Fugitive Equipment Leak Emission Factors with Advanced Monitoring and Detection Methods

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The main objectives of the research program are as follows:

1. To demonstrate the quality and validity of the technology with measurement-and-model based methane leak rate data from components on oil & gas sites equipment.
2. To generate time-bound, real-time operation related emission factors in comparison with the EPA/EC O&G industrial methane emission factors for the emitting equipment components in the seven selected oil and gas production sites of Bonavista Energy Corporation in Alberta, Canada.
3. To develop a robust workflow and protocols for future larger scale methane emission studies to cover more representative oil and gas facilities and equipment/component diversities.
4. Ultimately, to establish an alternative solution for O&G Industry with robust data-driven emission monitoring so operators could source

insights faster checking their emission dashboard, a win win situation when the Industry could opt for use of smart asset management tool and the EPA/EC regulators could offer incentives encouraging methane emission-footprint reduction to the oil & gas sector in Canada with informed policy and decision making for potential GHGI mitigation opportunities.

Final Report (Part 1)