

The B.C. carbon tax

Backgrounder

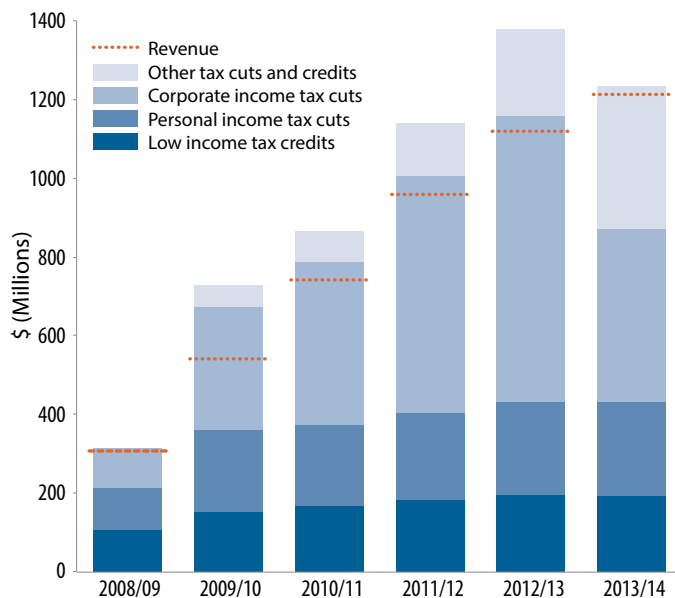
British Columbia’s carbon tax has been in place for six years and all available evidence indicates it has been successful.

Per capita fossil fuel combustion is down and the economy has performed well relative to the rest of Canada. The policy has survived two provincial elections and a change in Premier. This backgrounder explores B.C.’s experience with the carbon tax.

“British Columbia’s carbon tax is as near as we have to a textbook case, with wide coverage across sectors and a steady increase in the rate.”

— Mr. Angel Gurría, OECD Secretary-General

Carbon tax revenue and allocation



Source: Compiled from B.C. Fiscal Plans 2009/10 through 2014/15

Basic design

B.C.’s carbon tax was implemented with a five-year schedule of rate increases starting at \$10 per tonne in 2008, rising by \$5 per tonne per year to \$30 per tonne in 2012.¹ The tax applies to almost all of the fossil fuels burned in the province (e.g., coal, gasoline, natural gas), amounting to over 70 per cent of the province’s carbon pollution.² In 2013, the government decided to keep the rate and coverage stable for five years — or until other jurisdictions introduce similar carbon pricing approaches.

For the 2013–14 fiscal year, the carbon tax is forecasted to raise \$1.2 billion — slightly less than three per cent of total provincial 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’).³ In 2013–14, the largest reduction measures were cutting corporate income taxes (\$440 million) and personal income taxes (\$237 million) and providing low-income tax credits (\$194 million).⁴ These were the only three measures in the initial carbon tax design, but additional personal and business tax credits have since been included and they totaled \$361 million in 2013–14.⁵

Carbon Tax Rates by Common Fuel Type as July 1, 2012

Gasoline: 6.67 c/ litre	Diesel: 7.67 c/litre	Jet fuel: 7.83 c/litre
Natural gas: 1.49 c/gigajoule	Propane: 4.62 c/litre	

Source: www.sbr.gov.bc.ca/documents_library/shared_documents/Carbon_Tax_Rates_by_Fuel_Type_from_Jan_2010.pdf

Environmental and economic impacts

The handful of studies that have attempted to measure the impact of B.C.'s carbon tax have found it to be an environmental and economic success. No studies have identified significant negative impacts.

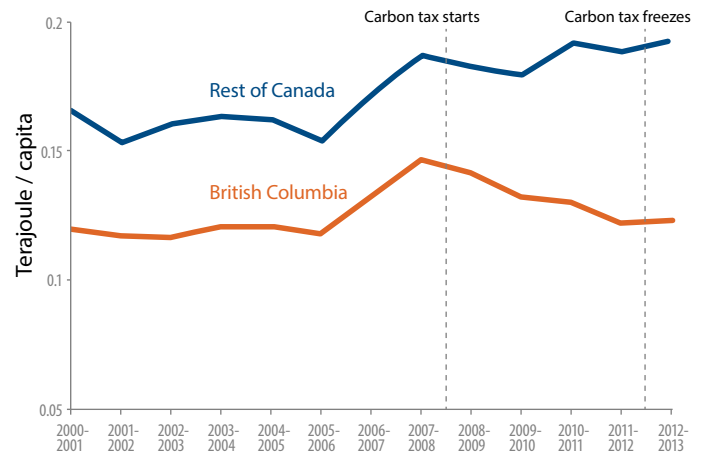
Looking economy-wide, recent analysis shows per capita fossil fuel use declined by 16.1 per cent in B.C. from 2008 through 2013. The same metric has risen by over three per cent in the rest of Canada.⁶ During this same period, B.C.'s per capita GDP has slightly outpaced the rest of Canada's, growing by 1.75 per cent versus 1.28 per cent. The study attributed the positive economic results to B.C.'s decision to use carbon tax revenue to lower personal and corporate income taxes.⁷

Several studies have looked at the tax's impact on specific segments of the economy. One found that the carbon tax has been responsible for a much larger than anticipated drop in per capita gasoline demand. The drop was almost five times greater than what would be expected from an equivalent increase in gasoline price not related to the carbon tax.⁸

An analysis of municipal government climate action in B.C. found that the carbon tax has encouraged B.C. communities to move ahead with clean energy projects. Seven of 12 communities interviewed saw the carbon tax as having either a very or somewhat positive role in building the business case for projects they had implemented. The remaining five viewed it as having a neutral effect, primarily because the rate is too low to significantly influence their investment decisions.⁹

A study examined the carbon tax's economic impact on B.C.'s agriculture sector, which had expressed concerns about impacts on competitiveness. Using agriculture trade data, the study compared the economic performance of agriculture sectors across provinces and found "little evidence that the carbon tax was associated with any statistically significant effects on agricultural trade or competitiveness from 2008–2011."¹⁰

Sales of fuels subject to BC carbon tax



Adapted from: Stewart Elgie, "Just the Facts: What's behind B.C.'s whopping fuel use drop?," Sustainable Prosperity, July 9, 2014. www.sustainableprosperity.ca/blogpost97

“In Vancouver, we are fortunate that our Provincial Government instituted North America’s first carbon tax. In just six years, it has proved to be a success in moving our province towards a greener future. At the same time, our economy is thriving, and in Vancouver, it has spurred rapid job growth in a cleaner, greener economy. Renewable energy and clean tech companies are choosing to invest in Vancouver precisely because we are ahead of the curve with a carbon tax.”

— Gregor Robertson, Mayor, City of Vancouver

Public opinion

B.C. implemented the carbon tax as part of a wave of climate change initiatives that started in 2007. A year after its implementation, the carbon tax became a central issue in the 2009 provincial election, with the opposition B.C. New Democratic Party (NDP) campaigning to eliminate it. Largely because of their perceived strength on economic issues, the B.C. Liberals — and the carbon tax they implemented — won that election.¹¹ The government proceeded with the scheduled rate increases in 2009 through 2012, which overlapped with the March 2011 transition when Christy Clark replaced Gordon Campbell.¹²

The 2013 provincial election was a different story. All of the candidates who won seats in the legislative assembly supported the carbon tax. The Liberals endorsed the carbon tax without any further changes, the NDP backed broadening its coverage and moving away from revenue neutrality, while the Green Party wanted to increase the rate and broaden its coverage.¹³ The B.C. Liberals won the election.

Tracked since the carbon tax was announced in February 2008, public support dropped as low as 40 per cent when the policy was implemented, then mostly trending upwards to as high as 64 per cent in November 2012.¹⁴ Independent of the carbon tax, British Columbians have expressed a high degree of confidence that the province can reduce carbon pollution without negatively impacting the economy.¹⁵

The province invited British Columbians to share their views on the carbon tax during the 2013 carbon tax review. Of the 2,200 public submissions received, more than 75 per cent expressed support for the tax and for taking next steps to strengthen the policy. That support was distributed throughout urban, suburban and rural parts of the province.¹⁶

Points of debate

As with any new policy, many aspects of the carbon tax design have been debated in the province. The most prominent are summarized below.¹⁷

Industry competitiveness

B.C.'s business community has generally been supportive of the importance of addressing climate change and the use of carbon taxes as a potentially effective tool. They have also expressed concern that the carbon tax design doesn't protect sectors of the economy that are emissions intensive and trade exposed, and they have called for a freeze in carbon tax rates.¹⁸ In 2013, the province froze the carbon tax rate and coverage for five years. It also made a small change to the carbon tax's coverage to largely exempt the agriculture sector.¹⁹ While many stakeholders have been open to the idea of targeted measures to protect B.C. businesses where there is a demonstrable need,²⁰ the exemptions introduced by the province were criticized because they weren't backed by evidence and they undermined the incentive to reduce carbon pollution.²¹

“British Columbia should work with the New West Partnership, the Council of the Federation and the federal government to build a unified, Western Canadian and ultimately a pan-Canadian position on carbon pricing.”

— BC Business Council

Protecting low-income British Columbians

The carbon tax design includes a tax credit for low-income British Columbians to offset the financial burden of more expensive fuel — a decision that was broadly supported.²² A point of debate has been whether the tax credit provides adequate support for low-income British Columbians, with the available evidence offering conflicting conclusions. One study found that low-income households were better off through 2010 because the low-income credit was more than the amount paid in carbon tax. After that, increases in the size of the credit have not kept pace with increases in the carbon tax rate.²³ A second study found the carbon tax to be highly progressive, even before the low impact tax credit was considered.²⁴

Northern and rural concerns

The original carbon tax design did not contain any other targeted measures like the low-income tax credit. Over time, a number of additional tax credits have been introduced, including an annual grant for northern and rural homeowners.²⁵ The grant was in response to opposition to the carbon tax from those communities.²⁶ Its introduction has been criticized as unnecessary because the province's data indicated that rural residents were paying less in carbon tax than those in urban and suburban communities.²⁷

Coverage

The carbon tax applies to almost all of the carbon pollution produced by burning fossil fuels in B.C., but it excludes non-combustion sources such as methane released during natural gas transmission and processing. Whether the carbon tax should apply to those non-combustion sources has been an ongoing debate since shortly after the tax was implemented.²⁸ The province acknowledges this gap in its Climate Progress report, but has not said how it will be addressed.²⁹

“For the sake of working people and their families, we have to ensure we have both good jobs and a healthy environment. Putting a price on carbon can be an effective part of larger, comprehensive strategy that involves using the revenue generated by the carbon tax to produce good, green jobs for British Columbians.”

— Jim Sinclair, Past President, BC Federation of Labour

Investing the revenue

Government decided to use all carbon tax revenue to reduce other taxes, because they determined it to be in the best interests of the economy and the most saleable to business and British Columbians. A wide range of viewpoints has been offered on this approach. There is support for the revenue neutral approach,³⁰ and there is support for investing some revenue in climate change solutions — either immediately or when carbon tax revenue increases.³¹ Public opinion research indicates that British Columbians would be more supportive of the carbon tax if at least some of the revenue were invested in healthcare, education and/or climate change solutions.³² The government remains committed to keeping the carbon tax revenue neutral.

“A properly designed carbon tax, with the revenues it generates returned to taxpayers in an economically appropriate manner, is good economic policy. In this context, the B.C. carbon tax seems to be on the right track.”

— Munir Sheikh, former Chief Statistician of Canada

Moving forward with carbon pricing in B.C.

Having survived two elections and a change in premier, B.C.'s carbon tax is here to stay for the foreseeable future. The economic, environmental and social lessons emerging from the B.C. experience offer a useful platform for other jurisdictions to learn from, and for B.C. to build upon when it decides to move forward with the carbon tax.

“In 2008, we put a price on carbon through a revenue-neutral carbon tax. Since then, our energy-related greenhouse gas emissions have dropped by more than 5 percent and emissions are down across the board, all while our economy has continued to grow. And we still maintain some of the lowest personal and corporate income taxes across Canada.

Here in British Columbia, we are proving that you can grow the economy and protect the environment at the same time.”

— Premier Christy Clark

B.C. Carbon Tax Timeline

- Feb. 13, 2007** Speech from the throne sets climate change as B.C.'s top priority
- Feb. 18, 2008** Carbon tax introduced in provincial budget
- July 1, 2008** B.C. implements North America's most ambitious carbon tax; rate starts at \$10/tonne
- Feb. 17, 2009** Government introduces grant for northern and rural homeowners
- May 12, 2009** B.C. Liberals win provincial election
- July 1, 2009** Rate increases to \$15/tonne
- July 1, 2010** Rate increases to \$20/tonne
- Mar. 14, 2011** Christy Clark sworn in as B.C.'s 35th Premier
- July 1, 2011** Rate increases to \$25/tonne
- Feb. 21, 2012** Government announces carbon tax review in 2012 budget; provides exemption for greenhouse growers
- July 1, 2012** Rate increases to \$30/tonne
- Feb. 19, 2013** Government extends exemptions for greenhouse growers and adds exemptions for agriculture
- May 14, 2013** B.C. Liberals win provincial election; carbon tax rate and coverage frozen for 5 years, or until other jurisdictions implement comparable approaches

Endnotes

1. The carbon intensity of different fuels determines what \$30 per tonne means in terms of cost. For gasoline, \$30 per tonne is equivalent to 6.67 cents per litre. For natural gas, it is equivalent to \$1.40 per gigajoule. The provincial government publishes a full list of carbon tax rates: www.sbr.gov.bc.ca/documents_library/shared_documents/Carbon_Tax_Rates_by_Fuel_Type_from_Jan_2010.pdf.
2. The exact figure fluctuates depending on fossil fuel use relative to non-combustion sources such as vented and leaked methane from the natural gas sector. The 70 per cent is calculated based on the carbon pollution included in B.C.'s provincial emissions inventory, and does not include the carbon pollution associated with imported or exported energy (e.g. coal-fired power from Alberta or thermal coal exported to Asia).
3. According to the Carbon Tax Act (www.bclaws.ca/Recon/document/ID/freeide/00_08040_01): "The carbon tax is revenue neutral if the dollar amount of the carbon tax collected in a fiscal year is less than or equal to the estimated dollar amount of the reduction in Provincial revenues in the same fiscal year as a result of revenue measures."
4. The corporate and personal income tax cuts and low income tax credits accounted for approximately 69% of the tax cuts and credits in 2013–14. The full list of tax cuts financed by the carbon tax is in Table 1 of the Revenue Neutral Carbon Tax Report 2012–13 and 2013–14 on page 64 of the Budget and Fiscal Plan – 2014/15 to 2016/17.
5. Of the \$361 million in other tax credits, \$91 million were personal tax measures and \$270 were corporate.
6. Stewart Elgie, "Just the Facts: What's behind B.C.'s whopping fuel use drop?," *Sustainable Prosperity*, July 9, 2014. www.sustainableprosperity.ca/blogpost97
7. Stewart Elgie, "Just the Facts: Did the carbon tax shift burden or buoy B.C.'s economy?," *Sustainable Prosperity*, July 9, 2014. www.sustainableprosperity.ca/blogpost99
8. Nicholas Rivers and Brandon Schaufele, *Salience of Carbon Taxes in the Gasoline Market*, Social Science Research Network, June 10, 2013. <http://dx.doi.org/10.2139/ssrn.2131468>
9. Timothy Shah and Claire Beckstead, *Local Climate Action in British Columbia: motivations and policy implications*, (Pembina Institute, 2012). <http://www.pembina.org/pub/2373>
10. Nicolas Rivers and Brandon Schaufele, "The Effect of British Columbia's Carbon Tax on Agricultural Trade," *Canadian Journal of Agricultural Economics* (in press); also published by the Pacific Institute for Climate Solutions (July 2014). pics.uvic.ca/sites/default/files/uploads/publications/Carbon%20Tax%20on%20Agricultural%20Trade.pdf
11. Kathryn Harrison, "The Political Economy of British Columbia's Carbon Tax", *OECD Environment Working Papers*, No. 63 (2013). <http://dx.doi.org/10.1787/5k3z04gkxhkg-en>
12. Christy Clark committed to follow through on the scheduled carbon tax increases when campaigning in a 2011 by-election after being selected leader of the B.C. Liberal party. http://www.newsroom.gov.bc.ca/downloads/Letter_to_editor_May6-2011.pdf
13. Matt Horne, Kevin Sauvé and Josha MacNab, *Climate change and the 2013 British Columbia election*, (Pembina Institute, 2013). <http://www.pembina.org/pub/2450>
14. The Environics Institute and David Suzuki Foundation, *Canadian public opinion about the BC carbon tax* (2013). <http://www.enviroinicsinstitute.org/uploads/news/focus%20canada%202013%20-%20public%20opinion%20on%20bc%20carbon%20tax%20-%20december%2016-2013.pdf>
15. Matt Horne, *Measuring the Appetite for Climate Action in British Columbia: British Columbians' perspective on climate change and carbon taxes* (Pembina Institute, 2011), 3. <http://www.pembina.org/pub/2233>; and Tom Pedersen, Matt Horne and Kevin Sauvé, *British Columbians' perspectives on global warming and the carbon tax* (Pembina Institute, 2012), 6. <http://www.pembina.org/pub/2376>. These two polls also asked a number of carbon tax questions to test support, perceived economy-wide impact, personal impact, coverage, and future rate.
16. The carbon tax review received a total of 2,200 public comments. Although those comments were not made public, at least 75% came through the Better Future Fund website and were supportive of the carbon tax. The locations of British Columbians that submitted comments to the carbon tax review through the Better Future Fund website are here: <https://batchgeo.com/map/betterfuturefund>. Four in ten (42%) originated in Metro Vancouver and the Lower Mainland, one in four (25%) originated in Greater Victoria and the balance (33%) originated in other areas of B.C.
17. For a more extensive discussion of the perspectives underlying these debates see: Matt Horne, Ekaterina Petropavlova and P.J. Partington, *British Columbia's Carbon Tax: Exploring perspectives and seeking common ground* (Pembina Institute, 2012). <http://www.pembina.org/pub/2352>
18. B.C. Business Council, *Submission to the Provincial Carbon Tax Review* (2012). <http://www.bcbc.com/submissions-presentations/2012/submission-bcbcs-submission-to-the-provincial-carbon-tax-review>
19. The provincial government announcement did not provide a detailed rationale for why exemptions were provided for the agriculture sector (<http://www.newsroom.gov.bc.ca/2013/04/permanent-carbon-tax-relief-for-bcs-greenhouse-growers.html>). The total value of these exemptions was estimated to be \$11 million annually (1% of carbon tax revenue).
20. For example, see *Recommendations regarding the future of British Columbia's carbon tax*, joint carbon tax review submission from 17 labour unions and environmental groups. Available at <http://www.pembina.org/pub/2370>
21. For example, see Matt Horne, "Exemptions for greenhouse growers set poor precedent for carbon tax review" *Pembina Institute*, April 4, 2012. <http://www.pembina.org/blog/618>
22. *British Columbia's Carbon Tax: Exploring perspectives and seeking common ground*.
23. The low-income credit was last increased in 2011, when it rose to \$115.50 per adult and \$34.50 per child. Marc Lee and Toby Sanger, *Is B.C.'s Carbon Tax Fair? An impact analysis for different income levels* (Canadian Centre for Policy Alternatives, 2008). <https://www.policyalternatives.ca/publications/reports/bcs-carbon-tax-fair>
24. Marisa Beck, Nicholas Rivers, Randall Wigle, Hidemichi Yonezawa, "Carbon Tax and Revenue Recycling: Impacts on Households in British Columbia," *Social Science Research Network*, September 7, 2014. <http://dx.doi.org/10.2139/ssrn.2492766>
25. The grant was introduced in the 2009 provincial budget. Up to \$200 is available per household. In 2013–14 the province estimates that the grant will cost the government \$69 million.
26. Kathryn Harrison and Chelsea Peet, "Historical Legacies and Policy Reform: Diverse Regional Reactions to British Columbia's Carbon Tax," *BC Studies* 173 (2012). <http://ojs.library.ubc.ca/index.php/bcstudies/article/view/2431>.
27. "The Political Economy of British Columbia's Carbon Tax."
28. First recommended by B.C.'s Climate Action Team in 2008. Recommendation 1.2. http://www.env.gov.bc.ca/cas/mitigation/pdfs/CAT_FINAL_REPORT_July_23_2008.pdf.
29. Government of British Columbia, *Climate Action in British Columbia: 2014 Progress Report*, 7.
30. For example, see the B.C. Business Council's submission to the Provincial Carbon Tax Review (<http://www.bcbc.com/submissions-presentations/2012/submission-bcbcs-submission-to-the-provincial-carbon-tax-review>) and Sustainable Prosperity's analysis of the carbon tax shift's impact on B.C.'s economy (<http://www.sustainableprosperity.ca/blogpost99>).
31. For example, see *Recommendations regarding the future of British Columbia's carbon tax*, and Mayor's Council on Regional Transportation, Regional Transportation Investments: a vision for Metro Vancouver (2014). http://mayorscouncil.ca/wp-content/uploads/2014/06/MayorsCouncil_Vision_June-12-2014.pdf
32. *Measuring the Appetite for Climate Action in British Columbia*, 3, and *British Columbians' perspectives on global warming and the carbon tax*, 6.