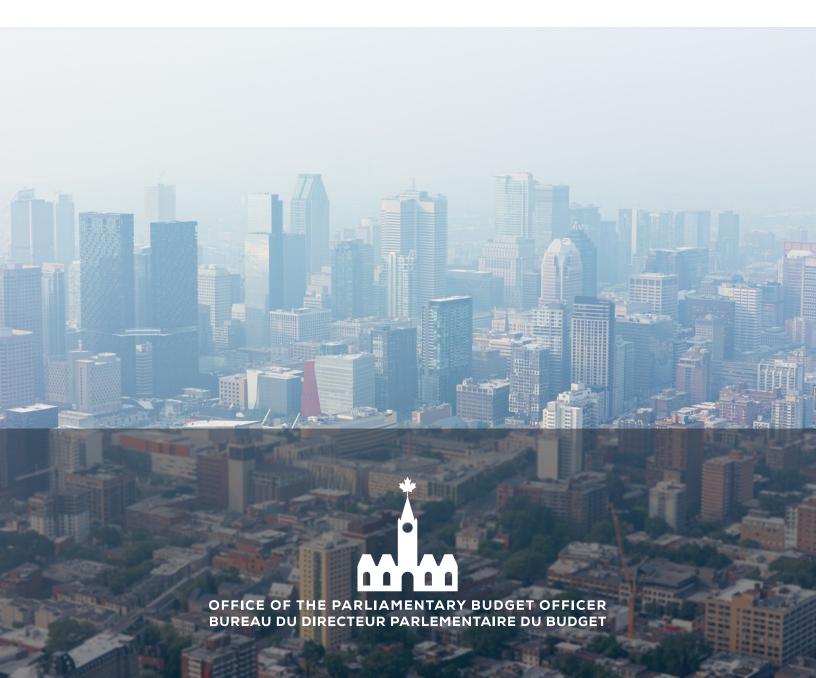
Estimating Canada's 2030 Emissions Gap



The Parliamentary Budget Officer (PBO) supports Parliament by providing economic and financial analysis for the purposes of raising the quality of parliamentary debate and promoting greater budget transparency and accountability.

This report provides estimates of the gap between Canada's projected greenhouse gas emissions in 2030 and the Government's legislated target under the *Canadian Net-Zero Emissions Accountability Act*.

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Table of Contents

Highlights	1
Summary	2
Background	4
Updating Emissions Projections	5
Results	7
Notes	10

Highlights

Under PBO's updated projection that accounts for federal policy revisions earlier this year, we estimate Canada's 2030 emissions gap could range from 49 megatonnes (Mt) to 102 Mt. That is, projected emissions in 2030 could be 49 Mt to 102 Mt above the legislated target of 40-45 per cent below 2005 levels. This would leave Canada's emissions in 2030 at 33.5 per cent and 31.5 per cent, respectively, below 2005 levels.

While the legislated 2030 target puts the focus on emissions in a milestone year, it is also informative to consider the shortfall in performance over time. Based on the Government's Pathway to 2030 (40 per cent below 2005 levels), our updated projections indicate that cumulative emissions over 2025 to 2030 could exceed Pathway levels by between 221 Mt (6.7 per cent) and 289 Mt (8.8 per cent).

Given the construction of our updated projection, PBO estimates of Canada's 2030 emissions gap should be seen as approximate. Our analysis does not attempt to account for potential interactions between the policy revisions, nor does it consider any policy revisions made by provincial and territorial governments earlier this year. That said, our estimate of the 2030 emissions gap is, on balance, lower than recent external estimates.

Summary

This report provides estimates of the gap between Canada's projected greenhouse gas (GHG) emissions in 2030 and the Government's legislated target under the <u>Canadian Net-Zero Emissions Accountability Act</u> (the Act). This Act enshrined in legislation Canada's emissions targets of 40-45 per cent below 2005 levels by 2030 (the first milestone year) and net-zero GHG emissions by 2050.

The Government's <u>2030 Emissions Reduction Plan</u>, launched in March 2022, presented an "evergreen roadmap" for Canada to reach its emissions targets. Earlier this year, a series of federal policy revisions—removal of the consumer carbon price; delaying implementation of the Electric Vehicle Availability Standard; and reconsideration of the oil and gas emissions cap—introduced significant changes to measures under the 2030 Emissions Reduction Plan.

We use the <u>most recent emissions projection</u> from Environment and Climate Change Canada (ECCC), updated using <u>current emissions data</u>, along with ECCC-based estimates of the impacts of recent policy developments, to calculate the gap in 2030 between projected emissions and the legislated target. We also calculate the cumulative gap over 2025 to 2030 between projected emissions and the Government's <u>Pathway to 2030</u>. Our analysis does not incorporate new measures under consideration in the Government's recently announced <u>Climate Competitiveness Strategy</u> from Budget 2025.

Key findings

- Under our updated projection that accounts for federal policy revisions earlier this
 year, we estimate that Canada's emissions in 2030 could range from 49 megatonnes
 (Mt) to 102 Mt above the legislated target of 40-45 per cent below 2005 levels. This
 would leave Canada's 2030 emissions at 33.5 per cent and 31.5 per cent, respectively,
 below 2005 levels.
- While the 2030 target puts the focus on emissions in a milestone year, it is also informative to consider the shortfall in performance over time. Based on the Government's Pathway to 2030 (40 per cent below 2005 levels), our updated projections (accounting for federal policy revisions) indicate that cumulative emissions over 2025 to 2030 could exceed Pathway levels by between 221 Mt (6.7 per cent) and 289 Mt (8.8 per cent).

Given the construction of our updated projection (that is, applying previously estimated impacts of various emissions reduction policies to an existing baseline that encompasses these policies, as well as other policies), our estimates of the emissions gap in 2030 should be seen as approximate.

Our analysis does not attempt to account for potential interactions between the policy revisions or for differences in underlying baseline scenarios on which their impacts are estimated. Further, our analysis does not consider any policy revisions made by provincial and territorial governments earlier this year.

That said, on balance, our estimate of the emissions gap in 2030, ranging from 49 Mt to 102 Mt, is lower than recent external estimates from the C.D. Howe Institute (82 to 120 Mt) and the Canadian Climate Institute (based on 2030 emissions that are 20 to 25 per cent below 2005 levels).

Background

The Canadian Net-Zero Emissions Accountability Act (the Act) received royal assent in June 2021 and created emissions targets of 40-45 per cent below 2005 levels by 2030 (the first milestone year) and net-zero GHG emissions by 2050. The Government's 2030 Emissions Reduction Plan, launched in March 2022, presented an "evergreen roadmap" for Canada to reach its emissions targets.

Earlier this year, a series of federal policy revisions introduced significant changes to measures under the 2030 Emissions Reduction Plan. In March, the Government eliminated the federal fuel charge, setting rates to zero as of April 1 while keeping industrial carbon pricing in place.² In September, the Government removed the 2026 annual sales requirement under the Electric Vehicle Availability Standard (EVAS) and launched a broader review of the regulation, while maintaining the 2035 (and beyond) target of 100 per cent zero-emission vehicle sales.³ Shortly thereafter, reports indicated that the proposed federal emissions cap for the oil and gas sector was under review, with the Government signaling a shift toward a more flexible "climate competitiveness strategy".⁴

Budget 2025 outlined the Government's Climate Competitiveness Strategy, highlighting improvements to industrial carbon pricing, clarity on GHG regulations and various measures (for example, changes to investment tax credits and support for critical mineral projects). Budget 2025 indicated that the oil and gas emissions cap would not be required with effective carbon markets, enhanced regulations, and technologies (such as carbon capture and storage) "deployed at scale".

Given federal policy revisions earlier this year and uncertainty surrounding the oil and gas emissions cap, we provide an updated emissions projection to estimate the gap between Canada's projected emissions and the Government's 2030 target under the *Canadian Net-Zero Emissions Accountability Act*. Our analysis does not incorporate new measures under consideration in the Government's recently announced Climate Competitiveness Strategy from Budget 2025. Further, our analysis does not consider any policy revisions made by provincial and territorial governments earlier this year. Our projection to 2030 serves as an interim update that will be superseded by ECCC's annual GHG emissions projections, which are expected to be released later this year.

Updating Emissions Projections

The starting point for our updated projection is ECCC's December 2024 "With Additional Measures" (WAM) scenario from <u>Canada's 2024 Biennial Transparency Report</u> (BTR1) under the Paris Agreement. This scenario includes all policies in place as well as "those that have been announced but have not yet been fully implemented" (as of August 2024). For example, this includes announced policies such as enhanced methane regulations and the oil and gas emissions cap.

Moreover, this scenario includes economic sectoral emissions plus the Land Use, Land-Use Change and Forestry (LULUCF) accounting contribution, as well as the impacts of nature-based climate solutions and agriculture measures.^{5,6}

Using the most recent historical emissions data published in March 2025, we then update ECCC's WAM scenario for the period 2024 to 2030 by applying projected emissions growth rates (at the economic sector aggregation) to their corresponding historical levels in 2023. Next, to reflect federal policy revisions earlier this year before Budget 2025, we adjusted the updated WAM scenario by removing ECCC-based estimates of the emissions impacts of the consumer⁷ carbon price; the 2026 annual sales requirement under the Electric Vehicle Availability Standard; and the oil and gas emissions cap. Our analysis does not attempt to account for potential interactions between the policy revisions or for differences in underlying baseline scenarios on which their impacts are estimated.

Eliminating the consumer carbon price

The elimination of the consumer carbon price is expected to increase emissions, as consumers and small businesses will no longer pay a carbon levy on fuels like gasoline and natural gas—weakening the price signal that encourages lower fossil fuel use. In the March 2025 Regulatory Impact Assessment Statement (RIAS) under the amended fuel charge regulations, ECCC estimated that eliminating the fuel charge would add 3 Mt to projected emissions in 2030.⁸

This estimate is much lower than the 13 Mt impact previously provided to the PBO by ECCC in July 2024 under <u>Information Request IR0790</u>. ECCC attributes this revision to methodological differences and interaction effects.⁹ Given the uncertainty surrounding the interaction of the consumer carbon price and other policies, we include both ECCC estimates in our analysis to provide a range of projected emissions levels through 2030.

Delaying the 2026 EVAS sales target

Delaying the 2026 interim target under the Electric Vehicle Availability Standard is expected to slow the transition to zero-emission vehicles in the light-duty sector. Based on ECCC analysis in the December 2023 Regulatory Impact Analysis Statement for the Regulations Amending the Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations, we estimate that delaying the 2026 EVAS sales target by 1 year would reduce the rate of fleet renewal, resulting in higher average emissions per kilometre, adding 1 Mt of emissions in 2030.

Eliminating the oil and gas emissions cap

We acknowledge that the proposed regulations to cap oil and gas emissions remain under consideration and that the cap has not been eliminated. That said, given the uncertainty surrounding the oil and gas emissions cap, we include the impact of its elimination in our estimate of the emissions gap to provide an upper bound.

In the November 2024 <u>Regulatory Impact Assessment Statement</u> for the proposed oil and gas sector emissions cap regulations, ECCC estimated that the cap would reduce economy-wide emissions by a total of 5 Mt in 2030. Based on these results, if the proposed oil and gas cap were eliminated, emissions (particularly from upstream oil production and natural gas processing) would rise, adding 5 Mt to projected emissions in 2030.

Results

The starting point for our updated projection, ECCC's 2024 With Additional Measures scenario revised for historical data, shows Canada's emissions declining from 650 Mt in 2023 to 500 Mt in 2030 (Table 1).¹⁰ Despite this projected decline, emissions in 2030 are 45 Mt above the 40 per cent target threshold and 83 Mt above the 45 per cent target threshold. The starting point projection in 2030 is 34.1 per cent below 2005 levels.

The starting point projection illustrates the emissions trajectory under policies implemented and announced (but not yet fully implemented) that existed prior to the federal policy revisions earlier this year. Based on ECCC estimates, we project that the elimination of the (federal) consumer carbon price would increase emissions by 3-13 Mt and the delay in the 2026 interim target for the Electric Vehicle Availability Standard would increase emissions by 1 Mt in 2030. With these policy revisions, emissions in 2030 are projected to range from 504 Mt to 514 Mt (updated WAM scenario A), which are 33.5 per cent and 32.2 per cent, respectively, below 2005 levels. This translates into a gap of 49-59 Mt above the 40 per cent target threshold and 87-97 Mt above the 45 per cent target threshold.

Although the proposed regulations to cap oil and gas emissions remain under consideration, given the uncertainty surrounding their implementation, we consider the projected impact of their removal on emissions in 2030. Based on ECCC estimates, we project that eliminating the oil and gas emissions cap would increase emissions by 5 Mt in 2030. With this additional policy change, emissions in 2030 are projected to range from 510 Mt to 520 Mt (updated WAM scenario B), which are 32.8 per cent and 31.5 per cent, respectively, below 2005 levels. This translates into a gap of 55-65 Mt above the 40 per cent target threshold and 93-102 Mt above the 45 per cent target threshold.

Given the construction of our updated projection (that is, applying previously estimated impacts of various emission reduction policies to an existing baseline that encompasses these policies, as well as other policies), our estimates of the emissions gap in 2030 should be seen as approximate. Our analysis does not attempt to account for potential interactions between policy revisions or for differences in underlying baseline scenarios on which their impacts are estimated. Further, our analysis does not consider any policy revisions made by provincial and territorial governments earlier this year.

That said, our estimate of the emissions gap in 2030, ranging from 49 Mt (40 per cent target threshold and updated WAM scenario A) to 102 Mt (45 per cent target threshold and updated WAM scenario B), is lower than recent estimates from C.D. Howe Institute (82 to 120 Mt) and the Canadian Climate Institute (based on 2030 emissions that are 20 to 25 per cent below 2005 levels).¹¹

Table 1
Projected emissions and estimated gap to 2030 target of 40-45% below 2005 levels, megatonnes (Mt)

	Histo	Historical Projected		Mt gap: 40% target	Mt gap: 45% target
	2005	2023	2030	2030	2030
ECCC 2024 WAM scenario*	759	650	500	+45	+83
Federal fuel charge removal**	-	-	+3 to +13	+3 to +13	+3 to +13
Delaying 2026 EVAS target***	-	-	+1	+1	+1
PBO updated WAM scenario A	759	650	504 to 514	+49 to +59	+87 to +97
Oil and gas cap removal****	-	-	+5	+5	+5
PBO updated WAM scenario B	759	650	510 to 520	+55 to +65	+93 to +102

Source:

Environment and Climate Change Canada and Office of the Parliamentary Budget Officer.

Note:

^{*} The 2024 BTR1 With Additional Measures scenario was revised to reflect historical data from the 2025 National Inventory Report and exclusion of WCI credits. ** The range of impacts are based on ECCC estimates provided under PBO Information Requests IR0790 and IR0849. *** Impacts are based on ECCC estimates presented in the Regulatory Impact Analysis Statement SOR/2023-275. **** Impacts are based on ECCC estimates presented in the November 2024 Regulatory Impact Analysis Statement. Numbers may not add due to rounding.

Assessing cumulative emissions between 2025 and 2030 provides a broader perspective on Canada's short-term progress toward its climate goals. While annual emissions levels reflect year-to-year performance, cumulative totals better capture the overall impact of Canada's emissions trajectory. Since global warming depends on the stock of global emissions, higher cumulative totals reduce Canada's remaining "carbon budget" and require larger reductions at later stages to stay aligned with net-zero emissions by 2050.¹²

While the *Canadian Net-Zero Emissions Accountability Act* does not legislate the annual emissions trajectory to 2030, we use ECCC's <u>Pathway to 2030</u>¹³ (40 per cent below 2005 levels) projection of emissions over 2025 to 2030 as benchmark for comparison to our updated WAM scenarios. Relative to the Pathway benchmark, under our updated WAM scenarios, cumulative emissions over 2025 to 2030 are projected to be 221 Mt (6.7 per cent) to 289 Mt (8.8 per cent) higher (Table 2).

Table 2
Cumulative emissions in updated WAM scenarios and ECCC's
Pathway to 2030 (40 per cent below 2005 levels), megatonnes

	PBO updated WAM scenario A	PBO updated WAM scenario B	ECCC's Pathway to 2030 (40%)
Emissions over 2025 to 2030	3,519	3,587	3,298

Source:

Environment and Climate Change Canada and Office of the Parliamentary Budget Officer.

Notes

- ¹ In December 2024, the Government <u>announced a target of 45-50 per cent</u> below 2005 levels for the milestone year 2035. Despite this new target, the 2030 target remains the legally binding benchmark under the *Canadian Net-Zero Emissions Accountability Act*.
- ² See <u>Removing the Consumer Carbon Price Effective April 1, 2025</u>. Amendments to the Output-Based Pricing System Regulations were also implemented, expanding coverage to on-site transport emissions, revising compliance rules for voluntary facilities, and signaling tighter benchmarks in future periods. See <u>Canada Gazette</u>, <u>Part II</u>, <u>SOR/2025-108</u>, <u>Regulations Amending the Output-Based Pricing System Regulations</u>.
- ³ See <u>Prime Minister Carney launches new measures to protect, build, and transform Canadian strategic industries.</u>
- ⁴ See <u>Canada May Drop Oil Emissions Cap as Part of New Climate Plan, Sources Say.</u>
- ⁵ For a description of these items, see Section A1.5 and Annex 2 in Canada's <u>2024</u> <u>Biennial Transparency Report</u>.
- ⁶ Following the withdrawal of the United States from the Paris Agreement in 2025, we exclude ECCC's projected emissions reductions from the purchase of Western Climate Initiative credits in our updated WAM projection.
- ⁷ The 2025 amendments to the Output-Based Pricing System Regulations were excluded from this analysis due to limited availability of detailed data. The related Regulatory Impact Analysis Statement did not provide quantified emission estimates and indicated that a full environmental and economic assessment is still pending. Further, ECCC considers the amendments related to on-site transportation emissions to be technical, with no effect on projected greenhouse gas emissions through 2035.
- ⁸ All estimates expressed in megatonnes in this report have been rounded to the nearest megatonne.
- ⁹ ECCC's July 2024 analysis compared a scenario where the fuel charge was never implemented to one where it was in place, while their current estimate was based on the assumption that the fuel charge remained in place until 2024 and then removed in 2025. In addition, the July 2024 estimate does not account for overlapping policies—such as

the Clean Fuel Regulations, the EVAS, and the Green Buildings Strategy—that interact with the fuel charge and reduce its estimated impact.

- ¹⁰ Unadjusted for historical data, ECCC's December 2024 WAM scenario projected emissions to decline from 648 Mt in 2023 to 502 Mt in 2030, which is 34.1 per cent below 2005 levels.
- ¹¹ See the September 2025 release by the C.D. Howe Institute, <u>Restoring Credibility to Canada's Climate Change Policies and Targets</u>, which found that based on updated data, "Canada will now miss its 2030 emissions target by between 82 and 120 million tonnes under a reference case scenario. Even under a more optimistic scenario, Canada will still miss by between 58 and 96 million tonnes."

See the September 2025 release by the Canadian Climate Institute, <u>2024 emissions</u> <u>estimate shows progress stalled, Canada's 2030 climate target out of reach</u>, which found that "Canada's emissions are on track to be just 20 to 25 per cent below 2005 levels in 2030". Using the current estimate of emissions in 2005 of 759 Mt, we calculated megatonne-equivalent levels in 2030 to be 607 Mt and 569 Mt respectively.

- ¹² A carbon budget is the total amount of GHGs that can be emitted over time while keeping global warming below a chosen limit. <u>The Intergovernmental Panel on Climate Change (IPCC)</u> shows that global warming depends mainly on cumulative emissions rather than annual levels. In Canada, <u>the Net-Zero Advisory Body uses this framework to guide policy</u>, recommending that Canada set its own carbon budget to align near-term targets with the 2050 net-zero goal under the *Canadian Net-Zero Emissions Accountability Act*.
- ¹³ To align ECCC's Pathway to 2030 (from the March 2022 Emissions Reduction Plan) to our updated projection, we scaled the projected emissions levels under the Pathway trajectory by the percentage difference between the current 40 per cent target threshold of 455 Mt in 2030 and the projected pathway level of 443 Mt in 2030. Consequently, the Pathway projection over 2025 to 2030 was revised up by 15 Mt annually, on average (89 Mt on a cumulative basis). For further information on ECCC's Pathway to 2030, see <u>Annex 5</u> in the March 2022 Emissions Reduction Plan.