

Thank you for the opportunity to provide feedback on the LCFS pathways. If you have any questions or would like to discuss further, please do not hesitate to reach out at egarland@rmi.org.

Biomethane from Anaerobic Digestion of Organic Waste

The anaerobic digestion of organic waste pathway does not fully reflect the emissions benefits of diverting organics from the landfill.

Users can choose between a default collection efficiency or a site-specific value to quantify avoided landfill emissions. We strongly support the option to choose a site-specific collection efficiency, based on direct measurement. However, for the default collection efficiency option, research suggests the current 75% assumption is too high. Gas collection efficiency can vary widely site to site, due to design and operational factors. CARB/CalRecycle's research with Cal Poly observed real-world collection efficiencies at landfills from as low as 23% to above 99%.¹ The White House has set a goal to achieve a 70% methane capture rate across landfills, which it estimates would represent a "12% increase from the current rate."²

Furthermore, EPA's recent supplemental proposal to the Greenhouse Gas Reporting Program (GHGRP) acknowledges that current landfill gas collection efficiency assumptions do not fully reflect the methane that escapes due to cover system leaks, poorly operating gas collection systems, or inefficient flares. To remedy this, EPA proposes requiring reporters to either lower their collection efficiency by 10% or conduct surface emissions monitoring and add exceedances (methane >500 ppm) to their reported emissions.³

We recommend CARB lower the default collection efficiency for landfill gas across LCFS pathways to align with the latest research and EPA's proposed supplemental rule (e.g., at least a 10% reduction from the 75% default). At the same time, CARB should continue its research using advanced monitoring technologies to better understand real-world collection efficiency and develop more accurate model assumptions over time.

¹ California Polytechnic State University (2020). *Estimation and Comparison of Methane, Nitrous Oxide, and Trace Volatile Organic Compound Emissions and Gas Collection System Efficiencies in California Landfills*. https://ww2.arb.ca.gov/sites/default/files/2020-12/CalPoly_LFG_Study_03-30-20.pdf

² The White House (2022). Delivering the U.S. Methane Emissions Reduction Plan. <https://www.whitehouse.gov/wp-content/uploads/2022/11/US-Methane-Emissions-Reduction-Action-Plan-Update.pdf>

³ US Environmental Protection Agency (May 2023). Revisions and Confidentiality Determinations for Data Elements Under the Greenhouse Gas Reporting Rule. SNPRM. <https://www.govinfo.gov/content/pkg/FR-2023-05-22/pdf/2023-10047.pdf>