Suzanne Orr MLA
Minister for Aboriginal and Torres Strait Islander Affairs
Minister for Climate Change, Environment, Energy and Water
Minister for Disability, Carers and Community Services
Minister for Seniors and Veterans

Member for Yerrabi

RESPONSE TO QUESTION ON NOTICE
Questions on Notice Paper No 1
6 December 2024
Question No. 74

MS CLAY MLA - To ask the Minister for Climate Change, Environment, Energy and Water:

(1) How many tonnes of carbon dioxide equivalent emissions were emitted from landfill each year for the past ten years.

(2) How many tonnes are estimated to have (a) been captured for energy, (b) been captured for flaring and (c) not been captured.

MINISTER ORR MLA - The answer to the Member's question is as follows:

(1) The following table presents emissions from ACT landfills in the past ten years.

Year	Emissions (tonnes CO2-e)
2014-15	114,043
2015-16	113,673
2016-17	95,045
2017-18	65,184
2018-19	84,806
2019-20	118,064
2020-21	69,031
2021-22	81,130
2022-23	79,386
2023-24	102,081

(2) The following table presents the available data for total landfill methane captured for combustion to produce energy and flaring (measured in standard cubic meter – SCM) in the past ten years.

Year	Total methane captured (combusted/flared) (SCM)
2014-15	6,724,384
2015-16	6,857,786
2016-17	8,196,443
2017-18	10,308,211
2018-19	9,456,035
2019-20	7,718,161
2020-21	12,113,782
2021-22	14,236,960
2022-23	13,930,842
2023-24	17,913,396

a) A total of 13,765,555 cubic meters of methane was combusted for *energy* in 2023-24. Data is not available for previous years.

b) A total of 4,147,841 cubic meters of methane was *flared* in 2023-24. Data is not available for previous years.

c) The ACT Greenhouse Gas Inventory uses the National Greenhouse and Energy Reporting (NGER) solid waste calculator to estimate landfill emissions. The calculator sets a theoretical limit on landfill methane that can be captured, which is 75%. I.e. it assumes it is not practically possible to capture 100% of landfill methane. The calculator does not estimate the quantity of methane not captured. However, with the latest expansion of landfill gas extraction equipment, the Mugga Lane landfill site has now reached the 75% theoretical limit. This implies that the total volume of methane generated for 2023-24 could be estimated as around 24,000,000 m3 and that around an estimated 6,000,000 m3 is not being captured, and cannot be captured.

Approved for circulation to the Member and incorporation into Hansard.

Suzanne Orr MLA
Minister for Climate Change, Environment, Energy and Water **Date:** 23/12/24

This response required 3hrs 0mins to complete, at an approximate cost of $283.51.