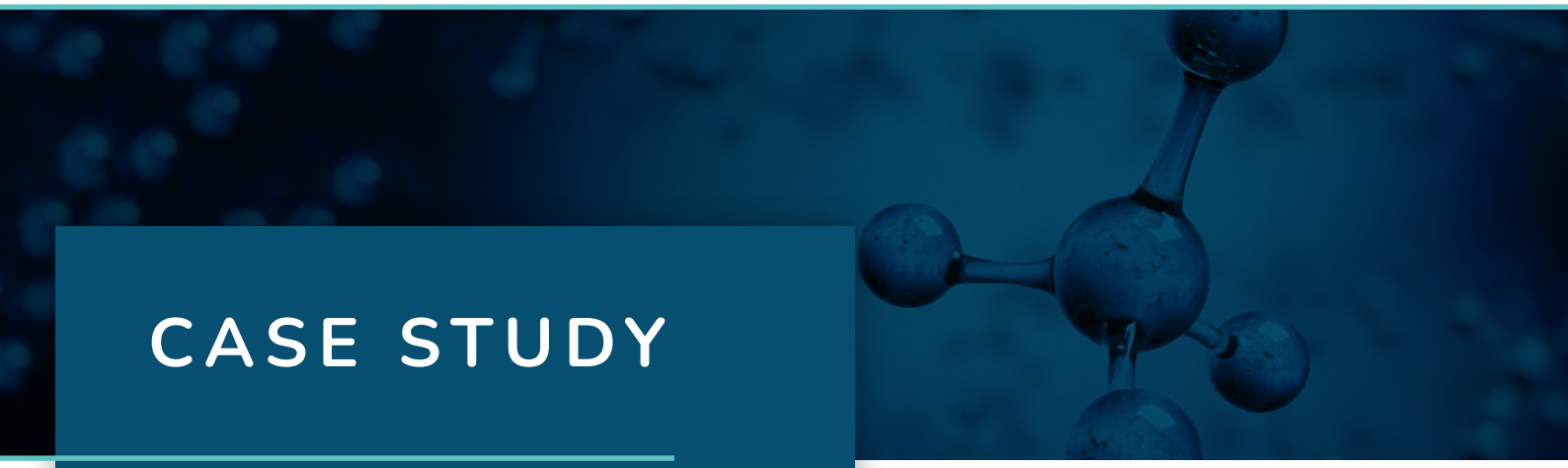
METHANE GUIDING PRINCIPLES

Ressources naturelles Canada | Natural Resources Canada

Canada



CASE STUDY

# Western Canada: addressing infrastructure barriers

Canada has set an ambitious target: at least 75% reduction in oil and gas sector methane emissions from 2012 to 2030. To accelerate methane abatement in line with this goal, Canada is advancing policy measures and regulatory requirements for methane emissions reductions in the oil and gas sector. This case study presents one of these measures - Natural Resource Canada's Emissions Reduction Fund - that supports investments in green technologies and infrastructure to reduce methane emissions from existing and already-scheduled oil production.

## Context

Canada recognizes that methane abatement is a key component of a net-zero future. In 2016, Canada committed to reduce 40-45% of methane emissions from the oil and gas sector by 2025 (from 2012 levels). In 2018, Canada published national-level oil and gas regulations targeting methane emissions reductions. Requirements regarding improved maintenance practices came into force in January 2020, meanwhile requirements to constrain venting will come into force in 2023. A number of sub-national regulatory measures are also in place. Furthermore, as part of its endorsement of the Global Methane Pledge, Canada set an ambitious target to achieve at least a 75% reduction in oil and gas sector methane emissions relative to 2012 levels by 2030.

### Infrastructure investments to reduce methane emissions

To accelerate emissions reductions in line with its climate commitments, Canada is advancing policy measures alongside regulatory requirements for methane emissions reductions in the oil and gas sector. Natural Resource Canada's **Emissions Reduction Fund (ERF) Onshore Program** is a measure that is helping companies achieve significant methane abatement in Western Canada.


The ERF was initially created during the COVID-19 pandemic to support sector competitiveness during a period of economic recovery, while simultaneously assisting oil and gas firms in reducing GHG emissions, with a focus on methane. The ERF's Onshore Program supports investments in green technologies and infrastructure that eliminate methane emissions from existing and already-scheduled oil production.

In Canada and globally, there are regions of oil production where insufficient infrastructure exists to conserve, gather and process the associated methane-rich natural gas. The ERF Onshore Program is building gas gathering and gas processing infrastructure to support gas conservation. The program targets the elimination of sources of methane emissions from **intentional routine venting and flaring**.

Early results from the 92 projects currently funded across Western Canada indicate methane emission reductions of approximately 4 Mt CO2e in the first twelve months following project completion, or more that 26 Mt CO2e over a period of 10 years (IPCC Fifth Assessment Report 100-year Global Warming Potentials is used by the ERF, GWP for methane is 28). Applications for additional projects under the third and final intake period are currently under review and will bring forward additional reductions.

### Demonstrated cost-effectiveness

The ERF Onshore Program is demonstrating that investing in gas gathering and conservation infrastructure to reduce methane emissions can be very cost effective, as projects have a very low cost per abatated tonne as compared to other decarbonization pathways. Based on present results, and using a 10-year amortization period, projects represent an average cost of less than $9 per tonne of CO2e reduced. Industry partners have been very supportive:

> *Steel Reef is proud to partner with Natural Resources Canada and our customers to invest in essential infrastructure that advances our country's commitment to achieving net-zero emissions by 2050. With the support of the Emissions Reduction Fund, Steel Reef is deploying infrastructure to help decarbonize Canada's energy sector. Together, by utilizing Steel Reef's expertise in flare gas capture, we are preventing emissions from being released into the atmosphere, while creating jobs and heating homes in Saskatchewan.*
>
> Austin Voss, Vice President & Chief Operating Officer, Steel Reef Infrastructure Corporation

Steel Reef is taking advantage of funding support provided by the ERF to invest in gas gathering infrastructure. The company installed new, and in some cases reactivated existing infrastructure, including 59km of natural gas pipeline to connect seventeen upstream oil facilities to eight different Steel Reef gas plants.

### Data-driven results

Natural Resource Canada reports on GHG reductions achieved by the program on an annual basis. Therefore, it requires companies to install continuous metering to accurately measure and report the gas volumes that will be conserved through ERF-funded projects for a total of five years. Thus, ERF-funded companies can demonstrate how much methane they are abating. As a result, these companies are able to improve investor confidence and may be able to access premium energy markets that demand enhanced environmental, social governance (ESG) performance.

To learn more about the policies and measures Canada is using to drive down methane emissions, see the IEA's Methane Tracker and Policies Database. In Regulatory development you can find further information on policy and regulatory options for methane mitigation, such as the World Bank's Global Regulatory Review on Flaring and Venting or EDF's paper Policy instrument options for addressing methane emissions from the oil and gas supply chain.

## Find out more

- Financing methane mitigation
- NRCan page on emissions reduction fund
- Emissions Reduction Fund