

Alt-FEMP Executive Summary

Company	Program start	Program end	# of sites
Bonavista Energy Corporation	May 1, 2021	March 31, 2023	700

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

Bonavista Energy Corporation is a western Canadian upstream oil and gas producer that owns and operates 894 active facilities on 694 sites in Alberta. Bonavista will implement an alternative fugitive emission management program (alt-FEMP) in the Edmonton and Fox Creek regions of Alberta using aerial and truck-mounted methane sensors. Bonavista is also a participating producer in the Sundre Petroleum Operators Group (SPOG) collaborative alt-FEMP project, which has enabled the company to become familiar with select alternative technologies. The proposed alt-FEMP pilot will cover two compliance years.

The program design for this proposal involves deploying two aerial-based surveys and one truck-based survey throughout the two-year pilot. Fugitive emission repairs will occur at the prescribed percentage of highest-emitting sites. A representative control region encompassing 40 facilities was omitted from the scope of the modelling. Here, optical gas imaging (OGI) camera surveys in accordance with *Directive 060* will occur, providing a control to which to compare alternative program performance.

A third-party analytics company conducted methane emissions modelling to support this objective. A proprietary methane emissions and repair simulation model was used to estimate methane reductions that result from implementing numerous leak detection and repair (LDAR) programs. The model incorporated attributes of area and company-specific information regarding methane leaks and repair practices.

The modelling conducted for this proposed indicates that the selected alternative program is estimated to achieve similar emissions reductions to the *Directive 060* default approach. The program is estimated to reduce fugitive emissions by 2.4% more than the regulatory scenario.

Field operators are trained to conduct regular audio, visual, and olfactory testing while on site and take necessary corrective and reporting actions if an abnormality is detected. Bonavista will also continue to consider and trial new alternative technologies to assess their suitability for an alt-FEMP as needed. As a result, additional emissions detection methods may be implemented outside the scope of this proposal.

Throughout the pilot program, Bonavista will ensure appropriate data and information are collected and analyzed to support a comprehensive evaluation of the overall alternative program performance at the end of each year. This will be done by analyzing measurement data on a reoccurring basis as it is collected, comparing results with modelled estimates, and generating key performance indicators that will allow for the assessment of emission reduction progress and program performance.