

LANDFILL METHANE RECOVERY AND DESTRUCTION VERSION 1.0



Project type description

When organic waste is disposed in landfills it produces methane, a powerful greenhouse gas (GHG). Instead of allowing the methane to be released to the atmosphere, this project type involves installing and operating a system to actively recover and destroy landfill gas in an eligible destruction device. This reduces GHG emissions as it converts the methane in landfill gas into carbon dioxide, which has a lower warming impact on the climate.

Eligibility

A project may be eligible to register in Canada's GHG Offset Credit System if the following conditions are met:

- › **Location:** The project can be located in any province or territory except Alberta and Quebec, and the registration of a project located in British Columbia is only possible until February 28, 2023.
- › **Additionality:** GHG emission reductions generated by the project must not already be incentivized by carbon pricing and must not occur as a result of federal, provincial or territorial regulations, municipal by-laws, operating permits or any other legally binding mandates that may control the release of landfill gas, either as a safety precaution or to minimize odour. If operating permits are updated as a result of voluntarily carrying out the offset project, additionality will not be affected.
- › **Baseline conditions:** Landfill gas must not be actively recovered from within the project site (composed of one or more landfill cells) and subsequently destroyed in any manner prior to the project start date.
- › **Eligible project activities:** Landfill gas is actively recovered from one or more landfill cells and is destroyed in an eligible destruction device.
 - **Eligible destruction devices:** Open and enclosed flares as well as the following devices for energy or heat generation: boilers, turbines, and internal combustion engines. Stations for the direct injection of upgraded landfill gas into a natural gas network, or for the compression or liquefaction of upgraded landfill gas prior to its transport and injection into a natural gas network are also eligible.
- › **Project start date:** The first day that eligible project activities occur must be on or after January 1, 2017.

While projects can use the recovered landfill gas to generate heat or energy, GHG emission reductions due to the displacement of fossil fuels are not eligible to generate federal offset credits.

Quantification

GHG emission reductions generated by the project are based on the methane emissions that would have been released to atmosphere in the absence of the project (baseline scenario) minus the emissions associated with the use of fossil fuels or electricity and the uncombusted methane from an eligible destruction device due to the implementation of the project (project scenario).

Monitoring and measurement

Methane destroyed in the project scenario must be directly measured. Data must be collected using measuring devices, such as flow meters and methane analyzers, which must be operated and calibrated as per applicable requirements and standards.

Reporting and verification

To be issued offset credits, a proponent must prepare a project report for each reporting period. The first reporting period is one year, and subsequent reporting periods can be up to three years. Project reports must be verified by an accredited verification body.

Other key requirements

- › GHG emission reductions must be unique, i.e. credits cannot be issued for the same reductions under another offset system, program or other GHG reduction mechanism, including Government of Canada's *Clean Fuel Regulations*.
- › A proponent must have exclusive entitlement to claim the credits issued for the GHG emission reductions generated by the project.
- › Projects can be aggregated, but they must be located in the same province or territory.
- › 3% of offset credits generated by a project are deposited into the environmental integrity account.
- › A project can generate credits for 10 years; however, credit issuance stops if the GHG emission reductions become required by law. There is a potential to renew the crediting period twice.

Disclaimer

The information in this document is intended for communication purposes only and does not replace the requirements set out in the [Landfill Methane Recovery and Destruction](#) protocol or the [Canadian Greenhouse Gas Offset Credit System Regulations](#). Please refer to these documents for a complete list of rules and requirements. In the event of any conflict or difference between this protocol overview and any legal requirements, the latter prevail.

Cat. No.: En4-461/1-2023E-PDF
ISBN: 978-0-660-46561-6
EC22043

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