



HOUSE OF COMMONS
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CANADA

A STUDY OF METHANE REDUCTION PLANS: EMISSIONS REDUCTION FUND ONSHORE PROGRAM REVIEW

Report of the Standing Committee on Natural Resources

John Aldag, Chair

**JUNE 2022
44th PARLIAMENT, 1st SESSION**

Published under the authority of the Speaker of the House of Commons

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Chair**

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NOTICE TO READER

Reports from committees presented to the House of Commons

Presenting a report to the House is the way a committee makes public its findings and recommendations on a particular topic. Substantive reports on a subject-matter study usually contain a synopsis of the testimony heard, the recommendations made by the committee, as well as the reasons for those recommendations.

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THE STANDING COMMITTEE ON NATURAL RESOURCES

has the honour to present its

FIFTH REPORT

Pursuant to its mandate under Standing Order 108(2), the committee has studied the Emissions Reduction Fund - Onshore Program and has agreed to report the following:

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SUMMARY

Canada has made ambitious commitments to cut its emissions of methane, a greenhouse gas that contributes to even more rapid warming than carbon dioxide. The oil and gas sector is the largest source of these emissions in Canada, and as such it will play an important role in meeting the country's methane commitments. Early in the COVID-19 pandemic, the Government of Canada announced a program, the Emissions Reduction Fund, that was intended to help the sector cut methane emissions. In the fall of 2021, the Commissioner of the Environment and Sustainable Development released an audit of the Onshore Program of the Emissions Reduction Fund that identified some shortcomings in the program's design.

The House of Commons Standing Committee on Natural Resources conducted a study following on the commissioner's audit and identified additional steps that the Government of Canada can take to strengthen programs that seek to reduce methane emissions. Specifically, this report recommends that the federal government release more information about the Onshore Program of the Emissions Reduction Fund, phase out programs for the oil and gas sector that subsidize compliance with existing or pending regulations, and work with industry and other levels of government to improve the monitoring of emissions in the oil and gas sector.

LIST OF RECOMMENDATIONS

As a result of their deliberations committees may make recommendations which they include in their reports for the consideration of the House of Commons or the Government. Recommendations related to this study are listed below.

Recommendation 1

That the Government of Canada publish additional data about the Emissions Reduction Fund Onshore Program, including:

- **identifying what portion of emissions reductions achieved in the first two intakes of the program exceeded what would otherwise been required by regulations; and**
- **releasing more detailed information about the projects, costs and emissions reductions achieved by the program. 20**

Recommendation 2

That, as the Government of Canada works to identify and eliminate “inefficient fossil fuel subsidies” by 2023, it should phase out programs for the oil and gas sector that subsidize compliance with existing or pending regulations. 21

Recommendation 3

That the Government of Canada work with provinces and territories, and industry to improve the monitoring of emissions in the oil and gas sector, including by:

- **expanding requirements that apply to the metering of intentional emissions; and**
- **mandating additional efforts to survey and fix unintentional emissions. 23**



A STUDY OF METHANE REDUCTION PLANS: EMISSIONS REDUCTION FUND ONSHORE PROGRAM REVIEW

INTRODUCTION

On 31 January and 2 February 2022, the House of Commons Standing Committee on Natural Resources (the Committee) studied the Onshore Program of the Emissions Reduction Fund (ERF), in accordance with the following [motion](#):

That, pursuant to Standing Order 108(2), before February 15th, 2022, the committee undertake a two-meeting study concerning the development and implementation of the Emissions Reduction Fund—Onshore Program, with particular focus on the method of accounting for greenhouse gases; that the committee invite the Minister of Natural Resources, the Commissioner of the Environment and Sustainable Development, experts and stakeholders; that the committee make recommendations on the future of the program; and that the committee report its findings to the House.

During its study, the Committee heard testimony from various witnesses, including the Commissioner of the Environment and Sustainable Development and the Minister of Natural Resources. The Committee thanks all the witnesses for their contributions and is pleased to present its final report.

Methane Emissions

This study focused on a Government of Canada program, the ERF Onshore Program, that aims to reduce methane emissions in the oil and gas sector.¹ Methane is a potent greenhouse gas (GHG).² It persists in the atmosphere for less time than carbon dioxide

1 In this report, the term “oil and gas sector” has the same meaning as in Canada’s National Inventory Report. In that document, the oil and gas sector includes the extraction, distribution, refining and upgrading of oil and gas products.

2 Methane is sometimes represented by its chemical symbol, CH₄.



(CO₂) but absorbs much more heat. This means that a given quantity of methane will contribute to more global warming than an equal quantity of CO₂.³

The oil and gas sector is the single-largest source of methane emissions in Canada.⁴ Oil and gas operations emit methane in several ways:⁵

- Through unintentional leaks. These leaks, sometimes called “fugitive emissions,”⁶ occur at different stages of oil and gas operations. Wellheads, equipment, pipelines and storage facilities can all produce these emissions.
- Through “venting.” Venting is the controlled release of unburned gas directly into the atmosphere. Operators vent gases at various stages, including when completing oil or gas wells and during well, equipment, or pipeline maintenance.
- Through burning, or “flaring,” of excess natural gas. Flaring turns most of the natural gas into other GHGs but still emits small amounts of methane.
- Through other kinds of fuel use, typically where natural gas is used to generate heat or electricity.

Methane emissions in Canada’s oil and gas sector fell by 4% between 1990 and 2020. However, data from 2020 do not necessarily represent the overall trend in oil and gas sector emissions. For instance, methane emissions rose by 42% between 1990 and 2019, before dropping in 2020. Canada’s oil and gas production also increased from 1990 to 2019 before falling in 2020, as described later in this report. As [Environment and Climate Change Canada](#) (ECCC) notes, 2020 coincided with the first year of the COVID-19 pandemic, “which strongly affected a wide range of economic sectors, including the energy and transport sectors.”

Methane emissions represent a declining, but significant, share of the sector’s total GHG emissions. As of 2020, methane accounted for approximately 20% of the sector’s

3 The Government of Canada uses a methodology that assumes methane will cause 25 times more warming than an equal quantity of carbon dioxide (CO₂) over 100 years. However, as stated by [Tom Green](#) from the David Suzuki Foundation, methane causes up to 86 times more warming than CO₂ over 20 years, and it is on this shorter time scale that it will be most important to address the effects of greenhouse gas emissions.

4 Confirmed by correspondence with Natural Resources Canada (NRCan).

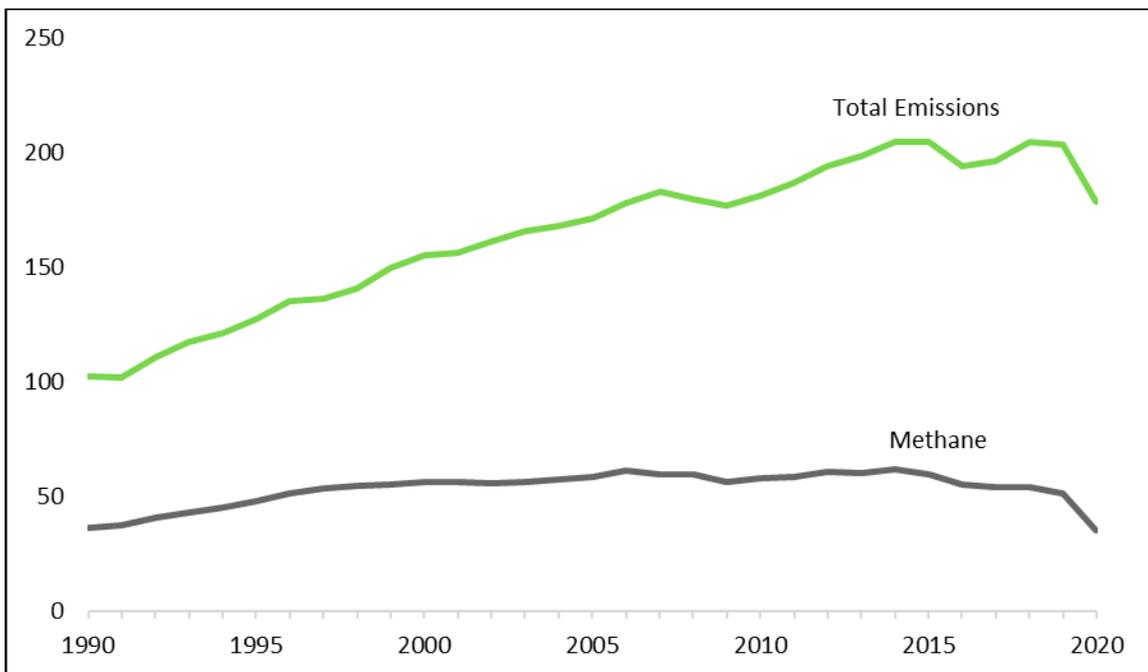
5 Canadian Association of Petroleum Producers, [Methane Emissions](#).

6 The term “fugitive emissions” sometimes also refers to emissions from flaring and venting.

emissions, down from 35% in 1990.⁷ Venting and leaks accounted for most of these methane emissions.

Figure 1 shows methane and GHG emissions in the oil and gas sector over time. Figure 2 shows a breakdown of the sector’s methane emissions in 2020. Note that these figures include the whole oil and gas sector, while the ERF Onshore Program only applies to the production and processing of conventional oil and gas. The program does not apply to “unconventional” operations like the oil sands.

Figure 1—Greenhouse Gas Emissions in Canada’s Oil and Gas Sector, 1990–2020 (Mt CO₂e)



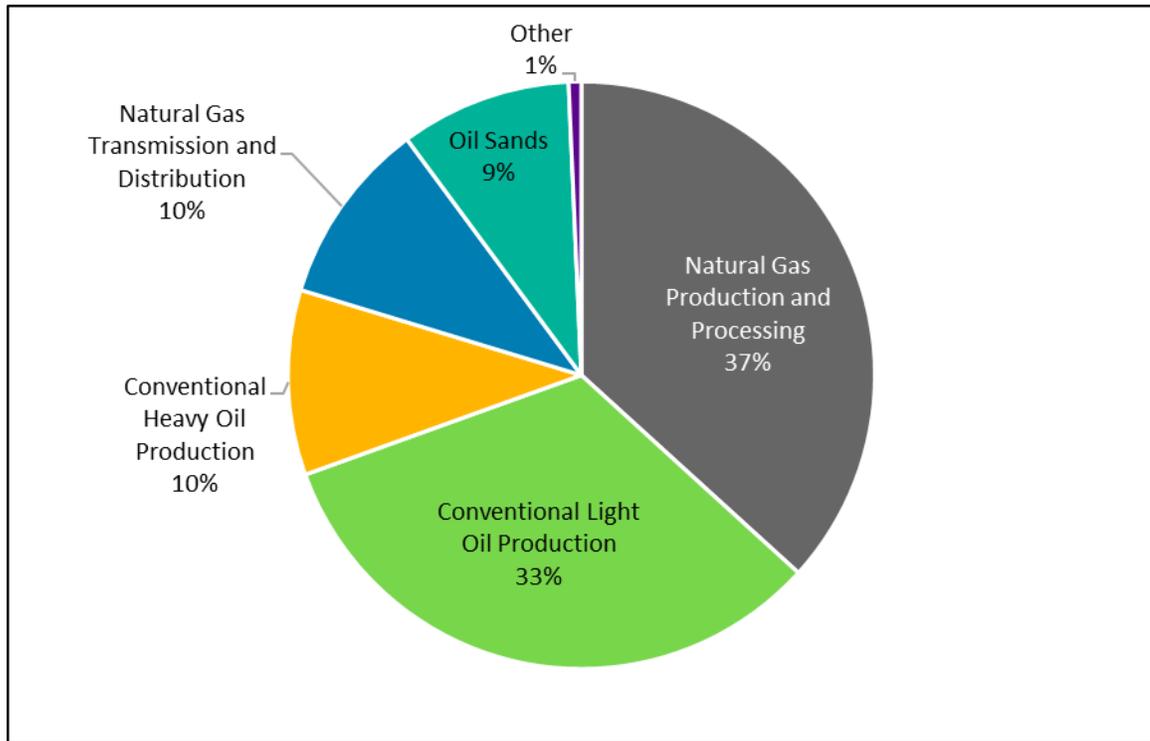
Note: “Mt CO₂e” stands for megatonnes of carbon dioxide equivalent. CO₂e is a measure that expresses the warming potential of different greenhouse gases in terms of carbon dioxide.

Source: Figure prepared by the Committee using data obtained from Environment and Climate Change Canada.

⁷ Calculations based on data obtained from Environment and Climate Change Canada (ECCC).



Figure 2—Methane Emissions in Canada’s Oil and Gas Sector, 2020

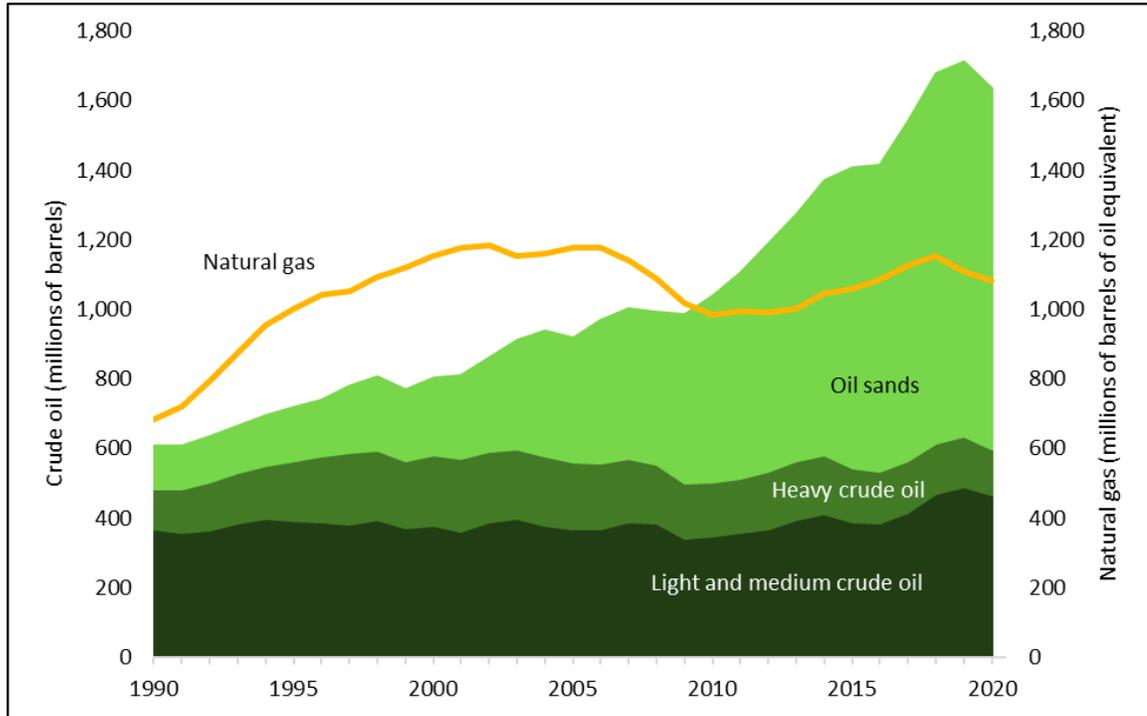


Note: “Other” includes the following activities: arctic and offshore oil production, petroleum refining, and oil transmission.

Source: Figure prepared by the Committee using data obtained from Environment and Climate Change Canada.

During the period from 1990 to 2020, crude oil production rose by roughly 169% while natural gas production increased by approximately 58%. Figure 3 shows these increases. The figure also shows that oil and gas production declined between 2019 and 2020, mainly because of the effects of the COVID-19 pandemic.

Figure 3—Oil and Gas Production in Canada, 1990 to 2020

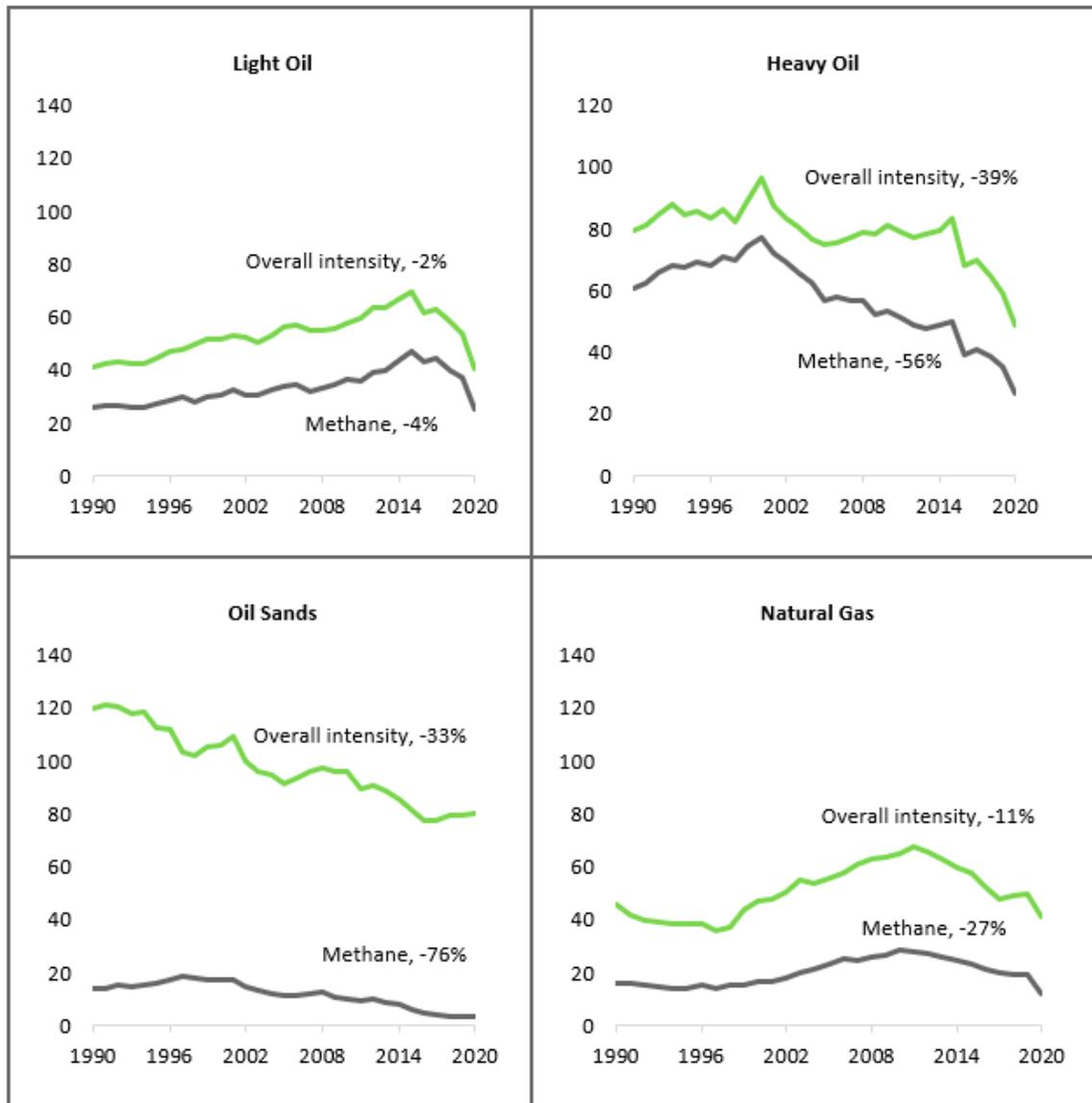


Source: Figure prepared by the Committee using data obtained from Environment and Climate Change Canada; Statistics Canada, *Supply and disposition of crude oil and equivalent*, Table 25-10-0063-01, Database, consulted 25 May 2022; and Statistics Canada, *Crude oil and equivalent, monthly supply and disposition (x 1,000)*, Table 25-10-0014-01, Database, consulted 25 May 2022.

At the same time, per barrel methane emissions in the sector have been evolving. Figure 4 shows this evolution. It indicates the methane emissions produced per barrel – or equivalent – of oil and gas, along with the overall emissions intensity of each product.



Figure 4—Emissions Intensity of Selected Oil and Gas Products in Canada, 1990 to 2020 (kg CO₂e/barrel of oil equivalent)



Notes: The emissions intensity for light oil includes arctic and offshore oil.

The overall intensity of Canadian oil production has increased slightly mainly because of rising production in the oil sands.

Source: Figure prepared by the Committee using data obtained from Environment and Climate Change Canada.

The Federal Methane Regulations

The federal government's principal tool for reducing methane emissions from the oil and gas sector consists of the [Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds \(Upstream Oil and Gas Sector\)](#) (the federal methane regulations). The regulations, which are overseen by ECCC, set operating and maintenance standards for upstream oil and gas facilities. They are mainly intended to reduce emissions from venting and leaks.

The first version of the federal methane regulations came into force on 1 January 2020; they are intended to fulfil Canada's commitment to reduce methane emissions by 40–45% below 2012 levels by 2025. Stricter federal methane regulations will come into force on 1 January 2023. These updated regulations are intended to achieve a more ambitious target of reducing methane emissions by at least 75% below 2012 levels by 2030.⁸

In 2020, the provincial governments of Alberta, British Columbia and Saskatchewan signed equivalency agreements with the federal government to replace the current version of the federal methane regulations with their own regulations to achieve equivalent reductions. These agreements allow the provincial regulations to replace the federal regulations for up to five years.⁹

THE EMISSIONS REDUCTION FUND ONSHORE PROGRAM

The Program

The federal government launched the \$750 million ERF in October 2020 as part of [Canada's COVID-19 Economic Response Plan](#). As the [Hon. Jonathan Wilkinson, Minister of Natural Resources](#), explained:

In 2020, due to COVID, the oil and gas sector faced record-low prices that created significant financial strain and threatened tens of thousands of jobs. The Emissions Reduction Fund was designed as a targeted COVID emergency support program that had two key objectives: to maintain jobs for oil and gas workers in Canada at a time of record-low oil prices and to ensure that work continued on reducing methane emissions at a time when emissions reduction would not be high on the agenda of firms whose finances were being stretched.

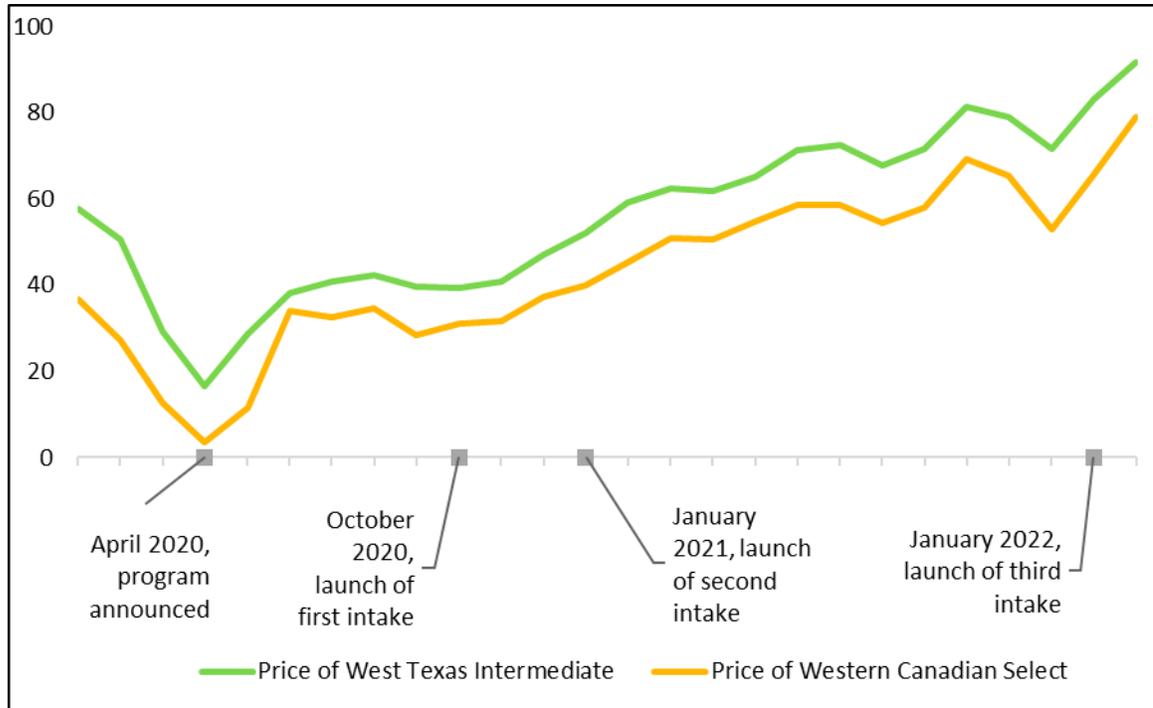
8 ECCC, "[Canada publishes progress report towards 2025 methane emissions reduction target and launches consultations on 2030 target](#)," News release, 21 December 2021.

9 ECCC, [Review of Canada's methane regulations for the upstream oil and gas sector](#), December 2021.



Oil prices have changed over the course of the program, as shown in Figure 5.

**Figure 5—Program Timeline and Benchmark Oil Prices,
January 2020 to February 2022 (US\$/barrel)**



Note: West Texas Intermediate is the main benchmark for crude oil in North America. Western Canadian Select is the main benchmark for Western Canadian crude oil.

Source: Figure prepared by the Committee using data obtained from Government of Alberta, [Oil Prices](#).

Managed by Natural Resources Canada (NRCan), the program is divided into two streams: an onshore program and an offshore program. As originally conceived, the [ERF Onshore Program](#) provides up to \$675 million in repayable or partly repayable interest-free loans to help land-based oil and gas companies¹⁰ with projects that reduce or eliminate the intentional venting of methane.

Design

The ERF Onshore Program had three intake periods for oil and gas companies to submit project proposals for funding. The first two intake periods had concluded at the time of

¹⁰ Land-based companies that extract and process conventional oil and gas were eligible to apply. “Unconventional” operators, including companies in Canada’s oil sands, were not eligible.

the study. NRCan made several changes to the program for the third intake period, which was open from 19 January 2022 to 31 March 2022.

For the first two intake periods, the program funded projects that would eliminate or reduce routine venting. The projects designed to reduce routine venting could:¹¹

- incinerate or flare natural gas that was previously intentionally vented; or
- lower the volume of natural gas intentionally vented from pneumatic devices.

For the third intake period, the program funded only projects that would fully eliminate GHG emissions from specific sources such as wellheads, storage tanks and pneumatic devices. For example, projects could:¹²

- conserve natural gas that had been vented and instead use the gas for fuel on site, or gather and process for use off site;
- develop new, or upgrade existing infrastructure that gathers and/or processes natural gas to conserve it for use off site; and/or
- install new infrastructure to eliminate the use and venting of compressed natural gas from pneumatic devices.

Outcomes

According to the most recent data from [NRCan](#), during the first two intake periods, 28 companies representing 93 projects in Alberta, British Columbia, Manitoba and Saskatchewan received \$143 million from the ERF Onshore Program. The department stated that these projects cut 4.7 megatonnes (Mt) of carbon dioxide equivalent (CO₂e) in the first year of the program. The [Minister of Natural Resources](#) said this reduction was “like taking a million cars off the road.”

Of these emissions reductions, the [department](#) reported that 98% came from projects that fully eliminate—rather than reduce—methane emissions from targeted sources. However, as described in the sections below, some witnesses, including the

11 NRCan, [Applicant's Guide: Second Application Intake Period, Emissions Reduction Fund](#).

12 NRCan, [Applicant's Guide: Third Application Intake Period – Relaunch, Emissions Reduction Fund](#).



Commissioner of the Environment and Sustainable Development, questioned these figures.

Case Study: A Project Funded by the Emissions Reduction Fund Onshore Program

The Committee heard testimony from one organization that received funds from the ERF Onshore Program.

[Patrick Kitchin](#), the Director of Regulatory and Environmental Sustainability at Whitecap Resources Inc., explained that his company had recently acquired Highrock Resources, which received \$1.4 million for an emissions elimination project in the second intake of the ERF Onshore Program. The project took place in southeast Saskatchewan.

According to his testimony, this project:

- constructed a 10 km pipeline to transport gas that had previously been flared to instead be processed and sold;
- involved 19 service companies across its various stages, from engineering to construction;
- would eliminate an estimated 36,500 tonnes of CO₂e within its first 12 months;
- surpassed the minimum requirements of Saskatchewan's methane regulations; and
- would not have been undertaken without the funds from the ERF Onshore Program.

Source: Table created by the Committee using testimony from House of Commons Standing Committee on Natural Resources, [Evidence](#), 2 February 2022, 1645 (Patrick Kitchin, Director of Regulatory and Environmental Sustainability, Whitecap Resources Inc.).

Report of the Commissioner of the Environment and Sustainable Development

The Commissioner of the Environment and Sustainable Development (CESD or the Commissioner) audited the first intake of the ERF Onshore Program and published his findings in [Report 4—Emissions Reduction Fund—Natural Resources Canada](#). In his

testimony before the Committee, [Jerry V. DeMarco](#), the CESD, noted that the audit focused on “whether Natural Resources Canada designed and implemented the onshore program to achieve value for money and to ensure that the anticipated reductions of greenhouse gas emissions after 2023 would be credible and sustainable.” Overall, the [CESD](#) said, the audit found that the department did not design the program to achieve these ends.

The CESD outlined some key findings behind the report’s conclusions, as described in the sections below. [He](#) noted that of the six recommendations made in his report, the department had agreed with four and partially agreed with two.



Mandate of the Commissioner of the Environment and Sustainable Development and Information about Performance Audits

On behalf of the Auditor General, the Commissioner of the Environment and Sustainable Development provides parliamentarians with independent analysis and recommendations on the federal government's efforts to protect the environment and foster sustainable development.

The Commissioner conducts performance audits, and is responsible for:

- monitoring the sustainable development strategies of federal departments;
- overseeing the environmental petitions process; and
- auditing the federal government's management of environmental and sustainable development issues.

Performance audits answer the following questions:

- Are programs being run with due regard for economy, efficiency and environmental impact?
- Does the government have the means in place to measure the effectiveness of its programs?

Performance audits do not question the merits of government policies. Rather, they examine the government's management practices, controls, and reporting systems based on its own public administration policies and on best practices.

Source: Office of the Auditor General of Canada (OAG), "[The Commissioner of the Environment and Sustainable Development](#)," Who We Are; and OAG, "[1. Introducing Performance Audits](#)," What to Expect—An Auditee's Guide to the Performance Audit Process.

Greenhouse Gas Accounting Principles

In his report, the Commissioner outlined certain concepts and accounting principles that, in his view, NRCan failed to apply when designing the ERF Onshore Program and that led the department to overestimate what the program could achieve. The Commissioner's testimony to the Committee focused on three of these principles: additionality, completeness and using baseline scenarios to calculate emissions reductions.

Additionality means measuring only the effects that can be directly attributed to an intervention and excluding effects that are caused by other factors. The [Commissioner](#) argued that NRCan had credited the ERF Onshore Program for some emissions reductions that would have taken place even without the program. Specifically, he estimated that more than half the emissions reductions attributed to the ERF Onshore Program were already accounted for under the federal methane regulations. In short, the [Commissioner](#) said, “[i]f one funds the same activities that were going to happen anyway with the methane regulations, one cannot say that those emissions reductions were attributable to the program.”

The [Commissioner](#) also asserted that NRCan failed to apply the principle of completeness when measuring emissions. Completeness refers to measuring all GHG sources and sinks associated with an initiative. In the [Commissioner](#)'s words, applying this principle would mean looking at “the full picture, rather than...the equipment being installed at a given site. We wanted to see what the full effect of the fund was on, for example, continued production.”

Indeed, the [CESD](#) found that several projects supported by the ERF Onshore Program may have contributed to increased oil and gas production. Of the 40 projects that were funded in the program's first intake, 27 came from companies that indicated they intended to increase production if they received funding. The Commissioner told the Committee that emissions from these production increases might have offset the reductions achieved by the program, and that NRCan should have accounted for these emissions.

The [Minister of Natural Resources](#) disagreed with this finding, saying that the department defined the boundary conditions of the program more narrowly than the Commissioner. He reasoned that if “for example, there was another project miles away that was started during the course of the program, it was not counted” because the department “[was] focused on reducing emissions at the source.” In the [Minister](#)'s view, the divergence between the department's approach and the CESD's reflects “a legitimate difference of opinion.”

Furthermore, the [Commissioner](#) expressed concern that the department had not developed a baseline scenario to calculate emissions reductions that were specifically attributable to the ERF Onshore Program. [He](#) added that the department had responded to the audit's recommendations in a way that suggested that the department “did not seem to even understand the idea of baselining emissions reductions.”

To address these accounting issues, [Sylvie Marchand](#), a Director at the Office of the Auditor General, recommended that the department measure GHGs using the



international standard known as [ISO 14064](#), or standards based on it, to “to ensure the consistency, reproducibility and additionality of estimated emissions reductions.” However, the [Minister of Natural Resources](#) explained that the department had in fact used a related standard, the World Resources Institute’s [Greenhouse Gas Protocol](#), when developing the program.

Job Retention

As the [Minister](#) told the Committee, one of the key purposes of the ERF Onshore Program was to maintain jobs in the oil and gas sector at a time of record low oil prices. However, the [Commissioner](#) pointed out that the program did not list job retention as a condition for receiving funds, and that the department did not assess whether projects would maintain jobs. In his view, the lack of these criteria made it harder to assess the performance of the program.

Responding to these critiques, the [Minister of Natural Resources](#) emphasized that the program was “brought into place very rapidly in order to respond to what was an economic crisis in the sector.” [He](#) said that there was “no reasonable or credible way” to collect information about job retention “up front” but asserted that there was anecdotal evidence from various communities that the program had retained jobs. The [Minister](#) added that the department will require companies to report about job retention later and that those figures would be published when they are available.

Value for Money

The [Commissioner](#) found that the ERF Onshore Program was not designed to deliver value for money, that is, to use public funds in an optimal way. In [his](#) view, NRCan could not fully assess the program’s value for money because the department had not set targets for the cost of emission reductions or for job retention, and had no way of measuring whether these targets were being met. To ensure that emissions reduction projects are more cost effective, the CESD report recommended setting thresholds to assess whether projects delivered value for money.¹³

Furthermore, the [Commissioner](#) noted that the ERF Onshore Program had been developed at a time of historically low commodity prices, but that these prices had “rebounded sharply since the onset of this program.” Given that NRCan had developed

13 Office of the Auditor General of Canada (OAG), [Emissions Reduction Fund – Natural Resources Canada](#), Report 4 in the 2021 *Reports of the Commissioner of the Environment and Sustainable Development to the Parliament of Canada*, p. 28.

the program based on the existence of financial need in the sector, the [Commissioner](#) said there were now “questions” about whether the program was still relevant.

One witness echoed these questions. [Pierre-Olivier Pineau](#), Professor at HEC Montreal, pointed out that global oil prices had now reached heights “not seen since 2015,” and that oil production in Alberta was at an all-time high. “Clearly,” [he](#) said, “the oil industry is no longer struggling” and “we should stop helping people who don’t need assistance.”

In contrast, [Patrick Kitchin](#), speaking on behalf of Whitecap Resources Inc., claimed that the program remains relevant. He acknowledged that the oil and gas sector benefitted from a recovering economy and stronger commodity prices but emphasized that the ERF Onshore Program “can still provide a substantial benefit to Canadians by enabling even deeper emission reductions [than] would have been achieved otherwise.”

THE FUTURE OF THE PROGRAM

Changes to the Third Intake of the Program

On 19 January 2021, the government released its refocused [third application intake](#) of the ERF Onshore Program. The [Minister of Natural Resources](#) outlined the changes to the program, noting that the department had considered the CESD’s feedback. These changes included:

- requiring proposed projects to surpass the current methane regulations by fully eliminating the intentional venting or flaring of methane;¹⁴
- establishing a maximum cost per tonne for emissions reductions of \$250/tCO₂e;¹⁵
- requiring applicants to demonstrate that the project could not be implemented without the program’s funding;¹⁶ and

14 NRCan, [Applicant’s Guide: Third Application Intake Period – Relaunch, Emissions Reduction Fund](#), p. 4.

15 *Ibid.*, p. 22.

16 *Ibid.*, p. 9.



- requiring greater transparency on the amount of GHG emissions that were counted within the projects by having an ISO-certified contractor review and verify the program’s methodology.¹⁷

The Committee heard diverging testimony about these changes. Some witnesses welcomed the modifications to the program. The [International Institute for Sustainable Development](#) (IISD) said it was “happy” with several of the improvements to the program, including the requirements that projects must eliminate sources of venting and flaring, exceed regulatory requirements and demonstrate financial need. The [Pembina Institute](#) told the committee that because of the changes to the third intake, it would be appropriate for the ERF Onshore Program to continue “for the next year.” After that time, the Institute [said](#), the federal government should focus on strengthening its regulations.

However, some witnesses opposed the program, even in its modified form. [Pierre-Olivier Pineau](#) and [Environmental Defence Canada](#) agreed that the third intake for the ERF Onshore Program should be deferred. On this point, the [David Suzuki Foundation](#) acknowledged that deferring the program would be “complicated,” and instead emphasized the importance of strong regulations to reduce methane emissions.

Witnesses also offered different interpretations of how the revisions to the third intake would affect the uptake of the program. The [IISD](#) predicted that the more stringent requirements for the third intake period would lead to fewer applicants, and therefore reduce fewer emissions. In contrast, [Whitecap Resources](#) expected more companies to apply for funding because the third intake had a longer application period than the first two intakes. The company noted that it intends to apply to the third intake of the ERF Onshore Program to fund gas conservation projects.

While witnesses had different perspectives on the changes to the third intake period, one witness agreed with the Commissioner’s view that the government should improve how it reports emissions reductions from the ERF Onshore Program. [Jan Gorski](#), Director of Oil and Gas at the Pembina Institute, stressed the importance of demonstrating what portion of emission reductions go “above and beyond” the regulatory requirements. “What we need,” [he](#) continued, “is for the government to show how much of that was incremental to what the regulations would have achieved anyway.” [Mr. Gorski](#) noted that the data from the third intake will show how applicants have exceeded regulatory

17 House of Commons, Standing Committee on Natural Resources (RNNR), [Evidence](#), 2 February 2022, 1540 (Hon. Jonathan Wilkinson, Minister of Natural Resources).

requirements, but [he](#) called for the government to release more detailed information about the results of the program.

Recommendation 1

That the Government of Canada publish additional data about the Emissions Reduction Fund Onshore Program, including:

- **identifying what portion of emissions reductions achieved in the first two intakes of the program exceeded what would otherwise been required by regulations; and**
- **releasing more detailed information about the projects, costs and emissions reductions achieved by the program.**

Future Initiatives to Reduce Methane Emissions

The ERF Onshore Program is only one of various measures intended to help Canada reach its methane emissions reduction targets. While evaluating this program, witnesses also commented on the role of other federal initiatives, particularly subsidies, regulations and data collection, in helping to reduce methane emissions from the oil and gas sector.

Subsidies

Given that Canada has [committed](#) to phase out “inefficient fossil fuel subsidies”¹⁸ by 2023, some of the discussion around the ERF Onshore Program focused on the role of subsidies. For his part, the [Commissioner](#) characterized the ERF Onshore Program as a subsidy, but emphasized that it was not his role to recommend what policies the government should adopt. The Commissioner’s report suggested that government programs might be considered “inefficient fossil fuel subsidies” if they are not effective at reducing emissions and do not represent value for money.¹⁹

[Patrick Kitchin](#)’s testimony pointed to some of the potential benefits of financial support for the sector. Noting that the ERF was launched when the oil and gas sector was under “severe financial duress” and “struggling” due to low commodity prices, he explained

18 The term was not defined in the context of this study.

19 OAG, *Emissions Reduction Fund – Natural Resources Canada*, Report 4 in the 2021 *Reports of the Commissioner of the Environment and Sustainable Development to the Parliament of Canada*, p. 5.



that the program supported the sector at a time when many companies were cutting their capital development programs. In [his](#) view, the ERF Onshore Program enabled emissions reductions that would not otherwise have taken place and directly supported “service companies, contractors, communities and landowners” that would otherwise have been affected by the decline in spending in the sector.

As noted above, two witnesses disagreed with this point of view, arguing that the third intake of the ERF Onshore Program should be deferred. These witnesses claimed that the program represented an “inefficient fossil fuel subsidy,” with Environmental Defence describing the program as “just one of several new funding programs set up to provide fossil fuel subsidies under the guise of emissions reductions and job creation.”²⁰

In contrast, the [IISD](#) expressed general concerns about subsidies for the oil and gas sector but asserted that there was “a role” for programs like the ERF Onshore Program. Speaking on behalf of the organization, Senior Associate [Aaron Cosbey](#) said that subsidies for oil and gas can increase the viability of industries whose products exacerbate climate change, may blunt progress toward energy transition, and may violate the “polluter pays” principle. To reduce these risks, the IISD outlined principles for administering subsidies, including: not providing support that lowers the cost of production for oil and gas; supporting only applicants with credible net-zero plans; and not providing support for complying with existing or pending regulations.

Recommendation 2

That, as the Government of Canada works to identify and eliminate “inefficient fossil fuel subsidies” by 2023, it should phase out programs for the oil and gas sector that subsidize compliance with existing or pending regulations.

Regulations

Many witnesses commented on the central role of the methane regulations in reducing methane emissions in the oil and gas sector. In [Patrick Kitchin’s](#) words, regulations are “the minimum expectation of industry. It’s to set the bar of where every producer needs to get to if they aren’t there already.”

Some witnesses expressed concern that the current federal methane regulations are not sufficiently stringent to meet the country’s climate goals. The [David Suzuki Foundation](#)

20 RNNR, [Evidence](#), 31 January 2022, 1640 (Julia Levin, Climate and Energy Program Manager, Environmental Defence Canada); see also: RNNR, [Evidence](#), 31 January 2022, 1630 (Pierre-Olivier Pineau, Professor, HEC Montréal).

projected that Canada's existing measures would only reduce methane emissions by 29% by 2025 compared to 2012 levels, short of the country's goal to reduce these emissions by 40% to 45%.²¹ The [Pembina Institute](#) concurred that the regulations appeared to be "falling short" of achieving the 2025 target, and that "we are still in the dark" about the country's overall progress toward its goals.

Accordingly, some witnesses contended that the federal government should strengthen its methane regulations.²² [Tom L. Green](#), Senior Climate Policy Advisory at the David Suzuki Foundation, noted that the current regulations do not require the elimination of all continuous sources of intentional routine venting. He said the Foundation "would really like to see" the regulations changed but acknowledged that this process would "take time." In the interim, he said, the third intake of the ERF Onshore Program could help to reduce emissions beyond current regulatory requirements. The [Pembina Institute](#) agreed that the program could provide an incentive that exceeds the current regulations, but that "beyond [the program], "we really need to lean on strong regulations to send a signal for companies to start addressing methane."

Similarly, the [IISD](#) characterized programs like the ERF as a "second-best solution" compared to "strong, effective regulations that reduce methane emissions in the oil and gas sectors." The [organization](#) echoed the call for stronger regulations, mentioning that pneumatic gas-activated controllers, which are the main source of intentional emissions, have inexpensive technological substitutes and "should be regulated out of existence."

Data on Methane Emissions

The Government of Canada has acknowledged that it has underreported methane emissions from the oil and gas sector. It committed to release revised methane emissions data in its 2022 National Inventory Report to the United Nations Framework Convention on Climate Change, which was published in April 2022.²³

21 The Suzuki Foundation projection is based on modeling from ECCC that has since been updated. In December 2021, ECCC [estimated](#) that Canada would reduce methane emissions by 39% below 2012 levels by 2025. For a reference to the earlier modeling, see: Pembina Institute, [Media briefing on Canadian methane regulations](#), 3 September 2020.

22 In addition to the testimony from the David Suzuki Foundation and the Pembina Institute, below, see also: RNNR, [Evidence](#), 31 January 2022, 1730 (Dale Marshall, Manager, National Climate Program, Environmental Defence Canada).

23 ECCC, [National Inventory Report 1990-2019: Greenhouse Gas Sources and Sinks in Canada: Canada's Submission to the United Nations Framework Convention on Climate Change](#), Part 1, p. 1.

At the time of the study, the Committee relied on methane emissions data from Canada's 2021 National Inventory Report, but the Committee's report uses data from the 2022 National Inventory Report.



Witnesses outlined steps that the Government of Canada could take to improve its monitoring of methane emissions. As [Aaron Cosbey](#)—speaking for the IISD—put it, “we don’t know the scale of the [methane emissions] problem, so how can we address it?” The IISD recommended mandating more frequent surveys to find and fix leaks and metering all sources of known intentional emissions. [Brent Lakeman](#), the Director of the Hydrogen Initiative at Edmonton Global, commented that there are many technologies to monitor fugitive emissions, including satellites and ground-based measuring tools. He suggested that governments should closely examine emerging technologies to identify lower-cost options that monitor large areas for fugitive emissions.

Recommendation 3

That the Government of Canada work with provinces and territories, and industry to improve the monitoring of emissions in the oil and gas sector, including by:

- **expanding requirements that apply to the metering of intentional emissions; and**
- **mandating additional efforts to survey and fix unintentional emissions.**

CONCLUSION

Methane emissions pose a grave risk to the global climate. This potent greenhouse gas can be produced in many ways, and in Canada the largest single source of methane emissions is the oil and gas sector. Fortunately, there are steps that the sector can take to reduce or eliminate methane emissions from oil and gas production. The ERF Onshore Program, first announced early in the COVID-19 pandemic, aimed to help oil and gas companies take these steps. Witnesses who appeared for this study held differing views on the program, but ultimately agreed that Canada should be working to reduce methane emissions as much as possible, as quickly as possible.

To that end, the committee has recommended that the Government of Canada publish more data about the ERF Onshore Program, phase out programs for the oil and gas sector that subsidize compliance with existing or pending regulations, and work to strengthen the monitoring of emissions in the sector. By improving the transparency and effectiveness of federal policies, Canada will be better positioned to cut its emissions of this harmful greenhouse gas.

APPENDIX A LIST OF WITNESSES

The following table lists the witnesses who appeared before the committee at its meetings related to this report. Transcripts of all public meetings related to this report are available on the committee's [webpage for this study](#).

Organizations and Individuals	Date	Meeting
<p>As an individual</p> <p>Pierre-Olivier Pineau, Professor HEC Montréal</p>	2022/01/31	2
<p>David Suzuki Foundation</p> <p>Tom L. Green, Senior Climate Policy Advisor</p>	2022/01/31	2
<p>Edmonton Global</p> <p>Brent Lakeman, Director Hydrogen Initiative</p>	2022/01/31	2
<p>Environmental Defence Canada</p> <p>Julia Levin, Senior Climate and Energy Program Manager Dale Marshall, Manager National Climate Program</p>	2022/01/31	2
<p>Office of the Auditor General</p> <p>Jerry V. DeMarco, Commissioner of the Environment and Sustainable Development Sylvie Marchand, Director James McKenzie, Principal</p>	2022/01/31	2
<p>Department of Natural Resources</p> <p>Mollie Johnson, Assistant Deputy Minister Low Carbon Energy Sector Michael Layer, Program Manager, Clean Air and Energy Research Debbie Scharf, Director General Clean Fuels Branch Hon. Jonathan Wilkinson, P.C., M.P., Minister of Natural Resources</p>	2022/02/02	3

Organizations and Individuals	Date	Meeting
International Institute for Sustainable Development Aaron Cosbey, Senior Associate	2022/02/02	3
The Pembina Institute Jan Gorski, Director Oil and Gas Chris Severson-Baker, Regional Director Alberta	2022/02/02	3
Whitecap Resources Inc. Patrick Kitchin, Director Regulatory and Environmental Sustainability	2022/02/02	3

REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, the committee requests that the government table a comprehensive response to this Report.

A copy of the relevant *Minutes of Proceedings* ([Meetings Nos. 2, 3, 12, 14, 17, 19, 23, 26 and 27](#)) is tabled.

Respectfully submitted,

John Aldag
Chair

EMISSIONS REDUCTION FUND ONSHORE PROGRAM –

SUPPLEMENTARY OPINION FROM HER MAJESTY’S OFFICIAL OPPOSITION

Committee Members of the Official Opposition would like to thank the witnesses who appeared before the committee to contribute to this study on reviewing the Emissions Reduction Fund – Onshore Program. We also appreciate the efforts of our committee analysts in the drafting of the original report.

As the Commissioner of the Environment of Sustainable Development (hereafter, ‘the Commissioner’) stated in his report, the government did not design and implement the fund to achieve greenhouse gas emission reductions in the oil and gas sector in a manner that would ensure value for money.

Even though the government touted the program would help maintain jobs in the oil and gas sector, the Commissioner found they did not include job retention as a feature in the program’s design.

Government programs must be designed and implemented in a manner to ensure value for taxpayers’ money. Moreover, when the government announced job retention would be a key aspect of the program, it is unacceptable they did not list job retention as an eligibility condition or an assessment criterion for funding decisions.

One of the recommendations in the Committee’s report, which calls on the Government of Canada to identify and eliminate “inefficient fossil fuel subsidies” by 2023, should have been more substantial and provided clear guidance to the government.

Recommendation 1:

We recommend the government should clearly identify, quantify, and phase out programs for the Canadian energy sector that subsidize compliance with existing regulations.

In this regard, ‘Inefficient subsidies’, as applied to the Government of Canada, should be defined as follows:

- ***Government of Canada grants or payments; below-market provisions of capital; contracts for difference; social financing; unequal capital cost allowance allocation differentials; trade-access program funding; and expenditures to reduce or delay taxation, such as ‘flow-through’ financing mechanisms.***

In addition, as energy is an essential input to economic activity and our standard of living, and the source of the energy is fungible with respect to its social utility, common measurements must be applied across all energy sources that receive any government subsidies or programming. Common comparison elements must include full cycle costing, including:

- ***Purchase and disposition of capital equipment; common depreciation schedules or capital cost allowance rates; and accredited capital costs.***

A level comparison of costs and benefits is essential to determining relative effectiveness of subsidies.

Some government funding is, by necessity, inefficient. For example, programming aimed at pursuing advancements in environmental technologies to better the outcomes of energy sources are, by design, inefficient. This is especially true at early stages of development, which is when government support may be most beneficial. However, government funding should not be directed to programming that aims to attain societal objectives beyond the aim of sourcing safe, secure, affordable energy for Canadians.

We also note, with clarity, that methane emissions in 2020 (the last year that measurements are available), attributable to the oil and gas sector, have decreased by 11% from 2019 – while oil and gas production decreased by 4% due to the economic effects of the COVID pandemic. The excess reduction of 7% is indicative of an industry that is at the forefront of meeting challenges with respect to the environmental outcomes of its production, which meets an essential public need. This 7% reduction is on a full production-measured basis, and should be considered in the context of the oil and gas industry’s consistent, proven reduction in emissions intensity (emissions per unit produced) over the past three decades. This reduction in emissions intensity leads the world.

We recognize that outcomes matter – and the Emissions Reduction Fund has appeared to help in the indication of lowering emissions produced by Canada’s oil and gas industry.

Recommendation 2:

We recommend the government design the program (and all similar programs in the future) to attain measurable objectives.

Those objectives should clearly include retention of labour force, when that is part of the program’s intent – and the outcome should be measured – from retained labour perspective, as well as retained personal and corporate taxes paid because of the retention. Ancillary government revenues – including, but not limited to excise taxes, sales taxes, and royalties, should also be measured in assessment of the outcomes of the program to the Canadians Treasury.

The objectives should also measure the desired environmental outcome in determining if the program accomplished its intended outcome.

DISSENTING REPORT: Study on the Emissions Reduction Fund – Onshore Program
Mario Simard, MP for Jonquière (Bloc Québécois)

The oil and gas sector is responsible for roughly 26% of Canada’s GHG emissions, making it the largest emitting economic sector in 2019. Since 2005, this sector’s emissions have increased by 137%, due mainly to significant growth in fossil fuel production. It is worth noting that in Canada’s 2021 greenhouse gas inventory, the federal government acknowledged that it had underestimated methane emissions in the oil and gas sector, primarily from leaks, which is supported by independent scientific studies.¹

In light of this, it was legitimate to expect that the Emissions Reduction Fund – Onshore Program, developed by Natural Resources Canada as part of Canada’s COVID-19 Economic Response Plan, would be designed to cut methane emissions. However, in his November 2021 audit, the Commissioner of the Environment and Sustainable Development (CESD) concluded that the department had failed to meet this target, allowing the recipient oil and gas companies to increase fossil fuel production.

Just as the accounting of greenhouse gases was flawed according to the CESD, there has been no calculation done of how many oil and gas sector jobs have been saved. Furthermore, the program was developed when oil prices plunged at the start of the COVID-19 pandemic. However, by 2021 the price per barrel and production recovered, reaching record highs, and assistance to the industry was no longer warranted. According to the CESD, Dr. Pierre-Olivier Pineau, the International Institute for Sustainable Development, the David Suzuki Foundation and Environmental Defence Canada, the department should make changes to the Emissions Reduction Fund and even cancel the third intake period.

We therefore recommend

1. That the Committee call on the government to use the internationally recognized ISO-14064 standard for developing programs to reduce GHG emissions, as recommended by the Office of the Auditor General.
2. That the Committee call on Natural Resources Canada to end the Emission Reduction Fund (ERF) onshore program since it was developed to cushion the impact of the COVID-19 crisis in early 2021 when a barrel of oil was trading at \$64, and that since then, the price of oil has soared by 100%, to \$128 per barrel today. Since the rationale for the support program has evaporated, the ERF has become a form of direct subsidy to oil and gas companies.

¹ For example, see Katlyn MacKay et al., “[Methane emissions from upstream oil and gas production in Canada are underestimated](#),” *Scientific Reports*, Vol. 11, 2021; and the papers cited in John Liggio et al., “[Measured Canadian oil sands CO₂ emissions are higher than estimates made using internationally recommended methods](#),” *Nature Communications*, Vol. 10, 2019.

NEW DEMOCRATIC PARTY SUPPLEMENTARY OPINION ON METHANE REDUCTION FUND ONSHORE PROGRAM STUDY – June 15, 2022

The New Democratic Party thanks Environment Commissioner DeMarco for his clear analysis of the problems with the Onshore Program of the Emissions Reduction Fund. The need to tackle the venting and release of methane gas has been recognized as an urgent priority at the international level because methane is a planet killer. The program was initiated in response to Prime Minister Trudeau's strong commitment on the global stage to tackle methane emissions from oil and gas operations.

According to the International Energy Agency (IEA), "reducing methane emissions is a powerful and cost-effective way to act" in the face of the climate crisis. The IEA and IPCC recognize that currently available technology could be employed to meet the necessary reduction targets.

This ERF Onshore Program provided an opportunity for Canada's energy sector to show they are committed to addressing the destructive impacts of this gas that has been identified as a planet killer. And yet the program clearly failed in its objectives.

The New Democrats share the concern of the Environment Commissioner that if lessons are not learned government will continue their legacy of failing to meet any of the international targets they have set for dealing with the climate crisis.

On November 25, 2021, Canadian Environment Commissioner Jerry DeMarco released a report highly critical of the government's Emissions Reduction fund program, saying in a news release that "We can't continue to go from failure to failure; we need action and results, not just more targets and plans."

In response to the release of the report, the Standing Committee on Natural Resources passed the following motion at its meeting on December 15, 2021:

That, pursuant to Standing Order 108(2), before February 15, 2022, the committee undertake a two-meeting study concerning the development and implementation of the Emissions Reduction Fund – Onshore Program, with particular focus on the method of accounting for greenhouse gases; that the committee invite the Minister of Natural Resources, the Commissioner of the Environment and Sustainable Development, experts and stakeholders; that the committee make recommendations on the future of the program; and that the committee report its findings to the House.

Key Findings

- The Environment Commissioner found that the Onshore Program of the Emergency Reduction Fund, which was sold to the public as a program to reduce methane emissions, was, in fact, used as a subsidy for the oil and gas industry. The program was constructed to meet the financial needs of companies in the oil & gas sector.

- The program was unable to properly measure any methane reduction, which may have taken place due to design flaws.
- Ministry staff were reluctant to accept criticism of the program's design flaws and remain opposed to using the Commissioner's recommended accounting principles. The Commissioner says this does "not bode well."
- Meeting and exceeding our targets on methane emissions reduction is well within reach but will require the government to strengthen regulations. The technology to reduce emissions already exists and can be easily deployed.

HIGHLIGHTS FROM THE TESTIMONY OF CANADA'S ENVIRONMENT COMMISSIONER

- *In November 2020, the government launched the onshore program of the emissions reduction fund, which was part of Canada's COVID-19 economic response plan. The government saw the \$675-million program as a way to help struggling companies in the energy sector deal with lower oil prices during the pandemic.*
- *Overall, we found that the department did not design the program to ensure value for the money spent or credible and sustainable reductions in greenhouse gas emissions in the oil and gas sector.*
- *When designing the program, the department did not apply greenhouse gas accounting principles or the concept of additionality, which is that emissions reductions should not be attributed to the program if they would have happened regardless of complying with regulations. More than half of the total reductions targeted by the program had already been accounted for under the federal methane regulations. The department, therefore, misstated what the program could achieve.*
- *We also found that the department's expectations for the 40 projects funded in the program's first intake period were overestimated. For 27 funded projects, companies had indicated in their submissions that projects would increase oil or gas production. However, the department did not factor in the emissions from increased production into its estimations. Had these emissions been accounted for, they would have lessened or even outweighed the emission reductions expected from these projects.*
- *Without a complete picture, if we look at programs like this in a myopic way, perhaps it's no surprise that over the last 30 years, the trend in Canada is that emissions are going up, even though we have individual programs intending to diminish those emissions. We recommend looking at the full picture in creating, designing and implementing a program like this.*

- *Yes, this fund is a type of subsidy.*

RECOMMENDATIONS

1. Climate-focused programs must be constructed with the clear and sole objective of dealing with the climate crisis. Allowing the methane reduction program to be used as a subsidy for the oil and gas sector completely undermined the Prime Minister's promise to the international community. We recommend that government ends its pattern of subsidizing the oil and gas sector unless it can be clearly shown that serious emissions reductions can be attained and verified. The industry is highly profitable and must take responsibility for the damage they are doing and pay for mitigation efforts to limit further impacts on the environment.
2. The government has promised new regulations in order to meet a 40-45% reduction in methane by 2030. We recommend that industry be closely monitored to ensure this happens and to include financial penalties for failing to meet these targets.
3. The government needs to implement all the recommendations of the Environment Commissioner report 4 - *Emissions Reduction Fund – Natural Resources Canada*
4. The government must ensure that funds provided to further climate mitigation have transparent accountability mechanisms to fulfill these objectives. If these programs include job retention, clear statistics of jobs created or sustained are included in government accounting.
5. The government must ensure that progress toward Canada's methane reduction targets is provided promptly and transparently and provides predictable and timely updates to the national inventory.
6. The Department of Natural Resources must fully accept the Commissioner of the Environment and Sustainable Development's recommendation that the department develops baseline scenarios and emissions projections for programs intended to reduce emissions.

