

**QUANTIFICATION PROTOCOL FOR  
LANDFILL GAS CAPTURE AND COMBUSTION:**

*Technical and Policy Issue Summary*

Submitted to:  
Alberta Environment

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## ***Background***

In conjunction with the development of the protocol document, a listing of key technical and policy issues were tracked for discussion as part of the technical and stakeholder review processes. The following document provides a listing of the key issues for discussion. Many of the issues have both a technical and policy component and are listed under both sections, as required.

## ***Summary of Technical Issues***

The following technical issues may be considered as part of the technical and stakeholder review processes:

- Is the proposed baseline treatment for sites with existing uncontrolled flares reasonable?
- Are there circumstances where the exclusion of the flare pilot fuel in the calculation could be material?
- Are destruction efficiencies for controlled flares required under this protocol or is it acceptable to assume that most flares exceed 98-99% combustion efficiency under proper operation and as such fit within the assumption of the Environment Canada emission factors (99.5 % destruction)?
- Are the chosen emission factors for landfill gas appropriate (Natural gas - Industrial for non electricity components, and Natural gas - electrical generation for the remaining)?
- Where LFG is input to a shared natural gas pipeline and the end-use of the LFG cannot be directly attributed, is it appropriate to assume its destruction and that the applicable emission factors should be the most conservative for all possible end uses?

## ***Summary of Policy Issues***

The following policy issues may be considered as part of the technical and stakeholder review processes:

- Is the treatment of the uncontrolled flare baseline appropriate in the context of promoting process improvement?
- When destruction efficiencies fit with the assumptions underlying the Environment Canada's emission factors, is it appropriate to omit the destruction efficiencies from the calculations?
- As in the other protocols, is it appropriate to exclude electricity usage on site from the calculations as these emissions are covered elsewhere in the system?