

SUBMISSION

Renewing British Columbia's Methane Equivalency Agreement

Joint comments and recommendations

Submitted to Environment and Climate Change Canada

Regarding: Oil and Gas Methane Regulations — Provincial Equivalency

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B R E A T H E
the lung association

Renewing British Columbia's Methane Equivalency Agreement

Joint comments and recommendations

The following comments were submitted by the Canadian Lung Association, David Suzuki Foundation, Environmental Defense Fund and Pembina Institute on August 28, 2024, in response to Environment and Climate Change Canada's (ECCC's) proposed Order Declaring that the Provisions of the Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds (Upstream Oil and Gas Sector) Do Not Apply in British Columbia, 2025.

Introduction

The Canadian Lung Association, David Suzuki Foundation, Environmental Defense Fund and Pembina Institute urge ECCC to strengthen the equivalency agreement (EA) as follows:

1. Enhance transparency and opportunities for public engagement in the development of methane regulations for the oil and gas sector and the negotiation and review of EAs.
2. Incorporate the results of site- and source-level direct measurements taken by operators or independent third parties into ECCC's initial and ongoing analysis of the adequacy of the British Columbia (B.C.) Drilling and Production Regulation (DPR) to achieve equivalent methane reductions as the federal rules.
3. Provide greater transparency regarding the inputs into ECCC's modelling and the assumptions ECCC used to compare methane reductions under the DPR and ECCC's Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds (Upstream Oil and Gas Sector) (federal methane regulations).

Immediate and deep reductions of methane from Canada's oil and gas sector are critically necessary to address the climate crisis¹ and ensure that Canada meets its climate commitments and greenhouse gas (GHG) reduction goals. Canada's federal government committed to

¹ Hiram Levy II et al., eds., *Climate Projections Based on Emissions Scenarios for Long-Lived and Short Lived Radiatively Active Gases and Aerosols*, U.S. Climate Change Science Programs Synthesis and Assessment Product 3.2 (U.S. Global Change Research Program, 2008), 64–65, archived September 26, 2023, at <https://web.archive.org/web/20230926220535/https://www.globalchange.gov/sites/globalchange/files/sap3-2-draft3.pdf>.

reducing methane emissions from the oil and gas sector by 40–45% below 2012 levels by 2025² and by 75% by 2030 from a 2012 baseline.³ ECCC’s federal methane regulations play a pivotal role in reaching these targets. Initial modelling by ECCC in 2018 of its current regulations estimated they would result in approximately 282 megatonnes of carbon dioxide equivalent (CO₂e) reductions, \$13.4 billion in avoided climate damages and \$1.6 billion in savings from using or selling conserved gas between 2018 and 2035.⁴ More recently, ECCC noted that these regulations “will not be sufficient to meet Canada’s new methane commitment” of reducing 2012 methane emissions by 75% by 2030 and has proposed amendments to address this deficiency.⁵

Under Canadian law, ECCC may rely on provincial regulations to ensure that it meets the federal government’s 2025 and 2030 emissions reductions targets. The Canadian Environmental Protection Act (CEPA) allows ECCC to suspend application of its methane reduction regulations based on a determination that application of provincial regulations will achieve equivalent emissions reductions as application of the federal rules.⁶ Additionally, the province must have laws in place that contain provisions similar to sections 17 and 20 of CEPA, providing for the investigation of alleged offences.⁷ On June 29, 2024, ECCC proposed an order declaring that the ECCC methane regulations do not apply in B.C. for 2025–2029 based on a proposed EA. The regulatory impact analysis statement (RIAS) for the proposed EA explains that the order and EA are based on a determination that B.C. has in place laws that contain similar provisions to sections 17 to 20 of CEPA providing for the right of investigation of alleged offences⁸ and that the DPR will result in slightly higher methane reductions than the federal regulations.⁹ ECCC estimates application of the DPR will result in cumulative methane reductions of

² Government of Canada, *Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds for the (Upstream Oil and Gas Sector)*, *Canada Gazette*, Part II, vol. 152, extra no. 1 (2018). (Hereafter referred to as “Federal methane regulations.”)

³ Government of Canada, “Reducing Methane Emissions,” modified July 18, 2024. <https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/reducing-methane-emissions.html>

⁴ Federal methane regulations.

⁵ Departments of Environment and Health, *Regulations Amending the Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds (Upstream Oil and Gas Sector)*, *Canada Gazette*, Part I, vol. 157, no. 50 (2023).

⁶ *Canadian Environmental Protection Act*, 1999, section 10(3).

⁷ *Canadian Environmental Protection Act*.

⁸ Government of Canada, *Order Declaring that the Provisions of the Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds (Upstream Oil and Gas Sector) Do Not Apply in British Columbia, 2025*, Regulatory Impact Analysis Statement, *Canada Gazette*, Part I, vol. 158, no. 26 (2024). (Hereafter referred to as “RIAS”).

⁹ “RIAS.”

5.75 megatonnes (Mt) compared to cumulative reductions of 5.25 Mt from application of the federal regulations.¹⁰

ECCC's reliance on EAs to obtain critically necessary methane reductions from the oil and gas sector underscores the import in getting such agreements right. ECCC must ensure that application of the provincial regulations will result in equivalent methane reductions as application of its rules. Unfortunately, the well documented problem of underestimation in methane emissions by operator reporting¹¹ and poor compliance rates with existing regulations¹² pose challenges to this determination and threaten the achievement of Canada's GHG reduction targets. In addition, the EA negotiation and review process occurs primarily behind closed doors and important data used in ECCC's equivalency modelling is not made publicly available.

We suggest revisions to the EA that will ensure the public has access to important information used by B.C. and ECCC to assess the efficacy of the DPR in achieving equivalent outcomes. We also suggest pathways to expand opportunities for public engagement on the development and review of the EA. Lastly, we request greater transparency and more granular information regarding ECCC's equivalency modelling.

Comments on Equivalency Agreement

Section 3.2

We urge ECCC to revise section 3.2 to require, rather than to allow, publication of any information listed in subsections 3.2.a, 3.2.b, and 3.2.c of the EA on a publicly accessible website for the following reasons.

Subsection 3.2.a concerns the number of new and existing oil and gas facilities and wells that are subject to the DPR. It is essential that this information be made public because the B.C. government uses equipment counts to model expected emission reductions from its regulations. In addition, stakeholders have an interest in understanding if there are gaps in the regulations, for example if certain types of facilities are not covered by requirements. Making this information public will not only help third parties verify the accuracy of the provincial emissions model but will also help to indicate the extent to which the regulations require reductions from all abatable emissions sources.

¹⁰ "RIAS."

¹¹ K. MacKay et al., "A Comprehensive Integration and Synthesis of Methane Emissions from Canada's Oil and Gas Value Chain," *Environmental Science & Technology* 58, no. 32 (2024).

¹² Office of the Auditor General of Canada, *Emission Reductions Through Greenhouse Gas Regulations—Environment and Climate Change Canada* (2023), 19. (Hereafter referred to as "Auditor General report").

Subsection 3.2.b concerns information assessing the implementation and effectiveness of the DPR in reducing methane emissions, including the methodology, analysis undertaken, and results of emissions reductions. The public has a keen interest in understanding the efficacy of the DPR in reducing emissions, as well as reviewing the calculations of emissions reductions. Accurate reporting of emissions is critical to an accurate assessment of the efficacy of the DPR in reducing methane from oil and gas facilities. Providing transparency, and thus the opportunity for public input, on emissions calculations and reductions, is essential.

Lastly, subsection 3.2.c. covers “a summary of compliance verification activities and enforcement or sanctions measures applied to facilities and wells,” as well as detailed information regarding these activities and measures. Compliance rates must be high for B.C. to realize the reductions available under the DPR. Analysis of compliance rates by independent third parties demonstrates poor compliance rates with the DPR. In 2023, the Office of the Auditor General of Canada found that “poor compliance rates during the first few years of the regulations indicate that Canada is at risk of failing to meet its methane reduction target.”¹³ Similarly, a 2023 study of the efficacy of B.C.’s methane regulations conducted by Johnson et al., found compliance rates in the first years of B.C.’s methane regulations were low (62%).¹⁴ Non-compliance compromises regulatory efficacy and the ability of the province to deliver on reduction targets.

The public has a keen interest in information on the implementation and effectiveness of the DPR in reducing methane emissions and on the compliance rates of operators. Transparency regarding how well the provincial regulations are working to reduce methane emissions is a matter of significant public interest, and therefore the EA should require publication of the information listed in section 3.2. We urge ECCC to revise this section to read as follows “provide ~~or~~ and cause to be published on a publicly accessible website.”

Second, we urge ECCC to require that B.C. incorporate the results of direct measurements of oil and gas emissions in the “information assessing the implementation and effectiveness of the DPR in reducing methane emissions” required in subsection 3.2.b. Numerous studies, including a recent synthesis study, document that operator reporting relying on emissions factors greatly underestimates actual emissions.¹⁵ Emerging direct measurement technologies are rapidly transforming the ways in which operators and regulators can calculate emissions. For example, the Environmental Defense Fund’s recently launched MethaneSAT provides global, high-

¹³ Auditor General report.

¹⁴ Marie France Johnson et al., “Assessing the effectiveness and efficiency of methane regulations in British Columbia, Canada,” *Climate Policy* 23, Issue 10 (2023).

¹⁵ “A Comprehensive Integration and Synthesis of Methane Emissions from Canada’s Oil and Gas Value Chain.”

resolution coverage of methane emissions from oil and gas facilities with high precision.¹⁶ Reconciliation of source-level data and direct measurement is the most accurate method to ascertain actual emissions and thus verify the efficacy of the DPR emissions control and inspection requirements. We urge B.C. and ECCC to rely on direct measurements, where available, when assessing the effectiveness of the DPR in reducing methane emissions. Specifically, we suggest ECCC modify section 3.2.b as follows: “information assessing the implementation and effectiveness of the DPR in reducing methane emissions (in CO₂e), including the methodology **which must include direct measurements of oil and gas facility methane emissions** where available, analysis undertaken and results of calculations of emission reductions....”

Section 3.3

We have three comments on this section.

First, consistent with our comments on section 3.2, we urge ECCC to revise section 3.3 to require publication of the listed information on a publicly accessible website. The same public interest in understanding how well the DPR is working to reduce methane emissions underpins this request for enhanced transparency and accountability.

Second, we suggest ECCC clarify the language in section 3.3. The language requires B.C. to provide or cause to be published “results associated with sections 41.1, 52.02, 52.03, 53.04, 52.05 and 52.06 of the DPR.” It is not clear which results must be published. Sections 41.1, 52.02, 52.03, 53.04, 52.05 and 52.06 of the DPR include leak detection and repair requirements, hydrocarbon destruction equipment operational requirements, and control requirements for tanks, compressors, pneumatic devices and pneumatic pumps. Some of these requirements include recordkeeping or reporting requirements. We urge ECCC to require publication of all records and reports required by these provisions, as well as quantification of the emissions reductions stemming from application of these requirements.

Third, section 3.3 requires B.C. provide or cause to be published “reported and modeled emissions for oil and gas facilities in British Columbia.” We urge ECCC modify this provision to require B.C. publish the results of direct measurements of oil and gas emissions, including those “which are associated with studies or funded or supported by British Columbia,” as referenced in section 3.8.iii of the EA, in addition to modelled and reported emissions. As discussed above, direct measurements by operators or generated by credible and independent sources such as MethaneSAT enable more accurate determination of actual emissions and, consequently, of the

¹⁶ Environmental Defense Fund, “How MethaneSAT is different from other satellites.”
<https://www.edf.org/methanesat/how-this-satellite-different>

efficacy of the DPR control than operator-provided reports that rely on traditional emissions factors. The EA already contemplates the collection of measurement data by both B.C. and ECCC as it requires both parties to share information regarding “activities relevant to oil and gas methane measurement” (section 3.8.iii). We request that measurement data be shared with the public as well as between the parties to the EA. An accurate understanding of the efficacy of the DPR control and inspection requirements is necessary to ensure application of the provincial regulations achieves equivalent outcomes as application of the federal methane requirements.

Our suggested language for section 3.3 is as follows: “British Columbia will, to the extent available, ~~provide or~~ cause to be published on a publicly accessible website a summary of results associated with sections 41.1, 52.02, 52.03, 53.04, 52.05 and 52.06 of the DPR, including reported, ~~and modeled~~ **and measured** emissions for oil and gas facilities in British Columbia.”

Section 3.6

We request the EA require that B.C. provide public notice of, and an opportunity for public comment on, any proposed amendments to sections 61.1 to 61.4 of the ERAA and sections 41.1, 52.02, 52.03, 52.04, 52.05, and 52.06 of the DPR, along with any amendments or modification of standards or guidelines that are incorporated by reference into the relevant provisions of the DPR. Public notice of, and opportunity to comment on, potential revisions to methane regulations provides an opportunity to interested stakeholders to weigh in on proposed revisions and to provide relevant information to the regulators. Robust public involvement is essential to sound policy making.

We request the following revision to section 3.6 to enhance opportunities for stakeholder involvement in policy development regarding actions to reduce methane emissions from oil and gas facilities. “British Columbia will provide written notice to Canada **and public notice and an opportunity to comment by publishment on a publicly accessible website** of proposed amendments to sections 61.1 to 61.4 of the ERAA and sections 41.1, 52.02, 52.03, 52.04, 52.05, and 52.06 of the DPR, along with any amendments or modification of standards or guidelines that are incorporated by reference into the relevant provisions of the DPR.”

Section 3.8

We urge ECCC and B.C. to ensure that the public has access to the information listed in section 3.8 that must be shared between the parties to the EA. This information includes a summary of compliance verification activities, enforcement measures and activities relevant to oil and gas methane measurement. As discussed above, information on compliance verification activities and enforcement measures is critical to understanding the efficacy of the DPR since poor compliance rates undermine even the most robust regulations. Information regarding

measurement studies of methane emissions from B.C.'s oil and gas facilities is critical in understanding the efficacy of the DPR in reducing methane emissions. Section 3.8 requires ECCC and B.C. to share information on direct measurement studies but does not require public disclosure of such information. Achievement of Canada's GHG reduction targets is a matter of significant public interest. A determination that the application of the province's regulations is not achieving intended methane mitigation effects the ability of Canada to achieve its methane reduction target and may be the basis for future policy actions at both the provincial and federal levels. Interested stakeholders will want to be involved in the development of such policies at the outset. We urge ECCC and B.C. to make public the information listed in section 3.8 since the public has a strong interest in information relevant to the continued adequacy of the DPR in achieving equivalent outcomes as application of the federal rules.

Section 4

We urge ECCC to provide the public with an opportunity to comment during ECCC's annual review of the EA and to consider measurement data and compliance rates when conducting its annual review.

Analysis of compliance rates by independent third parties demonstrates poor compliance rates with the DPR. In 2023, the Office of the Auditor General of Canada found that "poor compliance rates during the first few years of the regulations indicate that Canada is at risk of failing to meet its methane reduction target."¹⁷ Similarly, a 2023 study of the efficacy of B.C.'s methane regulations conducted by Johnson et al. found compliance rates in the first year of B.C.'s methane regulations were low (62%).¹⁸ ECCC must consider compliance rates when reviewing the ongoing adequacy of the B.C. regulation to achieve equivalent outcomes. Low compliance rates may indicate that application of the provincial regulations does not result in equivalent emissions reductions as ECCC's initial modelling estimates.

We urge ECCC to consider all available, scientifically sound, source- and site-level measurement data, where available, during its annual review. While section 3.8 requires ECCC and B.C. to share information regarding "activities relevant to oil and gas methane measurement which are associated with studies funded or supported by British Columbia...or Canada," neither this section nor section 4.4. explicitly require ECCC to consider this information when determining the continued adequacy of the agreement to achieve equivalent outcomes. Section 4.4. should make it explicit that the annual review will be based on the information shared between the parties pursuant to section 3.8, any public comments received on such information, and on any

¹⁷ Auditor General report, 20.

¹⁸ "Assessing the effectiveness and efficiency of methane regulations in British Columbia, Canada."

scientifically sound direct measurement data available, including measurement data gathered by independent third parties such as MethaneSAT.

Section 4.4

We respectfully request greater transparency around the negotiation of a renewed agreement and any revisions to this EA were ECCC to finalize amendments to its methane regulations. We urge ECCC to provide for stakeholder engagement, including providing an opportunity for the public to comment on any proposed revisions to a renewed agreement, or revisions to this EA, any time that it negotiates a new equivalency agreement with the province. This will ensure an opportunity for interested stakeholders to bring relevant information, including potentially new information, to ECCC's attention that may impact the equivalency determination or the substance of a new agreement. The reassessment of the equivalency agreements, as required under section 4.4, must be done in a transparent manner. The data and methodologies used as part of any reassessment should be made public as part of a consultation process. A wide range of stakeholders have a strong interest in ensuring the government's level of ambition is met or exceeded in implementation of provincial regulations as a substitute for federal regulations.

Comments on Regulatory Impact Analysis

Modelling

We urge ECCC to provide more detail and transparency regarding its modelling. Specifically, we urge ECCC to explain if it made any adjustments to the baseline emissions scenario to account for the results of direct measurements of B.C. oil and gas facility emissions, how it groups emissions sources for purposes of scaling its baseline inventory to the national inventory report (NIR) and provide more detail regarding assumptions used to calculate emissions reductions.

First, we ask ECCC to clarify whether the emissions estimates for each source contained in the baseline scenario reflect the updates ECCC has made to the 2024 NIR. We understand ECCC's methodology when conducting its equivalency analysis for EAs to be as follows. ECCC builds a baseline inventory using bottom-up engineering emissions estimates. ECCC then scales its inventory to agree with the NIR. The recent updates to the NIR resulted in an adjustment to the NIR emissions estimates based on the results of direct measurement campaigns. This adjustment brought the 2024 NIR estimate of emissions in line with an estimate of 2024 emissions based on the results of over a decade of direct measurements of methane emissions.¹⁹

¹⁹ "A Comprehensive Integration and Synthesis of Methane Emissions from Canada's Oil and Gas Value Chain," 14203.

If the modelling used in the equivalency outcome analysis did not incorporate the recent adjustments to the NIR based on direct measurements, we respectfully request ECCC revise the baseline scenario emissions estimates to reflect the recent adjustments to the NIR and re-run the modelling. This will ensure that determinations of equivalency are based on the most accurate and best available emissions modelling. Our recommendation aligns with that of the Office of the Auditor General of Canada who recommended ECCC “allow the use of the most recent measurement-based data to improve the accuracy of its estimates of methane emissions from the oil and gas sector.”²⁰

Second, we request ECCC provide more detail regarding how it scales estimated emissions with the NIR. The RIAS provides emission estimates for five sources of emissions: compressors, fugitives, routine venting, pneumatic devices, and surface casing vent flows. In Table 1 of the RIAS, these sources are not grouped according to facility site (production facilities, gas processing plants, etc.). We would like to better understand if ECCC scaled emissions solely by emissions source type (e.g., comparing emissions from all pneumatics at any facility type in the bottom-up inventory to the NIR), or if ECCC scaled emissions by grouping emissions sources by source and facility type, or if ECCC scaled emissions in some other way.

Third, we request ECCC provide a detailed discussion and explanation regarding the assumptions it relies on when calculating emissions reductions from the relevant requirements of the DPR. The U.S. Environmental Protection Agency (EPA) provides significantly greater detail regarding its modelling of anticipated reductions from proposed oil and gas methane regulations. For example, when modelling anticipated reductions from application of its leak detection and repair requirements, the EPA takes into account the leak rate at each facility, repair times, and the expected percent reductions in methane emissions for different inspection frequencies.²¹ An annual inspection frequency is assumed to reduce emissions by 46%, while a monthly inspection frequency is assumed to reduce emissions by 86%. ECCC merely estimates total reductions for each emission sources but provides little explanation for the basis of these reductions. ECCC notes that “emission reductions were estimated in a manner similar to those described in the Regulatory Impact Analysis Statement for the Federal Regulations.”²² ECCC does not provide any additional detail regarding what assumptions go into its estimate of source-level reductions in its federal regulations. Greater detail is required for the public to assess the adequacy of ECCC’s conclusion that application of the B.C. regulations will achieve equivalent outcomes.

²⁰ Auditor General report, 20.

²¹ U.S. Environmental Protection Agency, *Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review — Background Technical Support Document* (2022), Table 5-2a, 5-10.

²² “RIAS,” 6.

Regulatory development section

We suggest that in the future ECCC open negotiations concerning renewals of EAs to broader stakeholder engagement and provide opportunities for the public to comment on revisions to this EA and to any renewed EA. As noted above, we have several questions and concerns with the modelling that underpins the determination that application of B.C.'s regulations will achieve equivalent methane reductions as the federal rules and several suggestions for how to strengthen the EA and the EA review process to allow for more transparency and public input. Additional early input from stakeholders and an opportunity for public comment can ensure a more robust agreement and improve public trust and confidence in the process.

Conclusion

We appreciate the opportunity to comment on the proposed EA for B.C. We look forward to future discussions with ECCC and the province on ways to increase transparency, enhance opportunities for public involvement and ensure that application of the B.C. DPR maintains ongoing equivalent methane reductions from oil and gas facilities as would application of the federal methane rules.

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