PEMBINA institute

Putting a price on carbon pollution across Canada

Taking stock of progress, challenges, and opportunities as Canada prepares its national carbon pricing benchmark

May 2017

Summary

The federal government will soon release a consultation paper containing technical details on the proposed federal carbon pricing backstop mechanism, and later this year will enact legislation to create a national carbon pricing benchmark. Now is the time to ensure this proposed approach results in important emissions reductions and supports Canada's transition to a clean growth economy.

Carbon pollution pricing is a critical tool to promote clean growth in Canada. The Pan-Canadian Framework on Clean Growth and Climate Change, finalized in December 2016, contained a commitment to implement a national benchmark for carbon pricing to be met by all provinces and territories by 2018. This commitment builds on provincial-led progress to implement regionally tailored carbon pricing systems.

This backgrounder outlines the current state of carbon pricing policies in Canada, both federally and provincially, and makes recommendations on how to ensure the new national benchmark approach is successful.

In brief, we recommend the following:

1. The federal benchmark, at a minimum, provide **guidance on treatment of EITE sectors** and the **protection of vulnerable Canadians**.
2. Any EITE treatment be designed to **minimize carbon leakage** and competitiveness impacts.
3. The federal benchmark require as **broad coverage** as is accurately measurable.
4. The federal government **make clear the terms of the 2020 carbon pricing review**.
5. The national benchmark stipulate that cap-and-trade systems must have a cap decline rate in line with a 30% reduction below 2005 levels by 2030. Further, that it stipulate that cap decline rates be **at least as stringent as projected in the reference case** for each jurisdiction.
6. The federal government ensure that **carbon pricing and other climate policies are reviewed collectively and often**, as per Canada's obligations under the Paris Agreement, to ensure that Canada is on track to achieve its carbon pollution reduction goals.
7. The national carbon pricing benchmark be **indexed to inflation**. Further, that the federal government begin laying groundwork for **carbon price increases out to 2030**.

1. Introduction

Canada is in the midst of designing a national approach to carbon pricing. In October 2016, Prime Minister Justin Trudeau announced that all provinces and territories must have a price on carbon by 2018 — and that jurisdictions could implement regionally-tailored policies to achieve this objective, so long as programs adhered to a series of minimum standards. 86% of Canada's population is already covered by a carbon price, and this number will rise to 100% by 2018 under the benchmark.

This is welcome news. The risks climate change poses to Canada's economy have never been more profound: Julie Gelfand, Canada's Commissioner of the Environment and Sustainable Development, has estimated that the federal government spent more on recovering from large-scale natural disasters between 2009 and 2015 than in the previous 39 fiscal years combined.[1] Moreover, the Government of Canada has brokered a new conversation with provinces and territories on policy measures to reduce Canada's national emissions.

Carbon pricing is an economically efficient policy tool to address rising levels of accurately measurable sources of carbon pollution. Indeed, this fiscal policy approach has emerged as a keystone element of climate policy at the provincial level in Canada. Carbon pricing has a long track record in B.C., where it has been successful at reducing emissions while growing a strong economy,[2] and has more recently been adopted by Québec, Ontario, and Alberta. These provincial efforts have now been solidified by a national commitment to introduce a two-track benchmark as a central element of the Pan-Canadian Framework on Clean Growth and Climate Change (PCF). This measure, in combination with other important climate policy measures contained within the PCF, position Canada to be a beacon of climate progress to the world, and will help establish Canadian industries as competitors in a low-carbon global economy.

A successful national approach to carbon pricing will support Canada's economic and climate goals — and it will also likely have an impact beyond our borders, as other countries work to implement climate plans to comply with the Paris Agreement and look to peer jurisdictions for policy guidance. Canada is not alone in its effort to price carbon pollution: according to the World Bank, carbon pricing initiatives have tripled over the past decade, with policies now spanning nearly a quarter of global emissions. And this trend is only expected to continue, with

[1] Office of the Auditor General of Canada, *2016 Spring Reports of the Commissioner of the Environment and Sustainable Development*, Report 2, Exhibit 2.1 (2016). http://www.oag-bvg.gc.ca/internet/English/parl_cesd_201605_02_e_41381.html

[2] Brian Murray and Nicholas Rivers, *British Columbia's Revenue Neutral Carbon Tax: A Review of the Latest 'Grand Experiment' in Environmental Policy*, NI WP 15-04 (Duke University, 2015). https://nicholasinstitute.duke.edu/sites/default/files/publications/ni_wp_15-04_full.pdf

2017 potentially representing the first year in history where carbon pricing programs are in place across five continents.[3]

Despite important steps forward in the last few months, progress should not be taken for granted. Indeed, as provinces and territories wrestle through implementation of carbon pricing systems, real challenges are emerging that require thoughtful solutions. Implementation of the national carbon pricing benchmark represents a significant opportunity to build a stronger economy across the country and to better coordinate sub-national policies to address these challenges.

The federal government will soon release a consultation paper containing the technical details of the proposed federal carbon pricing backstop mechanism, and later this year it will enact legislation to create a permanent national carbon pricing benchmark. Now is the time to ensure this proposed approach results in important emissions reductions and supports Canada's transition to a clean growth economy.

2. Background: proposed national benchmark design

The national carbon pollution pricing benchmark outlined in the PCF would create a carbon price "floor" — starting at $10 per tonne of carbon dioxide equivalent (t-CO_2e) in 2018 and increasing annually by $10/t-$CO_2$e until it reaches $50/t-$CO_2$e in 2022. This price floor will exceed all existing provincial carbon pricing schedules after the year 2020.

By 2018, all provinces and territories must have a carbon pricing system in place. Subnational governments can comply with the federal requirement by either establishing a carbon tax that meets or exceeds the federal schedule, or by implementing a cap-and-trade system where the cap decline rate equals 30% below the 2005 level by 2030 (i.e. equivalent to Canada's nationally determined contribution via the Paris Agreement).[4] Treatment of hybrid "tax-trade" systems (i.e Alberta's pricing approach) has not been specifically defined.

If a subnational jurisdiction does not have a carbon pricing system in place by 2018 that meets or exceeds the national benchmark, the federal government will apply its model carbon tax in that jurisdiction. All revenue collected by the federal government would be returned to that jurisdiction. This revenue can be used in a variety of ways at the discretion of the region — a key tenet of the federal framework.

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[3] World Bank, Ecofys, and Vivid Economics, *State and Trends of Carbon Pricing 2016* (World Bank, 2016), 29. doi:10.1596/978-1-4648-1001-5

[4] Government of Canada, *Canada's INDC submission to the UNFCCC* (2016). http://www4.unfccc.int/ndcregistry/PublishedDocuments/Canada%20First/INDC%20-%20Canada%20-%20English.pdf

3. Program design: key issues to consider

Through its legislation to enshrine a national carbon pricing benchmark, the federal government has an opportunity to learn from existing best practices at the provincial level and to provide directional support to provinces and territories on how effective carbon pricing systems should be designed. In doing so, we recommend the federal approach address the following six key issues:

1. Addressing competitiveness concerns

Well-designed carbon pricing systems can ensure industries and economies are more, not less, competitive in the long-run. Identifying and mitigating real competitive disadvantages that could result in carbon leakage should be a priority for national and sub-national governments in order to ensure carbon pricing meets both carbon reduction and economic growth objectives. According to the Ecofiscal Commission, 5% of Canada's GDP could be more exposed to competitiveness impacts if Canada has a higher price than jurisdictions with whom it trades. In some provinces, this number is higher than average (i.e 18% in both Alberta and Saskatchewan).[5] Although only a small percentage of Canada's overall economy could be adversely affected, these competitiveness issues should be addressed though the design of the pricing framework. In our view, systems that are well designed will adhere to the following principles:

1. *Maintain the incentive to reduce carbon pollution:* Any measures taken to address competitiveness concerns with respect to carbon pricing for emissions-intensive, trade-exposed (EITE) sectors should maintain the incentive to reduce pollution.
2. *Be targeted:* Mitigation measures should only apply to EITE sectors that may have material competitiveness and/or profit impacts due to carbon pricing policy.
3. *Be transparent:* Any support for EITE sectors should be justified by data and analysis.
4. *Be consistent:* The broad framework for assessing and addressing EITE competitiveness issues should be consistent across sectors and firms.
5. *Be temporary:* Any support should be transitional in nature and be phased out when carbon pricing and/or regulatory equivalency with other jurisdictions is achieved.

[5] Canada's Ecofiscal Commission, *Provincial Carbon Pricing and Competitiveness Pressures* (2015). http://ecofiscal.ca/wp-content/uploads/2015/11/Ecofiscal-Commission-Carbon-Pricing-Competitiveness-Report-November-2015.pdf

6. *Be simple:* Any EITE mechanism should be simple to implement, administer, and comply with.[6, 7, 8]

Furthermore, impacts on competitiveness and the potential for carbon leakage arise only when differences in carbon pricing regimes exist between regions with competing economic sectors. Care must be taken to correctly identify when carbon pricing policies are creating carbon leakage risks. With 23% of the global economy covered by or developing a price on carbon pollution, it's clear that Canada is not alone in implementing carbon pricing policies. China has already piloted cap-and-trade in five provinces and two cities, making it the second largest carbon market in the world. And later this year, China will debut a national cap-and-trade system that's poised to become the world's largest carbon market.[9] Further, the European Union and some U.S. states (California, New York, Vermont, and Massachusetts, among others) all have carbon pricing systems in place. In fact, as of 2016, the World Bank estimates that 40 national jurisdictions and more than 20 cities, states, and regions are putting a price on carbon. These jurisdictions include seven out of the world's 10 largest economies and are collectively responsible for nearly 25% of global carbon pollution.[10]

2. Ensuring vulnerable Canadians are not unfairly impacted

A well-designed carbon price can address issues of fairness and protect vulnerable citizens, including low-income Canadians, remote Indigenous communities, and remote northern communities. While carbon pricing has been shown to be one of the most effective and efficient ways to reduce carbon pollution, care must be taken to ensure that the carbon pollution pricing system put in place in each province or territory does not adversely impact vulnerable populations by exacerbating difficult economic circumstances.

There are several mechanisms already in place at the provincial level that attempt to safeguard against this outcome: B.C.'s carbon tax is offset by a cut in personal income tax and provides an additional low-income tax credit and a specific benefit for rural households; Alberta's carbon levy and rebate system provides rebates to lower- and middle-income people to protect those who spend proportionally more of their income on energy costs; Ontario will provide incentives to facilitate commercial and residential energy conservation and will invest in social housing

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[6] Climate Leadership Team, *Recommendations to Government* (2015). http://engage.gov.bc.ca/app/uploads/sites/116/2015/11/CLT-recommendations-to-government_Final.pdf

[7] Canada's Ecofiscal Commission, *Provincial Carbon Pricing and Competitiveness* (2015).

[8] B.C. EITE Roundtable discussions (2016).

[9] Edward Wong, "China Wants to Be a Climate Change Watchdog, but Can It Lead by Example?" (New York Times, January 10, 2017). https://nyti.ms/2kuj7oA

[10] World Bank, Ecofys, and Vivid Economics, *State and Trends of Carbon Pricing 2016* (World Bank, 2016).

retrofits; and Québec is investing in public transit and other infrastructure to reduce its emissions.

Regardless of the mechanism, the federal government should establish within its model legislation best practice provisions to ensure that vulnerable Canadians are protected from any potential increase in expenses that may arise from a price on carbon pollution. At a minimum, carbon pricing approaches must not be regressive. The federal government should consider including an assessment of the efficacy of each jurisdiction's approach to protecting vulnerable low-income and remote northern communities in its 2020 review.

3. Ensuring broad and accurate coverage

The proposed pan-Canadian carbon price recognizes that economic and industrial structures varies considerably across the country, with different regions facing different challenges and opportunities to reduce emissions. As such, subnational governments can comply with the federal requirement by either establishing a carbon tax or by implementing a cap-and-trade system.

In both cases, the federal government has stipulated that a subnational carbon pricing system's coverage must match or exceed B.C.'s approach. B.C.'s carbon tax applies to most sources of combustion emissions, but excludes vented and fugitive process emissions. B.C.'s carbon tax was limited to combustion in 2008 when the carbon tax was first introduced because combustion emissions were the only source accurately measurable. Since then, measuring procedures and technologies have improved and the scope of B.C.'s carbon tax should no longer be seen as the highest achievable standard. Currently, B.C.'s program covers approximately 70% of its total carbon pollution, but could likely be expanded by up to 10% based on new measurement technology.

The exact percentage of emissions covered in other jurisdictions using this approach will vary. For example, Pembina Institute calculations demonstrate that a "combustion only" approach would cover more than 80% of New Brunswick's carbon pollution, but would cover less than 65% of emissions in Saskatchewan, and less than 60% of emissions in Manitoba.[11] The federal benchmark should require as broad coverage as is accurately measurable. Further, the benchmark should be updated periodically as new technologies and reporting procedures make accurately quantifying new sources of emissions viable.

[11] Environment and Climate Change Canada, *National Inventory Report 1990-2014: Greenhouse Gas Sources and Sinks in Canada* (2016). http://donnees.ec.gc.ca/data/substances/monitor/national-and-provincial-territorial-greenhouse-gas-emission-tables/C-Tables-IPCC-Sector-Provinces-Territories/?lang=en

4. Establishing price certainty post-2022

The current benchmark sees increases in the price on carbon pollution of $10 per tonne per year from 2018 to 2022. Modelling of Canada's current federal and provincial climate policies, including the federal carbon price floor, shows that while the policies reduce emissions, they do not achieve the reductions necessary to meet Canada's 2030 climate targets.[12] In order to close the gap to 2030, and to ensure Canada's economy is on a mid-century decarbonization trajectory, increases in the level of ambition of key policies and a predictable increases to the price schedule are key.

A predictable schedule of increases from 2022 to 2030 will also be necessary to provide the economic certainty needed to drive innovation in the clean economy and to keep Canada on track to meet its emission reduction goals.[13] In the short term, we recommend the national price legislation ensure the benchmark be indexed to inflation, since this will result in a stronger price signal to the market over time. The Western Climate Initiative (WCI) cap-and-trade program already indexes its price to inflation, so there is precedent for this within the existing provincial pricing landscape. The B.C. carbon tax is not indexed to inflation.

5. Ensuring incremental carbon pollution reductions

Carbon pricing systems should increase the incentive to reduce pollution for all parts of the economy. For provinces that are expected to outperform the national 30% emissions reduction target, the carbon pricing system should still incentivize additional reductions and avoid any backsliding on "business-as-usual" reductions. For example, as discussed in the Conservation Council of New Brunswick's submission to the Government of Nova Scotia on its proposed cap-and-trade program design,[14] Nova Scotia's trajectory is likely to exceed the federal emissions reduction goal for 2030. Under the Government of Canada's proposed benchmark, Nova Scotia could increase its emissions by 18% or almost 4 Mt and still meet the minimum standard set by

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[12] *Pan-Canadian Framework on Clean Growth and Climate Change* (2016), 44. https://www.canada.ca/content/dam/themes/environment/documents/weather1/20170125-en.pdf

[13] A recent assessment from EnviroEconomics suggests that a national carbon price floor of $150/t-$CO_2$e in 2030 — in addition to full implementation of complementary measures laid out in the PCF, and ongoing credit imports under the WCI — could be sufficient for Canada to achieve its 2030 target. In this scenario, Canada's GDP would be 1.385 times larger than today's. In their words: "…the highest GDP impact of Canada reaching its NDC would mean the economy still grows by 38% between now and 2030, instead of 39% under a business as usual scenario." See: Dave Sawyer and Chris Bataille, *Policy Brief 2: The Pan-Canadian Framework on Clean Growth and Climate Change* (Decarbonization Pathways Canada, 2017). https://www.enviroeconomics.org/single-post/2017/03/31/Taking-Stock-Opportunities-for-Collaborative-Climate-Action-to-2030

[14] Louise Comeau, letter on Nova Scotia Cap and Trade Design Options Comments (Conservation Council of New Brunswick, 2017). http://www.conservationcouncil.ca/wp-content/uploads/2013/02/NScCap_TradeCommentsMarch31_2017.pdf

the federal government. Therefore the model legislation should stipulate that cap-and-trade systems must have a cap decline rate at least in line with a 30% reduction below 2005 levels by 2030. Further, cap decline rates should also be set to be at least as stringent as projected "business-as-usual" emissions reductions in the reference case for each jurisdiction.

6. Ensuring effective federal-provincial-territorial reviews

According to the Pan-Canadian Framework on Clean Growth and Climate Change, federal, provincial, and territorial governments are expected to review the overall national benchmark approach by early 2022 to "confirm the path forward, including continued increases in stringency."[15] The review will account for progress and actions taken by other countries, and will also recognize the role of Internationally Transferred Mitigation Outcomes (ITMOs — permits or credits imported from other countries) to support Canada's ambition to meet or exceed its obligations under the Paris Agreement.[16] This review will include an expert assessment of the stringency and effectiveness of carbon pricing systems across country, and will also take stock of international progress on carbon pricing.[17]

Prior to this, an interim review will be conducted in 2020 to assess compliance and outcomes in each sub-national jurisdiction as new and/or more stringent carbon pricing regimes are introduced. This review will evaluate existing carbon pricing approaches and determine best practices to manage undue competitiveness impacts to EITE sectors.[18]

The 2020 interim review will be a key opportunity to confirm the effectiveness of Canada's approach to carbon pricing, and should result in continued momentum on carbon pricing. While specific details regarding the terms and scope of this review have yet to be determined, a few things are clear: the review will need a transparent framework by which to fairly and accurately assess the progress that has been made to comply with the national benchmark, and the First Ministers will need to determine whether this review is also meant to assess overall levels of effort and success at reducing carbon pollution in each jurisdiction.

We encourage the federal government to design a transparent framework prior to the 2020 review, in consultation with the provincial and territorial governments, that would facilitate a productive discussion on environmental and economic outcomes by First Ministers. 2020 is not

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[15] Government of Canada, Pan-Canadian Approach to Pricing Carbon Pollution (2016). http://news.gc.ca/web/article-en.do?nid=1132169&wbdisable=true

[16] Aaron Wherry and David Cochrane, "Plan to meet or exceed Canada's 2030 climate change target to be signed on Friday," (CBC News, 2016). http://www.cbc.ca/news/politics/climate-change-deal-premiers-prime-minister-1.3886426

[17] *Pan-Canadian Framework on Clean Growth and Climate Change* (2016).

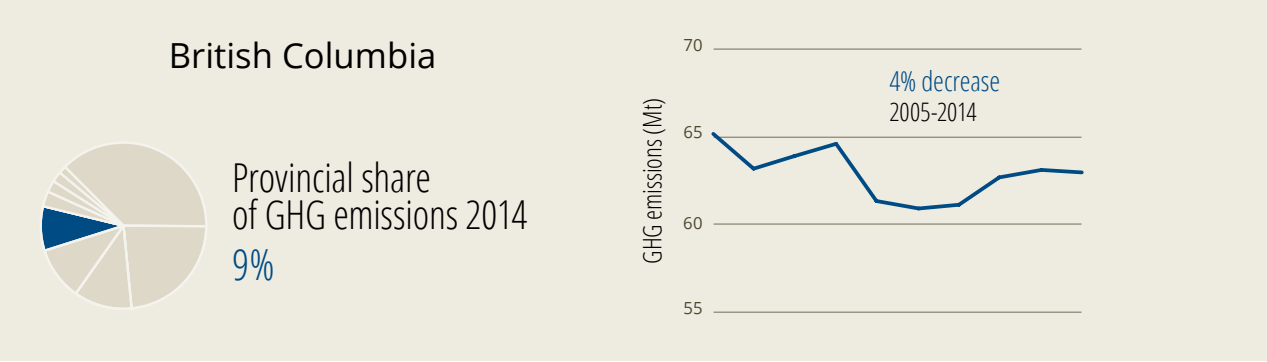
[18] *Pan-Canadian Framework on Clean Growth and Climate Change*, 46.

far off, and the methodologies for this review must be developed well in advance in order to facilitate a meaningful dialogue between governments.

4. Provincial and territorial snapshots

The 2017 National Inventory Report shows that Canada's carbon pollution totalled 722 megatonnes (Mt) in 2015 — only 2% below the 2005 level of 738 Mt, and an increase of 18% above 1990's level.[19] At present, Canada is on track to achieve neither its 2020 emissions reduction goal under the Copenhagen Accord, nor its 2030 climate target. Environment and Climate Change Canada modelling produced at the end of 2016 demonstrates that Canada has a 44 Mt gap to the 2030 target, even with all PCF policies in place.[20] A complementary modelling effort (published March 2017) that scales PCF policy ambition out to 2030 — including a national carbon price ranging from $100 to $150 that year — suggests Canada may be on a trajectory to shrink this gap by an additional 15 Mt. This would bring the country within striking distance (29 Mt) of the 2030 target, but the result depends on policies being implemented quickly, ambition being increased over time, policy overlap being avoided, and federal-provincial-territorial coordination being prioritized.[21] Regardless of the estimated size of the gap, ensuring all provinces and territories comply with the national price benchmark is critical to Canada's long-term climate objectives.

What follows is a brief snapshot of the state of carbon pollution pricing policy in each jurisdiction in Canada.



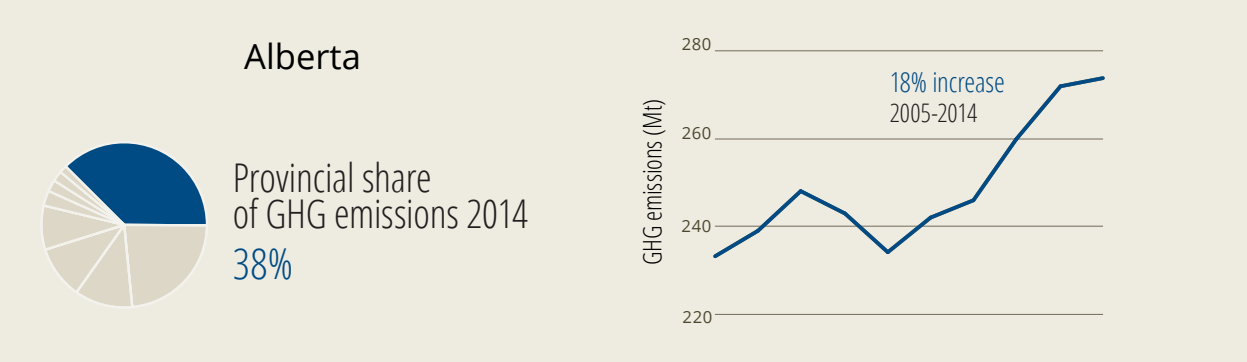
- The B.C. carbon tax was announced and took effect in 2008.

[19] Environment and Climate Change Canada, *National Inventory Report 1990-2015: Greenhouse Gas Sources and Sinks in Canada* (2017). http://www.ec.gc.ca/ges-ghg/default.asp?lang=En&n=662F9C56-1

[20] This figure — used in the PCF — is based on numbers from the previous version of the National Inventory Report (i.e. from 2016). Using the latest NIR numbers from 2017, the absolute level of annual emissions for the 2030 target drops from 523 Mt (using NIR 2016) to approximately 517 Mt.

[21] Dave Sawyer and Chris Bataille, *Policy Brief 2: The Pan-Canadian Framework on Clean Growth and Climate Change* (Decarbonization Pathways Canada, 2017).

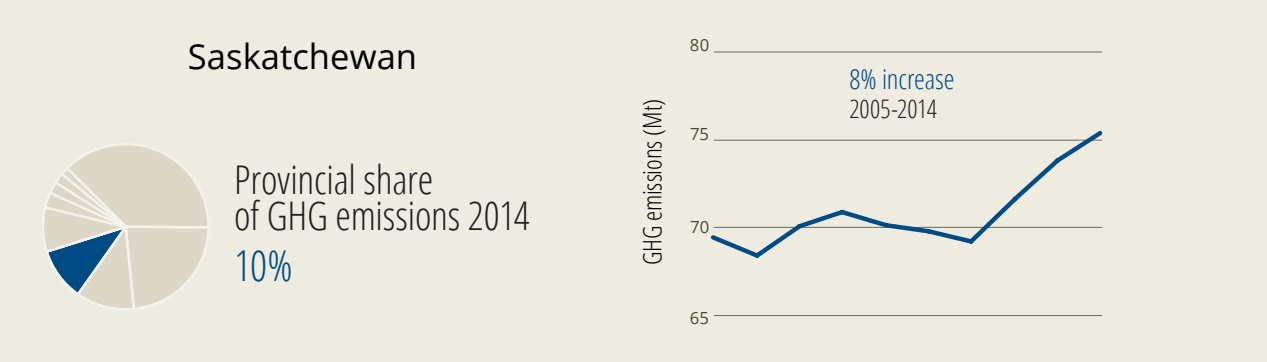
- B.C.'s carbon tax was implemented with a five-year schedule of rate increases, starting at $10/t-$CO_2$e in 2008 and rising by $5/t-$CO_2$e per year to $30/t-$CO_2$e in 2012.
- The tax applies to fossil fuels burned in the province (e.g. coal, gasoline, and natural gas), amounting to over 70% of the province's carbon pollution.
- Studies have shown that the carbon tax has reduced provincial GHG emissions by 5%–15%. The tax was found to have negligible effects on overall economic performance, though certain emissions-intensive and trade-exposed sectors faced challenges.[22]
- In 2013, the B.C. government decided to keep the rate and coverage frozen for five years — or until other jurisdictions introduce similar carbon pricing approaches.
- In 2017–18, the carbon tax is forecast to raise $1.2 billion in revenue.
- The Carbon Tax Act requires that money raised by the carbon tax be used to reduce other provincial taxes (referred to as "revenue neutrality").
- In 2014–15, the largest reduction measures were cutting corporate income taxes ($445 million) and personal income taxes ($269 million) and providing low-income tax credits ($193 million). These were the only three measures in the initial carbon tax design, but additional personal and business tax credits have since been included, totalling $617 million in 2013–14.
- B.C. has legislated 2020 and 2050 climate targets of 33% and 80% reductions below 2007 levels, respectively. The province is currently not on track to meet its 2020 target. B.C. does not have a 2030 target. In the absence of such a target, B.C.'s efforts to reduce emissions can be judged against Canada's commitment to reduce emissions by 30% by 2030. B.C. is currently not on track to achieve this proxy target. In fact, emissions are expected to be higher in 2030 compared to today's level.[23]



[22] Brian Murray and Nicholas Rivers, *British Columbia's Revenue Neutral Carbon Tax: A Review of the Latest 'Grand Experiment' in Environmental Policy*, NI WP 15-04 (Duke University, 2015).

[23] Navius Research, *Modelling the Impact of the Climate Leadership Plan & the Federal Carbon Price on British Columbia's Greenhouse Gas Emissions* (PICS, Pembina Institute, and CEC, 2016). http://www.pembina.org/pub/bc-climate-modelling

- Alberta currently regulates greenhouse gas emissions for large industrial facilities through an intensity-based approach. Since 2007, Alberta has required large industrial facilities to reduce their "emissions intensity" (i.e. emissions per unit of production) by up to 12% relative to their typical performance or "baseline" level.
- In 2015, the Government of Alberta announced its Climate Leadership Plan (CLP). The CLP updated Alberta's approach, from the Specified Gas Emitters Regulation (SGER) model, to an output-based allocation (OBA) model for large industrial emitters — designed to reward top quartile performance in the sectors to which it applies.
- Alberta has also introduced a downstream carbon levy on all emitting fuels used for transportation and heating — starting at $20/t-$CO_2$e in 2017, moving to $30/t-$CO_2$e in 2018.
- Alberta is the only province to have publicly endorsed the national benchmark up to $50/t-$CO_2$e in 2022.[24]
- The levy is expected to raise $9.6 billion over the first five years, with $6.2 billion to be invested in renewable energy, energy efficiency, and green infrastructure, and $3.4 billion set aside as rebates for households, businesses, and communities.



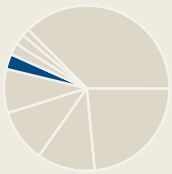
- In 2009, Saskatchewan released Bill 95: The Management and Reduction of Greenhouse Gases and Adaptation to Climate Change Act.[25] This act outlined greenhouse gas reporting rules, a technology fund, and the architecture of an emissions reduction target. However, the act itself did not stipulate an emissions baseline year nor an emissions reductions obligation. Further, the act was never proclaimed by the government.
- Premier Brad Wall actively opposes the federal government's "two-track" compliance option for subnational jurisdictions. Wall routinely states that the Province of

[24] Emma Graney, "Alberta carbon price rising to $50 per tonne — eventually" (Edmonton Journal, 2016). http://edmontonjournal.com/news/politics/alberta-carbon-price-rising-to-50-per-tonne-eventually

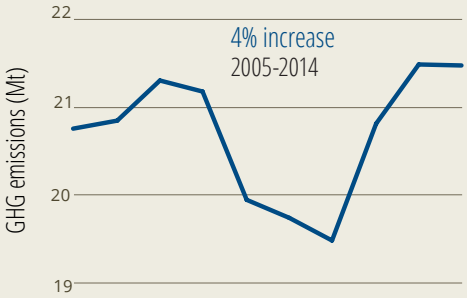
[25] Government of Saskatchewan, Bill 95: The Management and Reduction of Greenhouse Gases and Adaptation to Climate Change Act (2009). http://www.qp.gov.sk.ca/documents/english/FirstRead/2009/Bill-95.pdf

Saskatchewan will take the Government of Canada to court to assert its jurisdiction over taxation and the management of electricity and natural resources.[26]

Manitoba



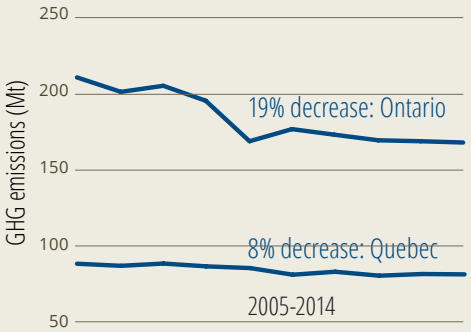
Provincial share of GHG emissions 2014
3%



- Under a former administration, Manitoba committed to join the Western Climate Initiative cap-and-trade system. However, this administration did not move its carbon pricing commitment forward before a provincial election in 2016. Following a change of government, Manitoba has not stated its intentions regarding how it will comply with the federal benchmark. Furthermore, the province did not sign on to the Pan-Canadian Framework, citing problems with the federal government's approach on other policy issues.

Ontario and Quebec

Provincial share of GHG emissions 2014
23% Ontario
11% Quebec



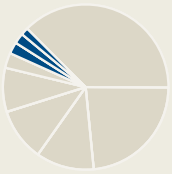
- Québec has been a member of the Western Climate Initiative since 2013. Ontario joined the market on January 1, 2017.
- The WCI program applies a cap to province-wide emissions, which declines in line with the province's own climate targets. Firms must have enough permits to cover their emissions, otherwise they must purchase additional permits. Firms can buy permits through government auctions or directly from companies that have a surplus.

[26] Nathalie Chalifour, "Brad Wall's legal case against carbon pricing is doomed" (iPolitics, 2017). http://ipolitics.ca/2017/01/26/brad-walls-legal-case-against-carbon-pricing-is-utterly-doomed/

- Facilities and natural gas distributors with emissions of 25,000 tonnes or more per year are required by law to participate in the program. Additionally, fuel suppliers that sell more than 200 litres of fuel per year and electricity importers must also participate in the program.
- A key element of Québec's approach has been the creation of a Green Fund where money raised through WCI is re-invested in various programs to further reduce emissions. For example, two-thirds of revenue from its carbon market go to sustainable transportation measures, including electrification, mode switching, and reducing emissions from freight.
- Ontario has three emissions reduction targets, which were enshrined in law in 2016: 15% below 1990 levels by 2020, 37% below 1990 by 2030, and 80% below 1990 levels by 2050.
- Québec has three of Canada's most ambitious climate targets: 20% below 1990 levels by 2020, 37.5% below 1990 levels by 2030, and 80% to 95% below 1990 levels by 2050. All but the 2050 target are legislated. In 2012, Quebec achieved its Kyoto Protocol emissions target of 6% below 1990 levels.

Atlantic

New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador



Provincial share of GHG emissions 2014
7%

- Atlantic Canada's premiers, in collaboration with the New England governors, have committed to reduce regional emissions by 35% to 45% below 1990 levels by 2030, and 75% to 85% below 2001 levels by 2050.
- Prior to the federal benchmark announcement, no province in Atlantic Canada had a carbon price in place. Subsequently, Nova Scotia has committed to creating a province-wide cap-and-trade system, albeit unlinked to the WCI.

Territories

Yukon, Northwest Territories and Nunavut

Territorial share of GHG emissions 2014
<1%

- Prior to the federal benchmark announcement, no territory had a carbon price in place. Since then, Yukon has announced it is planning to allow the federal government to

implement its carbon price, with all revenue to be returned to the Yukon government and rebated to Yukoners.

5. Next steps

Canada's approach to pricing carbon pollution has the potential to be an example to the world. But work is needed to lay the groundwork for our collective success. To ensure Canada's new national approach to carbon pricing is effective at reducing emissions, we recommend the following:

1. The federal model legislation should at a minimum provide guidance on treatment of EITE sectors and the protection of vulnerable Canadians in accordance with the principles outlined in this document. Further, the national carbon pricing benchmark should be indexed to inflation;

2. Any EITE treatment should aim to minimize carbon leakage and competitiveness impacts. Given that a carbon price has been in place for almost 10 years in B.C., the federal government should collect and analyze data on actual leakage and competitiveness impacts to B.C.-based industries under the carbon tax to create an evidentiary basis for program design;

3. The federal benchmark should require as broad coverage as is accurately measurable. Further, the benchmark should be updated periodically as new technologies and reporting procedures make accurately quantifying new sources of emissions viable;

4. The federal government should make clear the terms of the 2020 review. This review must fairly and accurately assess the progress that has been made to comply with the national benchmark. The federal government should make clear whether an assessment of each jurisdiction's overall effort to reduce emissions will be considered. In addition, the federal government should consider whether an assessment of approaches to protecting vulnerable Canadians will be a part of the review;

5. The national benchmark should stipulate that cap-and-trade systems must have a cap decline rate in line with a 30% reduction below 2005 levels by 2030. Further, it should stipulate that the cap decline rate be set at least as stringent as projected in the reference case for each jurisdiction respectively;

6. The federal government should ensure that carbon pricing and other policies to reduce carbon pollution are reviewed collectively and regularly and consistently, as per Canada's obligations under the Paris Agreement, to ensure that Canada is on track to achieve its carbon pollution reduction goals.

7. The federal government should begin laying groundwork for carbon price increases out to 2030. A predictable schedule of increases from 2022 to 2030 will be necessary to provide the economic certainty needed to drive innovation in the clean economy and to keep Canada on track to meet its emission reduction goals.

The advancement of carbon pollution pricing has never been more critical. We look forward to working with Canada's First Ministers to ensure the country takes advantage of the long-term economic benefits presented by climate action, and becomes a beacon for climate progress internationally.