement opportunities are likely much higher and compliance costs lower than that noted in the draft regulations. When abatement costs are contrasted with the federal price on carbon reaching \$50 per tonne, it is clear that there is room for a more ambitious target and that the Government should aim for quicker-term, deeper reductions.

Regulations should maximize conservation efforts.

The proposed regulations are also misaligned with Canada’s commitment to zero routine flaring by 2030. Although flaring results in lower greenhouse gas emissions than venting, it can also contribute to black carbon and it is wasteful practice. The draft regulation estimates that 4,000 facilities will resort to flaring while 3,000 will conserve the gas. The majority of vented gas is likely sourced at heavy oil production and the government can achieve multiple policy objectives by prohibiting venting and flaring at these sites.

Increased demand for natural gas could exacerbate Canada’s methane emissions. While it is important to fast track the phase-out coal-fired electricity emissions, we must ensure that production of fuel used in proposed replacement natural gas facilities do not result in increased methane emissions. To this end, it is important to note that eight large multinational natural gas sector companies recently committed to reducing methane emissions in the sector. The Government should ensure that a dash to natural gas does not exacerbate global warming and the energy sector maximizes conservation efforts.

Reducing methane emissions will create economic opportunities.

There are economic benefits to reducing methane emissions. Regulatory requirements will create new jobs in leak detection and repair, help Canada’s clean technology sector grow, and drive innovation. It will also result in the conservation and potential for sale of methane as an energy resource for use in industrial activity, for home heating, and as a cooking fuel. We cannot afford to waste this valuable energy resource. Canada can lead in the development of innovative solutions to reducing methane emissions but this will require government leadership and a more ambitious target that would maximize abatement opportunities.

⁸ AMAP, 39.

By applying a circular economy policy lens, conservation efforts should be maximized. The Government can and should end the wasteful release of methane into the atmosphere. To this end, Canada has an opportunity to lead in this area, achieve deeper methane emissions reductions and to work with international partners to achieve a global agreement for reductions. It is recommend that any federal regulation also include a requirement for the more accurate monitoring, measurement and reporting of total methane emissions and a five eyar review and update thereafter.

Sincerely yours,

ORIGINAL SIGNED BY

Linda Duncan, M.P.

Edmonton Strathcona

NDP Deputy Critic for Environment and Climate Change

NDP Critic for international Assistance

Deputy Chair, Standing Committee on Environment and Sustainable Development

cc. The Honourable Lawrence MacAulay, Minister of Agriculture and Agri-Food

The Honourable James Carr, Minister of Natural Resources