Charting the Course

How Canada's industrial carbon price can drive investment and emissions reductions beyond 2030

IISD REPORT

International Institute for Sustainable Development

Steven Haig
Aaron Cosbey

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Head Office

111 Lombard Avenue, Suite 325
Winnipeg, Manitoba
Canada R3B 0T4

iisd.org

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Written by Steven Haig and Aaron Cosbey

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Executive Summary

Industrial carbon pricing is a highly efficient policy and could be Canada's most important tool to drive industrial decarbonization. Today, however, the policy is in jeopardy. A recent agreement between the governments of Canada and Alberta has weakened the price trajectory in Alberta and set the stage for lower pricing standards across the country. A well-designed industrial carbon price could still lead the way for Canada's emissions reductions while supporting industrial competitiveness in a decarbonizing world, but only if a stronger pricing trajectory is adopted.

This report presents our analysis of three carbon price trajectories between 2030 and 2040 to understand their environmental and economic effects, which should, in turn, inform policy design. The three trajectories, modelled by Navius Research Inc., are as follows:

- **flat price**: The effective carbon price—defined as the price that industrial facilities pay for carbon credits in secondary markets—reaches CAD 130/t CO_2e in 2030 and remains constant to 2040. This is a more ambitious scenario than the trajectory that reaches CAD 110/t in 2040 as agreed in the recent Canada–Alberta implementation agreement. Using our flat-price scenario as a baseline to evaluate the two more ambitious scenarios below is therefore likely to yield conservative estimates of their benefits relative to Canada's current pricing regime.
- **low price**: The effective carbon price reaches CAD 130/t CO_2e in 2030 and rises linearly to CAD 230/t CO_2e in 2040.
- **high price**: The effective carbon price reaches CAD 130/t CO_2e in 2030 and rises linearly to CAD 380/t CO_2e in 2040.

Key Finding 1

A strong and rising industrial carbon price drives new investment in clean projects and achieves significant emissions reductions with minimal economic impacts. Compared to a flat price of CAD 130/t CO_2e, a high-price scenario that rises to CAD 380/t CO_2e in 2040 yields the following results:

- Annual greenhouse gas (GHG) emissions are projected to be 73 megatonnes (Mt) CO_2e lower in 2035 and 108 Mt CO_2e lower in 2040. In 2040, these emissions reductions are equivalent to eliminating a year's worth of GHG emissions from almost all road transportation in Canada and could save an estimated CAD 36.8 billion in global climate-related damages (based on the federal government's estimated social cost of carbon).
- Canada's economy continues to grow year-over-year under a high-price scenario. From 2030 to 2040, national GDP rises by 1.62% per year on average under the flat-price scenario. Under the high-price scenario, this average growth rate is 0.05% lower, corresponding to a loss of GDP in 2040 of 0.49%. Annual GHG emissions, by contrast, are 20% lower in 2040.

- Total investment in the economy—driven by the uptake of low-carbon technologies—is expected to be approximately CAD 11 billion higher in 2035 and CAD 8 billion higher in 2040, representing increases of 4.5% and 3%, respectively.

Key Finding 2

Tightening performance standards relatively more quickly in sectors that are less exposed to international competition—such as oil and gas production—maintains strong emissions reductions while delivering better economic outcomes in terms of jobs, GDP, and net exports. This allows policy costs to be distributed more efficiently across industries based on real-world competitiveness risks.

- Context: Performance standards determine the level of allowable emissions for facilities in each sector. Facilities pay for their emissions above the relevant emissions-intensity threshold and earn credits if their emissions fall below that threshold. Performance standards become more stringent ("tighten") over time at a specified rate that can differ by sector, meaning that facilities pay the carbon price on a greater share of the emissions they generate. This strengthens the incentive to decarbonize over time.
- In a high-price scenario, adjusting the tightening rates of performance standards across sectors in line with real-world competitiveness risks results in almost 12,000 more full-time equivalent jobs, CAD 2.6 billion more in GDP, and over CAD 1 billion more in net exports in 2040.
- The economic benefits of tightening performance standards relatively more quickly for less trade-exposed sectors come with almost no impact on total annual emissions. For example, when tightening rates are adjusted in the high-price scenario, total annual emissions are only 1 Mt CO_2e higher in 2035 and are unchanged in 2040.

Key Finding 3

While a strong and rising industrial carbon price triggers meaningful emissions reductions with minimal impacts on economic growth, achieving net-zero emissions by 2050 will only be possible if robust complementary climate policies are also in place.

- Almost 90% of projected emissions reductions achieved in 2040 by a high industrial carbon price (relative to the flat-price scenario) occur in industrial sectors. Additional climate policies that target non-industrial sectors, such as buildings, agriculture, and transportation, are essential to achieve economy-wide emissions reductions.
- As the cost of clean technology declines in our modelling, the industrial carbon price becomes more effective. In the high-price scenario, lower clean technology costs reduce annual emissions by a further 60 Mt CO_2e in 2040 while adding more than CAD 40 billion dollars to national GDP in 2040. A green industrial strategy that lowers the costs of clean technologies could amplify the benefits of an industrial carbon price set at any level.

- Modelling a policy rollback scenario in all three pricing trajectories above shows that repealing or weakening existing climate policies (clean fuel regulations, methane regulations, and clean electricity regulations) results in higher emissions with no clear economic benefit.

Recommendations

1. **Adopt a national carbon price trajectory that is significantly stronger than the trajectory announced in the recent Canada–Alberta Implementation Agreement**. This would help bring Canada's heavy industry in line with national climate targets and support its industrial competitiveness in global markets.
2. **Increase the share of emissions for which facilities pay the carbon price, with a faster rate of increase for sectors that face less competitiveness risk**. This means sectors such as oil and gas production would face a faster tightening rate of performance standards than more vulnerable sectors such as steel production.
3. **Support Canada's industrial carbon price with complementary policies**, such as a green industrial strategy, targeted climate policies in non-industrial sectors, and phasing out fossil fuel subsidies. Complementary policies that target industrial emissions will also be crucial to meet Canada's legislated climate targets, especially if the pricing trajectory remains low as set out in the Canada–Alberta Implementation Agreement.

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1.0 Context

Industrial carbon pricing is an effective and efficient tool for achieving emissions reductions while maintaining industrial competitiveness, even for trade-exposed sectors. This is a near-consensus opinion in academic and policy literature (Allan et al., 2024; Dimanchev & Knittel, 2023; Döbbeling-Hildebrant et al., 2024; Metcalfe, 2021; Venmans et al., 2020). Research from the Canadian Climate Institute has estimated that, between 2025 and 2030, the current industrial carbon price is expected to have by far the largest impact on emissions of any federal climate policy (Beugin et al., 2024).[1] It does this with negligible impacts for ordinary households while also ensuring that compliance costs for industry remain low (Linden-Fraser & Sawyer, 2025). For example, at an effective price of CAD 130 per tonne of CO_2e, oil sands producers would only pay an estimated average of CAD 0.50 per barrel of oil in 2030—that's roughly the cost of a Tim Hortons' Timbit (Beugin & Linden-Fraser, 2026).

Recognizing this, the federal government has emphasized that industrial carbon pricing will play a leading role in meeting Canada's climate targets (Government of Canada, 2025, pp. 106–107). Specifically, Canada has a legislated commitment to reach net-zero emissions by 2050, while reducing its GHG emissions by 40%–45% by 2030 and 45%–50% by 2035, relative to 2005 levels (Environment and Climate Change Canada, 2024). These commitments are essential to slow the pace of climate change—the costs of which are already impacting Canadians across the country in the form of wildfire damages, higher home insurance premiums, and economy-wide productivity losses (Environment and Climate Change Canada, 2025a; Sawyer et al., 2022). Without concerted action to reduce emissions, the costs to Canadian households and businesses will multiply over time as temperatures rise (Sawyer et al., 2022).

Despite the imperative for action, Canada is far from reaching its targets. The government's most recent emissions reduction progress report estimates that without additional policies, emissions in 2030 will only be 21% lower than 2005 levels (Environment and Climate Change, 2025). Even with additional policy measures currently considered by the government, emissions are only expected to fall 28% below 2005 levels (Environment and Climate Change, 2025). This outlook has been further complicated by recent climate policy rollbacks, such as the consumer carbon price and the zero-emissions vehicle availability standard (Department of Finance Canada, 2025; Prime Minister of Canada, 2026b). The government has also agreed to grant regulatory exemptions to Alberta, including a 5-year delay to implementing federal methane regulations and disapplying the clean electricity regulations in the province (Prime Minister of Canada, 2026a). This could, in turn, trigger a race-to-the-bottom in other jurisdictions (Haig, 2025a). At the same time, the government has increased support for oil and gas project expansion by offering new subsidies to liquefied natural gas facilities (Government

[1] This estimate was calculated in 2024 before several key climate policies were abandoned or weakened, meaning the industrial carbon price has even greater significance today.

of Canada, 2026a), enhanced oil recovery (Government of Canada, 2026a), and potentially a new oil pipeline (Thurton, 2026). These policy rollbacks and additional supports for fossil fuel expansion will make Canada's climate targets even more difficult to achieve.

In addition to these rollbacks, the federal government has agreed to weaken the industrial carbon price in Alberta relative to the previous national standard. The scheduled headline price in 2030 will now be CAD 115/t instead of CAD 170/t (Prime Minister of Canada, 2026a). While some progress has been made by setting minimum credit prices—adding predictability to the market—the trajectory for these credit prices is arguably too low to substantially incentivize emissions reductions. The minimum credit price is only scheduled to reach CAD 60/t in 2030 and CAD 110/t in 2040 (Prime Minister of Canada, 2026a). These figures are also nominal and will therefore be much lower in practice once inflation is accounted for (Sanderson, 2026). Meanwhile, the headline price trajectory for the federal benchmark has been updated to replicate the new trajectory in Alberta across the country—although the specifics of a potential federal minimum effective price are not yet confirmed (Government of Canada, 2026b). Simply put, Canada's central climate policy has been weakened to the extent that Canada's climate targets are now "firmly out of reach" (Smith, 2026).

To get Canada back on track, a strengthened industrial carbon price is essential. In practice, this requires addressing the weak incentives offered for industrial decarbonization by the price trajectory established under the recent agreement between Canada and Alberta (Prime Minister of Canada, 2026a).

This report addresses the question: what would a stronger carbon price achieve, and at what cost? It does this by presenting modelling results for three different price trajectories. These results help outline the potential economic impacts and emissions reductions associated with each trajectory, while also offering insights for policy design. The report proceeds as follows: Section 2 explains the methodology used for the modelling, Section 3 highlights three key findings, and Section 4 concludes with three related policy recommendations.

2.0 Methodology

The modelling that forms the basis of this report's recommendations was commissioned by the International Institute for Sustainable Development (IISD) from Navius Research Inc., an independent non-partisan consultancy based in Vancouver. Navius employed its in-house gTech-IESD model—a computable general equilibrium model with integrated energy, economy, and electricity components that simulates the impacts of government policy and other external developments on both technology adoption and the broader economy.[2]

2.1 The Scenarios

The modelling considered three post-2030 industrial carbon price trajectory scenarios (see Figure 1).[3] Note that these scenarios were designed prior to the announcement of the Canada–Alberta memorandum of understanding implementation agreement, using CAD 130/t as a baseline assumption in 2030 for all three scenarios.

- **Flat**: The effective carbon price—defined as the price that industrial facilities pay for carbon credits in secondary markets—reaches CAD 130/t CO_2e in 2030 and remains constant to 2040. This is a more ambitious scenario than the trajectory that reaches CAD 110/t in 2040 as agreed in the recent Canada–Alberta implementation agreement. Using our flat-price scenario as a baseline to evaluate the two more ambitious scenarios below is therefore likely to yield conservative estimates of their benefits relative to Canada's current pricing regime.
- **Low**: The effective carbon price reaches CAD 130/t by 2030 and continues on the same linear trajectory (increasing by CAD 10/t per year), reaching CAD 230/t in 2040.
- **High**: The effective carbon price reaches CAD 130/t by 2030 and then increases linearly by CAD 25/t per year to reach CAD 380/t in 2040.

Findings are presented for each of those price trajectories under three scenarios:

- **legislated policy (reference case)**: Includes key provincial and federal policy legislated as of February 2026 (accounting for the removal of the federal light-duty zero emission vehicle sales mandate);
- **legislated policy rollback**: a less-stringent legislated policy baseline, namely, removal of the Clean Fuel Regulations and the Clean Electricity Regulations, and a 5-year delay of the 75% methane regulation;

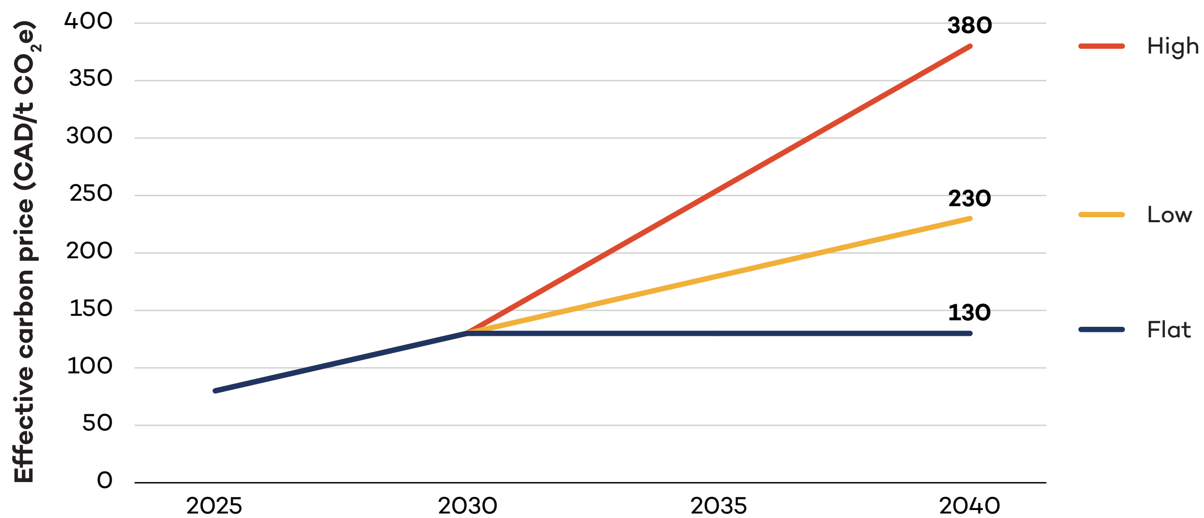
[2] A detailed description of the model can be found at https://www.naviusresearch.com/gtech/

[3] Further detail on these scenarios, as well as the full data set of results, can be found at https://www.iisd.org/publications/report/canada-industrial-carbon-price-beyond-2030.

- **legislated policy with sector-specific tightening of sectoral performance standards**: In the federal backstop regime, each sector has a threshold standard—based on sectoral average GHG emissions intensity—below which facilities do not pay for their emissions. The current backstop regime tightens those standards by 1%–2% per year in most cases, forcing industrial emitters to meet stricter performance targets. In the other scenarios described above, the model tightens the standards for all sectors equally to achieve the desired carbon price trajectory. In this variation, performance standards are tightened less quickly for the most trade-exposed sectors (steel, cement, fertilizers, pulp & paper, and chemicals) and more quickly for all other covered sectors.

Finally, each of the resulting nine scenarios was subject to a sensitivity analysis that varied the costs of 10 key clean technologies at low, medium, and high levels, with medium-level costs used as the reference case in the findings below.[4]

Figure 1. Industrial carbon price trajectories



Source: Author's analysis, using data from IISD and Navius Research Inc., 2026.

2.2 Assumptions, Limitations, and Notes for Interpretation

- Results were specified for each sector (and sub-sectors) for 2030, 2035, and 2040, in terms of GHG emissions, GDP, jobs, exports, imports, investment, and returns to capital. All dollar figures in the reported modelling results are expressed in real CAD 2015.
- Our baseline assumption that the effective industrial carbon price reaches CAD 130/t in 2030 in all scenarios was based on the price referenced in the memorandum of

[4] Cost assumptions, along with other general assumptions such as oil price trajectories, are available at: https://canadaenergydashboard.com/data/navius_research_gtech_iesd_model_documentation.pdf.

understanding between Canada and Alberta signed in November 2025 (Prime Minister of Canada, 2025). Given that an effective price of CAD 130/t by 2030 would have been a 24% discount from the then-regulated headline price of CAD 170/t in 2030, this was considered to be a conservative baseline estimate for modelling our post-2030 pricing scenarios.

- For each carbon pricing trajectory, the market is binding at the specified effective carbon price using benchmark tightening rates that are endogenous to the model. This is informed by the recent federal discussion paper, which considers a variety of options to ensure binding benchmarks (Environment and Climate Change Canada, 2025b).
- Provincial output-based pricing system (OBPS) coverage thresholds were assumed to meet a minimum requirement of 10 kilotonnes of annual CO_2e emissions per facility and full coverage of oil and gas extraction, as is being considered by the federal government (Environment and Climate Change Canada, 2025b). In practice, however, coverage thresholds vary by province (Linden-Fraser, 2025).
- The model assumes that compliance revenue from all provinces and territories is used for funding low-carbon industrial decarbonization technologies. The model does not include any rebating of compliance payments in exchange for on-site investments in decarbonization, as is allowed in Ontario; nor does it allow facilities to comply with the policy through direct investment in decarbonization on-site, as in Alberta. We exclude these specific policy details as they can undermine the signal sent by the carbon price, and the objective of this analysis is to assess the impact of a binding carbon price.
- Because of these simplifying assumptions, the modelling results should be used primarily to understand the effects of different effective price trajectories beyond 2030, rather than evaluating the specific design of Canada's current industrial carbon price.

3.0 Key Findings

The modelling results indicate three key findings relevant for setting Canada's post-2030 carbon price trajectory.

- **Key Finding 1**: A strong and rising industrial carbon price drives new investment in clean projects and achieves significant emissions reductions with minimal economic impacts.
- **Key Finding 2**: Tightening performance standards relatively more quickly in sectors that are less exposed to international competition—such as oil and gas production—maintains strong emissions reductions while delivering better economic outcomes in terms of jobs, GDP, and net exports.
- **Key Finding 3**: While a strong and rising industrial carbon price triggers meaningful emissions reductions with minimal impacts on economic growth, achieving net-zero emissions by 2050 will only be possible if robust complementary climate policies are also in place.

Each finding is discussed in depth below.

3.1 A Strong and Rising Industrial Carbon Price Drives New Investment in Clean Projects and Achieves Significant Emissions Reductions With Minimal Economic Impacts

3.1.1 Emissions Reductions

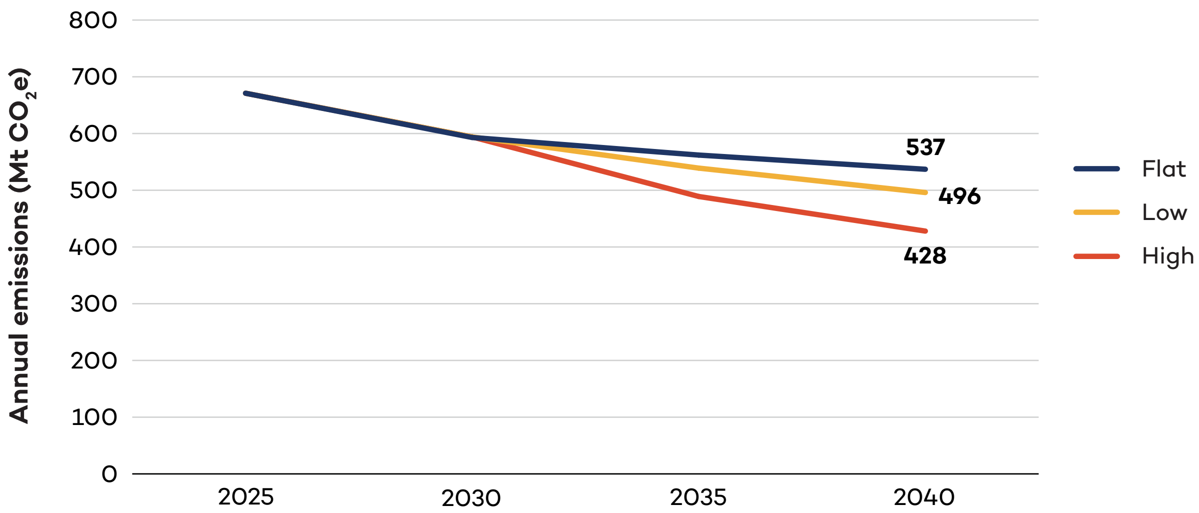
A higher carbon price results in fewer carbon emissions over time. A high industrial carbon price trajectory that reaches CAD 380 in 2040, for example, could result in Canada's annual emissions being 73 Mt CO_2e lower in 2035 and 108 Mt CO_2e lower in 2040 relative to a scenario where the price is kept constant at CAD 130 from 2030 onwards (Figure 2). The reductions in 2040 alone are equivalent to avoiding the emissions from almost all road transportation in Canada in 2024 (Environment and Climate Change Canada, 2026, p. 11).

These emissions reductions would also prevent substantial economic costs in Canada and abroad by mitigating the effects of climate change. For example, using the social cost of carbon as estimated by the federal government (Government of Canada, 2023),[5] reducing Canada's emissions by 108 Mt CO_2e in 2040 could save an estimated CAD 36.8 billion globally in climate-

[5] The government of Canada estimates the social cost of carbon to be CAD 341/t CO_2e in 2040, as expressed in real CAD 2021.

related damages that year.[6] Note that these are the economic losses avoided in only 1 year (2040). The total economic damages from climate change avoided by adopting a stronger carbon price would therefore be far greater than indicated above, as the emissions reductions in each year between 2030 and 2040 would need to be taken into account.[7]

Figure 2. Emissions in different price scenarios



Source: Author's analysis, using data from IISD and Navius Research Inc., 2026.

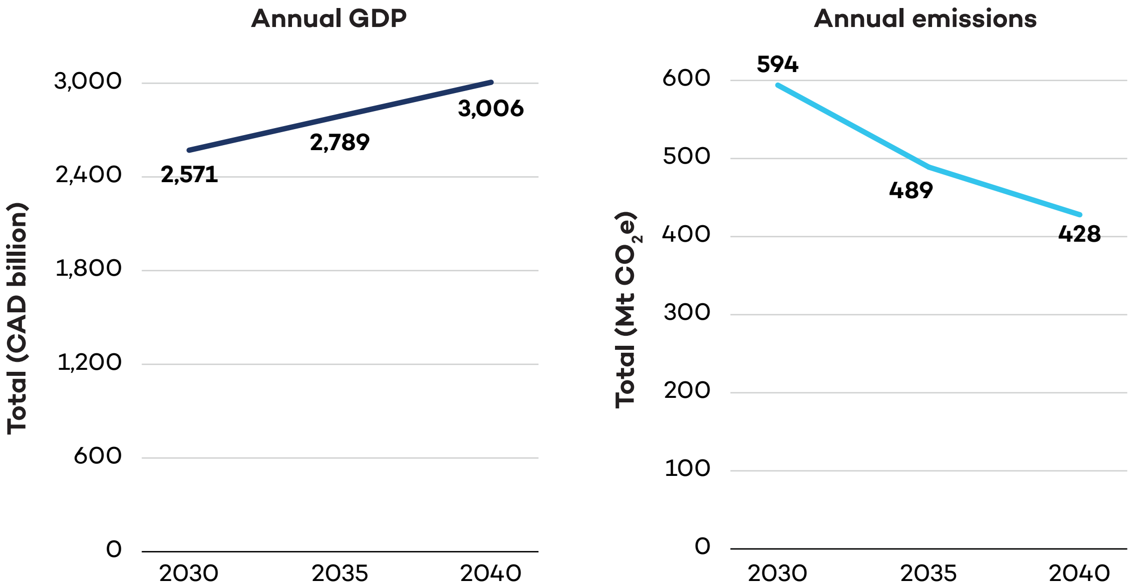
3.1.2 Economic Impacts

Industrial carbon pricing is a highly efficient policy tool for achieving emissions reductions at low costs. Even in a high-price scenario, the Canadian economy continues to grow in every year studied (Figures 3, 4), although at a slightly slower rate. For example, total GDP in 2040 is 0.49% lower than it would be with a flat carbon price, and the number of full-time equivalent jobs in 2040 is less than 0.2% lower. Compare this to GHG emissions (Figure 3), which are 20% lower in 2040 relative to a flat-price scenario, emphasizing the economic efficiency of the policy. Therefore, while these economic impacts should not be overlooked, nor should they be overstated.

[6] Note that this calculation does not consider the impacts of carbon leakage and that the social cost of carbon is uncertain. This calculation is therefore only intended to be illustrative of the extent to which reduced emissions in Canada can avoid economic damages associated with carbon pollution.

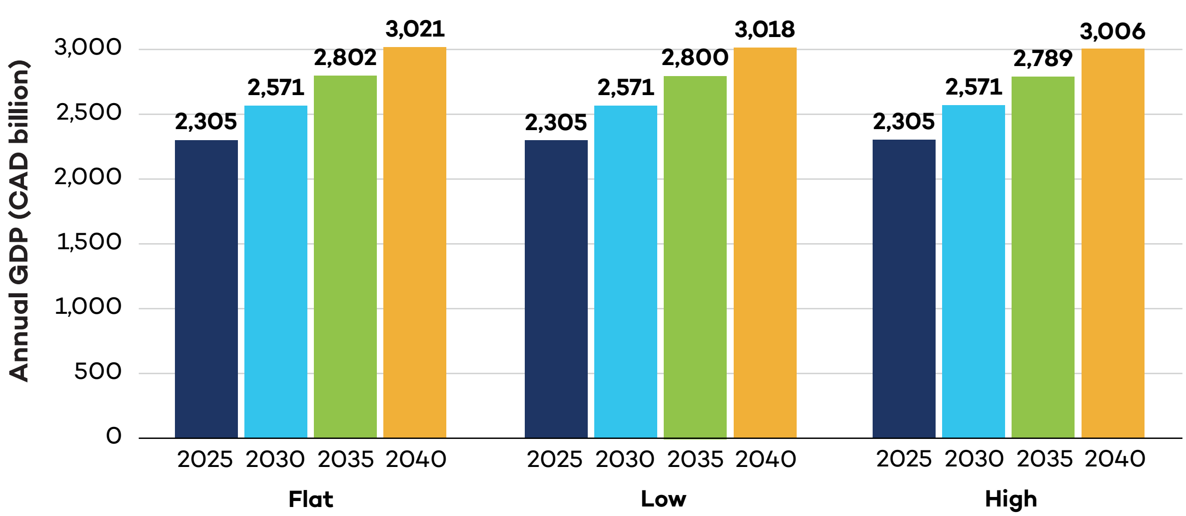
[7] Note that IISD does not have this information available, as the modelling results are only reported for the years 2025, 2030, 2035, and 2040.

Figure 3. Emissions vs GDP: High-price scenario



Source: Author's analysis, using data from IISD and Navius Research Inc., 2026.

Figure 4. GDP growth continues in all price scenarios, with only minimal impacts from higher prices



Source: Author's analysis, using data from IISD and Navius Research Inc., 2026.

These economic impacts should also be considered in context to inform an optimal policy pathway. Most importantly, the economic costs of carbon pollution are already apparent, and they will likely dwarf the economic impacts of a stronger carbon price going forward. For example, modelling from the Canadian Climate Institute (Sawyer et al., 2022, p. 6) estimated the following:

> In 2025, Canada will experience $25 billion in losses relative to a stable-climate scenario, which is equal to 50 per cent of projected 2025 GDP growth. The mounting costs compound quickly over the years and decades ahead, rising to $78 and $101 billion annually by mid-century for a low and high emissions scenario, respectively.

These macroeconomic losses also have a direct impact on workers, with the job losses associated with climate change potentially reaching 500,000 by 2050 (Sawyer et al., 2022). Similarly, Environment and Climate Change Canada highlights that uninsured losses related to severe weather in Canada "routinely exceed $3 billion annually," with uninsured losses estimated to be even greater (Environment and Climate Change Canada, 2026, p. 2). Total economic losses related to climate change could, moreover, reach nearly 6% of Canada's GDP by the end of the century (Environment and Climate Change Canada, 2026, p. 2).

Another category of economic damage not captured in the model is the long-term loss of competitiveness of Canadian industrial exporters if they fail to decarbonize. Embedded carbon in traded goods is increasingly an element of global competitiveness. Jurisdictions such as the European Union, the United Kingdom, and Norway have announced or implemented carbon pricing at the border, and more are considering following suit (Bonnet & Baršauskaitė, 2025). Private sector demands for low-carbon production increasingly go back up the value chain to industrial products. As examples, consider the rapid increase in steel sector "green" standards (World Trade Organization, 2022) and the roughly two thirds of Canadian Montney gas production that has paid for certification under environmental and social sustainability labels (Personal communication with Jason Switzer, CEO of Equitable Origin, April 21, 2026). Investors, too, are increasingly conscious of the carbon risk of firms in which they invest (Basse Mama & Mandaroux, 2022; Bolton & Kacperczyk, 2021).

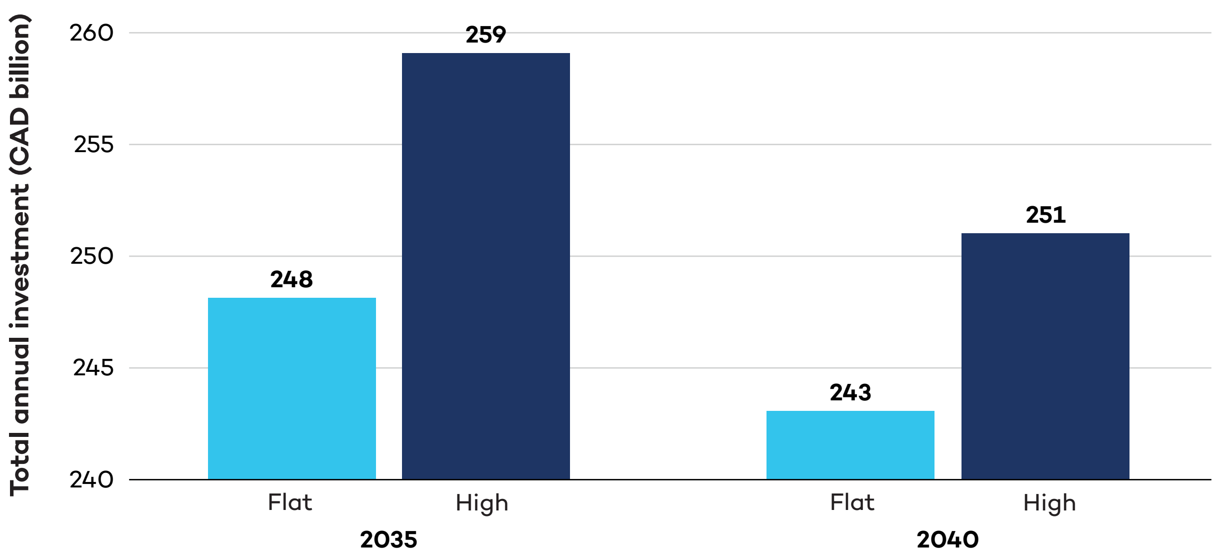
If low-carbon production is a necessary element of competitiveness in the growing green markets of the future, and carbon pricing is the most effective tool to incentivize industrial decarbonization, then a meaningful carbon price is critical to the continued competitiveness of key Canadian exporting sectors such as steel, aluminum, fertilizers, and cement.

Simply put, ignoring the need to reduce emissions is not a viable economic strategy. Canada's policy mix should instead prioritize emissions reductions while simultaneously accounting for the economic impacts of the transition. This could mitigate the economic, social, and environmental impacts of carbon pollution while ensuring that the necessary economic transitions occur with minimal disruption to households, communities, and businesses.

3.1.3 Investment

A higher carbon price also comes with economic benefits. For example, a high price drives CAD 11 billion in additional investments across Canada's economy in 2035 and CAD 8 billion in additional investment in 2040 (relative to the flat-price scenario) (Figure 5). This equates to annual investment being 4.5% higher in 2035 and 3% higher in 2040. The increase in investment is likely because a higher price signal incentivizes investment in decarbonization solutions for existing industries as well as clean projects across growing industries going forward. This logic is already evident with Canada's current industrial carbon price, which supports over 70 new projects across Canada worth an estimated CAD 57 billion in investment (Linden-Fraser, 2025). A higher carbon price set out on a clear trajectory beyond 2030 can therefore amplify these incentives further.

Figure 5. A high carbon price results in greater annual investment



Source: Author's analysis, using data from IISD and Navius Research Inc., 2026.

3.1.4 Comparing Price Trajectories: High vs low

A low-price trajectory—one that reaches CAD 230/t CO_2e in 2040—could have near-negligible economic impacts relative to a flat-price scenario. Specifically, the total impact on GDP of a low-price trajectory with competitiveness adjustments relative to a flat price without competitiveness adjustments would be around 0.04% in 2035 and 0.02% in 2040. In this case, however, total emissions reductions are weaker than in the high-price scenario. Annual emissions would be 18 Mt CO_2e lower in 2035 (3%) and 38 Mt CO_2e lower in 2040 (7%). While still significant, these reductions are far weaker than what could be achieved in the high-price scenario (73 Mt CO_2e in 2035 and 108 Mt CO_2e in 2040).

Considering these weaker emissions reductions, meeting Canada's climate targets with a low carbon price may require an overemphasis on less efficient—i.e., more costly—policy tools. In this case, achieving the same level of emissions reductions would entail higher compliance costs across the economy. While our modelling results do not assess such an alternative policy mix directly, the general point is implicit, given that industrial carbon pricing is one of the most efficient policy mechanisms available to reduce industrial emissions (Allan et al., 2024; Dimanchev & Knittel, 2023; Döbbeling-Hildebrant et al., 2024; Metcalfe, 2021; Venmans et al., 2020). The high-price scenario, therefore, is likely to be more consistent with efficiently meeting Canada's legislated climate targets.

3.2 Tightening Performance Standards Relatively More Quickly in Sectors That Are Less Exposed to International Competition—Such as Oil and Gas Production—Maintains Strong Emissions Reductions While Delivering Better Economic Outcomes in Terms of Jobs, GDP, and Net Exports

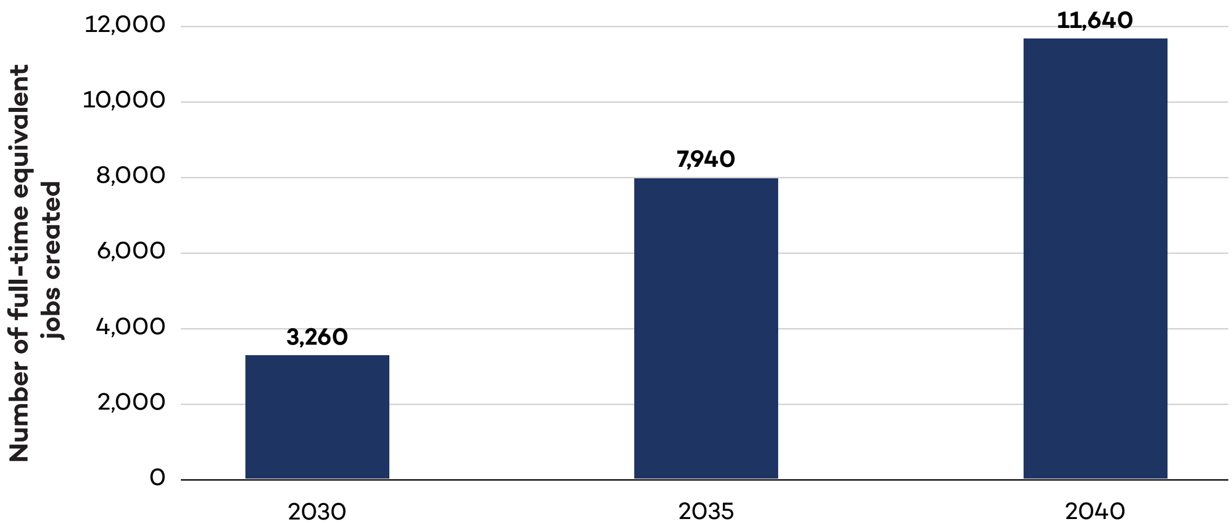
3.2.1 Differentiated Tightening Rates for Performance Standards

In Canada's output-based pricing systems, performance standards determine the allowable emissions levels for facilities in each sector. Facilities pay for their emissions above the relevant emissions-intensity threshold and earn credits if their emissions fall below it (Linden-Fraser, 2025). The result is that while each tonne of carbon is worth the full carbon price at the margin, the total cost is low, protecting facilities from a loss of competitiveness.

Currently, performance standards are "tightened" (in other words, the emissions-intensity threshold is lowered) annually at similar rates for all sectors (at the federal policy level, the rate is set at 1% or 2% in most cases). Different sectors, however, face different competitiveness risks, and this could be better reflected in the tightening rates of performance standards. For example, Canada's oil and gas sector is, on average, sheltered from international competition due to factors including high profit margins and fixed infrastructure between producers and refineries (Allan et al., 2024). Meanwhile, industries such as steel and cement face greater competitiveness pressures and therefore have less capacity to absorb higher policy costs (Allan et al., 2024).

By tightening performance standards more rapidly for sectors that are less vulnerable to lost competitiveness and less rapidly in sectors that are more vulnerable industrial carbon pricing can drive emissions reductions more efficiently. For example, in our high-price scenario that reaches CAD 380/t in 2040, greater differentiation in tightening rates results in almost 12,000 more full-time equivalent jobs (Figure 6), CAD 2.6 billion more in GDP, and over CAD 1 billion more in net exports that year. This comes with almost no impact on total annual emissions, which are only 1 Mt CO_2e higher in 2035 and remain unchanged in 2040. Moreover, the economic benefits of competitiveness-adjusted tightening rates are present in all price scenarios, although with a slight relative increase in GHG emissions in the flat and low-price scenarios. Making competitiveness adjustments to the tightening rates applied in Canada's industrial carbon price could therefore increase the policy's economic efficiency without sacrificing environmental effectiveness—especially in a high-price scenario.[8]

Figure 6. Net increase in jobs after adjusting tightening rates in high-price scenario



Source: Author's analysis, using data from IISD and Navius Research Inc., 2026.

3.2.2 Other Design Elements

Other policy design factors to consider that were not directly tested here include alternative revenue recycling options, broadening the scope of coverage to include smaller industrial emitters, restricting the use of low-quality carbon offsets, and harmonizing rules to facilitate inter-provincial credit trading. These design features may be crucial to maximize emissions reductions and optimize economic outcomes (Frank et al., 2025; Lachetti et al., 2026). Therefore, while the current modelling results do not directly inform these recommendations, they should be actively considered along with the post-2030 price trajectory to ensure the policy's effectiveness in practice.

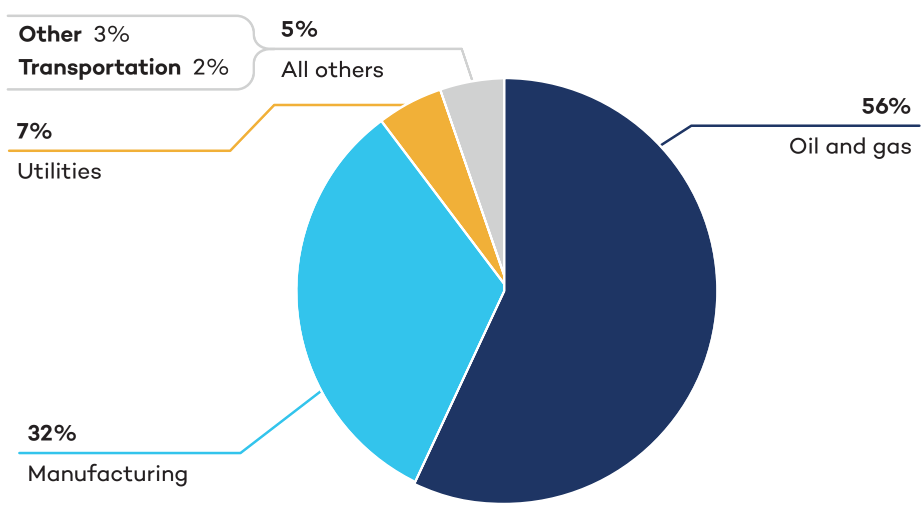
[8] The tightening rates for performance standards that apply in the model can be found in the full data set at International Institute for Sustainable Development and Navius Research, 2026.

3.3 While a Strong and Rising Industrial Carbon Price Triggers Meaningful Emissions Reductions With Minimal Impacts on Economic Growth, Achieving Net-Zero Emissions by 2050 Will Only Be Possible if Robust Complementary Climate Policies Are Also in Place.

3.3.1 Emissions Reductions in Non-Industrial Sectors

Canada's industrial carbon price applies only to large industrial emitters and, as such, does not drive significant emissions reductions in non-industrial sectors. For example, almost 90% of emissions reductions achieved in 2040 by a high industrial carbon price (relative to the flat-price scenario) occur in manufacturing and oil and gas sectors (Figure 7). Even a strong industrial carbon price, therefore, does not effectively mitigate emissions from transportation, agriculture, buildings, and waste, which together accounted for more than half of Canada's national emissions in 2024 (Environment and Climate Change Canada, 2026, p. 5). While the limited scope of industrial carbon pricing is by design, it clearly precludes the idea that industrial carbon pricing alone can achieve Canada's climate targets. Complementary policies will be needed to ensure emissions fall across all economic sectors.

Figure 7. Emissions reductions by sector in high-price scenario



Source: Author's analysis, using data from IISD and Navius Research Inc., 2026.

3.3.2 Emissions Reductions in Industrial Sectors

Even within industrial sectors, there is a clear role for complementary policy to support emissions reductions. First, a key predictor of favourable economic and environmental outcomes associated with a higher carbon price is the assumed cost of clean technologies such as renewable power generation. For example, in the high-price scenario, a sensitivity case with lower clean technology costs reduces annual emissions by a further 60 Mt CO_2e in 2040 while adding over CAD 40 billion dollars to national GDP in 2040. Simply put, when clean technology costs less, an industrial carbon price becomes even more effective. This clearly indicates the value of complementing industrial carbon pricing with a green industrial policy that reduces the cost of clean technologies (see also Jakob & Overland, 2024; Southin et al., 2025).

Second, the modelling results highlight that repealing or weakening existing climate policies (clean fuel regulations, methane regulations, and clean electricity regulations) undermines national climate goals with no clear economic benefit. In the policy rollback scenario, annual emissions are 26 Mt CO_2e higher in 2030—most notably due to the 5-year delay to methane regulations in the oil and gas sector. In 2035 and 2040, the difference in annual emissions varies depending on the carbon pricing trajectory, but ranges between 5 Mt CO_2e and 16 Mt CO_2e. The relative emissions benefit of the complementary policies modelled reduces as the industrial carbon price increases, but is never zero. Meanwhile, rolling back these climate policies has a slight negative impact on total GDP and return to capital investments, offset by a slight positive impact on jobs. While always small, these economic effects become more noticeable as the carbon price increases.

4.0 Recommendations

Based on these findings and complementary research, we recommend that the federal government take the following steps:

1. Adopt a National Carbon Price Trajectory That Is Significantly Stronger Than the Trajectory Announced in the Recent Canada–Alberta Implementation Agreement.

These modelling results clearly indicate that a strong and rising carbon price reaching as much as CAD 380/t CO_2e in 2040 can achieve substantial emissions reductions with minimal economic impacts. That said, the specific price trajectory should be determined by the government after further study with a view to maximizing emissions reductions in the period between 2030 and 2040, maintaining industrial competitiveness, and setting industry up to achieve net-zero emissions by 2050, as required by Canada's legislated commitments. This trajectory should articulate the minimum effective carbon price and the headline price that must be respected across all provincial and territorial systems.

2. Increase the Share of Emissions for Which Facilities Pay the Carbon Price, With a Faster Rate of Increase for Sectors That Face Less Competitiveness Risk.

These modelling results confirm an intuitive point: since sectoral performance standards are tools to prevent loss of competitiveness in the face of carbon pricing, they should be tighter (i.e., offer less protection) for sectors that face less competitiveness risk. Differentiating the sector-specific tightening rates for performance standards in line with real-world competitiveness risks maintains strong emissions reductions while achieving better economic outcomes in terms of jobs, GDP, and net exports. Such adjustments to sector-specific tightening rates should be based exclusively on robust assessments of competitiveness risks, and these assessments should be made public in the interest of transparency.

3. Support Canada's Industrial Carbon Price With Complementary Policies.

The modelling results make clear that Canada's industrial carbon price cannot achieve national climate goals on its own. Complementary policies will be needed to amplify emissions reductions within industrial sectors, drive additional reductions in non-industrial sectors, and help minimize the economic impacts of a rising carbon price. Such complementary policies should include

- green industrial policy to support decarbonization in legacy sectors such as steel and cement, while helping grow sectors of the future such as electric vehicle value chains and mass timber. (Jakob & Overland, 2024; Southin et al., 2025). One of the key results of such policies would be to lower the costs of adopting clean technologies—an outcome that the modelling shows would significantly boost the impact at any level of carbon price.
- measures to support communities in the coming energy transition. This suite of policies to support a "just transition" should include logistical, training, and financial support for

workers transitioning between professions, direct investment in affected communities, and social supports such as early retirement programs (Zinecker et al., 2018, p. 14).

- limiting public finance in high-emissions and high-risk industries such as new fossil fuel development. An effective industrial carbon price disincentivizes highly polluting activities, whereas fossil fuel subsidies do the opposite. Phasing out fossil fuel subsidies helps ensure that the carbon price signal is strong and maximizes emissions reductions. Importantly, Canada has already committed to phasing out inefficient fossil fuel subsidies in recognition of the need to transition away from this high-risk and polluting sector, but this commitment has not yet been fully implemented (Cameron & Parenteau, 2025). Public financing instead should be closely aligned with the green industrial strategy noted above.
- driving further emissions reductions across all sectors. To meet Canada's climate targets, it will be essential to adopt targeted policies such as (but not limited to): increased support for electric vehicles and electrified public transit infrastructure (Haig, 2025b); rapidly expanding the national electricity grid and renewable energy capacity (Haig, 2024); and modernizing building codes and supporting the rollout of heat pumps (Rempel, 2025).

Canada's industrial carbon price is well-positioned to lead Canada's emissions reductions for years to come, but reaching the country's climate goals will require the price to be significantly strengthened. A more ambitious trajectory beyond 2030, rapid and differentiated tightening rates for performance standards, and complementary policies will be essential to maximize emissions reductions while managing a smooth transition to a cleaner economy.

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