

Alt-FEMP Executive Summary

Company	Program start	Program end	# of sites
Enhance Energy Inc.	July 25, 2023	December 31, 2024	15

Once an alternative fugitive emissions management program is approved, AER staff draft this executive summary. This is a summary only, published to help interested stakeholders understand what has been approved. These summaries are found on our website, www.aer.ca > Protecting What Matters > Holding Industry Accountable > Industry Performance > Methane Performance > [Alternative Fugitive Emission Management Program Approvals](#). For additional information on these approvals, contact methane.reduction@aer.ca.

Summary

Enhance Energy Inc. (Enhance) is piloting an alternative fugitive emissions management program (alt-FEMP) across a selection of its asset base. The proposed alt-FEMP uses a metal oxide-continuous measurements system (MOCMS) that can detect emission leaks on timescales of hours to days. Leaks may go undetected for several months or up to a year using traditional “snapshot” measurement methods using optical gas imaging (OGI) cameras. Snapshot methods include traditional handheld surveys with OGI cameras and new mobile screening using aerial or satellite imaging. Research shows that emissions from oil and gas facilities are temporally highly variable and poorly characterized by snapshot measurements. Continuous measurement systems, therefore, have significant potential to accurately characterize emissions patterns at each facility and detect leaks immediately, reducing time-integrated fugitive emissions to near zero.

The 2023 alt-FEMP is as a continuation of the 2021 pilot alt-FEMP that was submitted in February 2021 and approved by the AER in April 2021. The alt-FEMP scope will cover 15 Enhance sites in the Red Deer region, already regulated under section 8 of *Directive 060*. MOCMS will be deployed at each of these sites and measure continuously for CH₄, NO₂, CO, and VOCs. MOCMS devices will be deployed at distances of 10 to 100 metres from target infrastructures to achieve similar detection limits as OGI cameras.

For this alt-FEMP, close-range follow-up inspections will be scheduled as soon as a defined detection event is confirmed. For most leaks (especially large leaks), we estimate that the time from leak onset to detection will be less than one day.