Comments on the draft equivalency agreement for the B.C. methane regulations

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The following comments are submitted in response to the Environment and Climate Change Canada (ECCC) draft Agreement on the Equivalency of Federal and British Columbia Regulations Respecting the Release of Methane from the Upstream Oil and Gas Sector in British Columbia, 2020. In summary, our recommendations are:

1) The draft equivalency agreement should be made conditional on the B.C. regulations being updated to reflect ECCC and B.C.'s new interpretation of the leak detection and repair requirements, rather than relying on unenforceable guidance materials. If the regulations are updated, they will reflect best practice for leak detection and repair.

2) ECCC should model the effectiveness of B.C.'s methane regulations using the new data from the 2018 field study to determine whether the regulations achieve equivalency.

3) Due to the considerable uncertainty in the data and modelling, the draft equivalency agreement should be amended to state that ECCC will rescind the agreement if it cannot be demonstrated that BC regulations are achieving equivalent reductions.

- **Leak detection and repair**

The leak detection and repair (LDAR) provisions are not sufficient to address underreported methane emissions from leaks and fall below the standard of federal regulations. Multiple peer-reviewed studies have demonstrated that a significant portion of methane emissions are caused by leaks from abnormal operating conditions that occur randomly across a suite of facility types. The only effective solution to identifying and fixing these leaks is through frequent (e.g. at least 3 times per year) instrument-based inspections.

The BC regulations only require frequent inspections at a small portion - 7% - of BC oil and gas sites. The remaining 93% are subject to annual surveys (58%) or "screenings" (35%). These ratios were calculated from the facility and wellsite counts provided by BC OGC, and the BC

government very recently confirmed that the BC regulations only require frequent inspection at this small portion of sites. **Since leaks can occur at any site, BC's approach will allow many leaks to go undetected, unreported, and unrepaired.** The sites which will only be screened are of particular concern. Attempting to locate leaks of natural gas (which is colorless and odorless at most upstream facilities) with only human senses is ineffective and a sharp deviation from established best practice across North America.

ECCC's assessment of BC Oil and Gas Commission's methane rules overestimates the effectiveness of the B.C. LDAR provisions. ECCC reports that their analysis finds that 60% of facilities will require comprehensive, frequent LDAR, in contrast to the much lower figure (7%) based on the facility counts provided by BC OGC.

The overall comparison between the rules is complex, but the facility counts that ECCC is using appear to substantially overestimate the number of sites that would be subject to LDAR inspections under the BC rules, and substantially underestimate the number of sites exempt from inspection requirements under the BC rule. This leads to an overestimation of the effectiveness of the BC rule.

Critically, ECCC and the OCG have indicated that the discrepancy in the calculation of the portion of sites subject to frequent, comprehensive LDAR – the 7% vs. 60% discrepancy - is due in part to their interpretation of the BC regulations. According to this interpretation, the BC regulations are *intended* to treat single wells nearby batteries ("co-located") as part of the same facility and therefore subject to comprehensive LDAR. According to the OGC, this interpretation will be outlined in forthcoming guidance materials ECCC and OGC have acknowledged that this interpretation is not currently reflected in the regulations.

This approach is problematic for two reasons. Most importantly, as stated by the OGC, guidance materials are not enforceable, and therefore should not be counted on by ECCC to result in emissions reductions. BC has been clear, in the rule and in discussions with stakeholders, about what operators are *required* do to under the regulations, and it is not credible to assume that all operators will voluntarily do more than is required by law.

In some cases, such as including a co-located well production site in an OGI survey of an adjacent battery, the marginal cost of the over compliance would be very small and we believe that many operators would be open to the suggestion contained in the OGC guidance. In other cases, such as treating a set of wells only subject to annual surveys as a multi-well battery, ECCC is assuming that the operator will voluntarily upgrade the survey frequency from once a year to three times per year, despite the absence of a positive track record of operators doing so.

While we are pleased that OGC intends to encourage operators to conduct more frequent LDAR, it is not appropriate for ECCC to assume that these voluntary actions will take place in their equivalency assessment.

Recommendation 1)

It is encouraging to hear that BC's intent is for wells permitted as single wells that are physically proximate to a battery to be included in comprehensive LDAR. This must be codified in the regulations to ensure that there is consistency across the industry and to ensure that the anticipated emissions reductions are achieved. **If the BC regulations are codified as such, they will reflect best practice for leak detection and repair.**

The draft equivalency agreement should be conditional on the regulations being updated by the OGC to reflect this new interpretation of BC's LDAR rule. The present approach of relying on guidance materials, which are not enforceable, is not sufficient to ensure that these emissions reductions will be achieved. Unless the regulations are updated, it is inappropriate for ECCC to assume that any single well sites will be covered by comprehensive LDAR.

- **Field study data**

Compounding the issue of inconsistent data in the modelling, the B.C. government and ECCC are currently using extremely out of date and flawed data to model the expected emissions reductions resulting from the BC regulations. The data is not specific to the B.C oil and gas sector and in some cases is based on studies from that are 20 years old. Some of the assumptions in the model are clearly inaccurate.

The BC government and ECCC commissioned a field study in the summer of 2018 to better understand the types of equipment in the oil and gas industry in BC, and the potential sources of emissions. The study results have been submitted to the B.C government but have not been shared as promised, and are not being used in the modelling.

Recommendation 2)

ECCC should model the effectiveness of BC's methane regulations using the new data from the 2018 field study to determine whether the regulations achieve equivalency. Using the inaccurate and out of date data makes it impossible to confirm whether the B.C. regulations will achieve the outcomes of the federal regulations.

- **Draft equivalency agreement**

Due to the issues outlined in the submission, there is significant uncertainty around whether the BC regulations will achieve an equivalent outcome to the ECCC regulations. ECCC has

committed to reviewing the equivalency agreement annually. ECCC should use the information provided by BC on an annual basis to evaluate on an ongoing basis the effectiveness of the regulations to ensure that they are equivalent.

Recommendation 3)

Section 4.3 of the equivalency agreement should be amended to state that the federal government commits to reviewing the information collection in Section 3 to reassess equivalency annually and will rescind the agreement if it cannot be demonstrated that BC regulations are achieving equivalent reductions. Given the negative impacts of policy uncertainty on industry, we strongly urge ECCC to use conservative assumptions about the effectiveness of BC regulations in its analysis, to reduce the risk of re-imposing federal regulations in the future as new information becomes available. ECCC should also make it clear that future determinations of the degree of mitigation occurring from LDAR will depend on actual data for the frequency of LDAR inspections, not assumed LDAR frequencies based on OGC guidance.