

# Comments on Red Tape Reduction Changes to Directive 060

## Pembina Institute comments and recommendations

Submitted to the Alberta Energy Regulator

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### Comment 1

#### Section

General comment

#### Issue

The AER was directed to engage in a red tape reduction effort with respect to Directive 060.

#### Remarks

The Pembina Institute cautions that a mandate to minimize the number of “must” statements contained in regulations has the potential to reduce the effectiveness of those regulations. However, in this case, we recognize and support the Alberta Energy Regulator’s conscientious approach to streamlining Directive 060 without significantly changing its substance or jeopardizing expected emissions reduction outcomes.

## Comment 2

### Section

Section 3

### Issue

Section 3 requirements now clearly apply to all non-routine events.

### Remarks

Given the common confusion among duty holders that the previously published version of this section applied only to well testing, the Pembina Institute supports the additional clarity that has been added around the broader application of this section to all non-routine events.

## Comment 3

### Section

Section 5

### Issue

The AER has created an exemption to equipment-specific vent gas limits for emissions testing purposes.

### Remarks

The Pembina Institute recognizes the importance of controlled release testing to assess and compare the performance of emerging measurement and monitoring technologies, including the testing done at the NGIF Emissions Testing Centre. For that reason, the Pembina Institute supports the creation of special permissions for controlled release testing, within reasonable limits.

Accurately detecting and quantifying methane emissions is critical to understanding methane emissions, improving reporting, credibly telling success stories, and achieving the deepest possible methane emissions reductions. As measurement and monitoring technologies continue to proliferate, proving their capacities in testing environments that simulate real-world conditions as closely as possible is essential.

The Pembina Institute also supports the guardrails that have been placed around the exemption, including the continued application of the overall vent gas site limit, the requirement for a qualified person to provide a test plan, notification requirements, maximum test volume, and the requirement to provide a test report upon the AER's request.

## Comment 4

### Section

Section 8.10.6

### Issue

The AER has streamlined the approval process for alt-FEMP technologies, based on modelling performed by Highwood Emissions Management.

### Remarks

The Pembina Institute recognizes the importance of the alt-FEMP program, especially as it creates flexibility for companies to use best available measurement and monitoring technologies. This is essential given that methane emissions in Alberta and elsewhere have historically been underestimated and underreported.<sup>1,2</sup>

Methane measurement and monitoring is advancing rapidly and a growing array of sensors with varying modes of deployment, advantages, and use cases are available. Creating pre-approvals for some technologies based on scientifically rigorous modelling makes good sense. This will make it easier for companies to integrate proven measurement and monitoring technologies into their leak detection programs.

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<sup>1</sup> Bradley Conrad, David Tyner, Hugh Li, Donglai Xie, and Matthew Johnson, "A Measurement-Based Upstream Oil and Gas Methane Inventory for Alberta, Canada Reveals Higher Emissions and Different Sources than Official Estimates," *Communications Earth & Environment* 4, no. 1 (2023), 1–10. <https://doi.org/10.1038/s43247-023-01081-0>

<sup>2</sup> Katlyn MacKay, Martin Lavoie, Evelise Bourlon, Emmaline Atherton, Elizabeth O'Connell, Jennifer Baillie, Chelsea Fougère, and David Risk, "Methane Emissions from Upstream Oil and Gas Production in Canada Are Underestimated," *Scientific Reports* 11, no. 1 (2021), 8041. <https://doi.org/10.1038/s41598-021-87610-3>

# Comment 5

## Section

Section 8.6.1

## Issue

The AER has removed language meant to encourage but not require operators to prevent or control emissions from legacy pneumatics.

## Remarks

While the Pembina Institute believes it is best practice to prevent or control emissions from pneumatics, we also understand that the inclusion of this clause prevented companies from collecting TIER offsets when switching to zero-bleed pneumatics due to non-additionality. This meant that the language of the regulation inadvertently cancelled out an incentive for companies to take more ambitious action. Therefore, for the purposes of the present engagement, we support the removal of this clause.

We believe there is a legitimate yet limited role for TIER offsets in cases where technological solutions and regulatory best practices are not well established. That is no longer the case with regard to pneumatics. At the same time, recent measurement studies show that pneumatics remain a significant source of methane emissions in Alberta.<sup>3</sup> Therefore, the Pembina Institute recommends that in future regulatory development, the AER consider mandating a phase-out of existing emitting pneumatics. We would be pleased to have the opportunity to engage with the AER to discuss details.

# Comment 6

## Section

Appendix 1

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<sup>3</sup> Conrad et al., “A measurement-based upstream oil and gas methane inventory for Alberta”

## Issue

The AER has changed the definition of flare gas to exclude gas combusted or oxidized in an incinerator, enclosed combustor, or catalytic oxidizer.

## Remarks

The Pembina Institute recognizes that definitions may have contributed in part to the 2023 industry-wide solution gas flaring exceedance. However, we believe that the exceedance was also caused by a combination of industry growth and operators taking the lowest-cost alternative to venting. Therefore, changing definitions will not be an adequate solution to the problem, and future regulations will require a substantive policy change.

While flaring is preferable to venting, it is not an acceptable mitigation option in routine cases. Routine flaring is wasteful, unnecessarily emits carbon dioxide and uncombusted methane, and harms air quality and health.<sup>4,5</sup> Leading jurisdictions such as Canada, the U.S. and EU, as well as voluntary initiatives such as the World Bank Zero Routine Flaring Initiative, are moving to end routine flaring. Maintaining Alberta's leadership on methane will require that it do the same, and the Pembina Institute would be pleased to work with the AER to develop a feasible policy pathway to achieve this outcome.

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<sup>4</sup> Jordy Motte, Rodrigo Alvarenga, Joris Thybaut, and Jo Dewulf, "Quantification of the Global and Regional Impacts of Gas Flaring on Human Health via Spatial Differentiation," *Environmental Pollution* 291 (2021): 118213. <https://doi.org/10.1016/j.envpol.2021.118213>

<sup>5</sup> Wesley Blundell and Anatolii Kokoza, "Natural Gas Flaring, Respiratory Health, and Distributional Effects," *Journal of Public Economics* 208 (2022): 104601. <https://doi.org/10.1016/j.jpubeco.2022.104601>