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Why British Columbia's Carbon Tax Is Not Applicable to America

By Marlo Lewis*

To persuade Americans—especially conservatives and libertarians—that a carbon tax can reduce emissions without harming the economy, some proponents tout British Columbia's (BC) carbon tax, enacted in May 2008. How relevant is the British Columbia model to U.S. climate and tax policy debates?

In the U.S., many conservatives like the BC carbon tax for being revenue-neutral—that is, all revenue it brings in must be used to reduce other taxes. During 2012-2013,¹ the policy was actually revenue-negative because the tax reduced motor fuel sales more than forecast, hence raising less revenue than forecast.² BC's Carbon Tax Act³ imposes a tax on all fossil fuels based on their carbon dioxide-equivalent (CO₂e) emissions.⁴ The carbon tax started at C\$10 (US\$9.06) per ton CO₂e in July 2008 and increased each year by C\$5 (US\$4.53) per ton until reaching C\$30 (US\$27.18) per ton in July 2012.⁵

R Street Institute economist Andrew Moylan, in *The American Conservative*, described BC's carbon tax as a success story that U.S. policy makers should emulate:

Early returns on the policy are quite positive. A recent study found that the province's gross domestic product growth has outpaced the rest of Canada, while its corporate income tax rate has been reduced to among the lowest anywhere in the G8 countries. Despite concerns that it might grow government, the tax has stayed revenue neutral and enjoys broad public support.⁶

This argument is misleading for several reasons, which are outlined below.

No Boost to Growth. The study to which Moylan refers, *British Columbia's Carbon Tax Shift: The First Four Years*, does report that BC's economy outperformed the rest of Canada during 2008-2011, but it cautions readers not to jump to conclusions. During those four years BC's GDP growth outpaced the Canadian average by only 0.1 percent, and as the report notes, "the carbon tax is just one small factor in BC's overall economic picture."⁷

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In 2012, BC's GDP growth was *below* both the Canadian average and the growth rates of Alberta, Yukon Territory, Manitoba, Saskatchewan, Nunavut, and Northwest Territories, according to Statistics Canada.⁸ Similarly, in 2013, BC's GDP growth was *below* both the Canadian average and the growth rates of Newfoundland and Labrador, Saskatchewan, Alberta, and Manitoba, according to the Royal Bank of Canada.⁹ While that does not mean the carbon tax harmed BC's economy in 2012 and 2013, it clearly was not a big plus. Even the BC Ministry of Finance, a staunch proponent of the tax as *climate policy*, estimates the "carbon tax has had, and will continue to have, a small negative impact on gross domestic product (GDP) in the province."¹⁰

No Lower Taxes. A revenue-neutral carbon tax does not reduce the overall tax burden (except when it happens by sheer accident); it just redistributes it. But that has not stopped proponents from trying to give the carbon tax credit for BC's low income tax rates.

Some, like *Mother Jones* reporter Chris Mooney, claim BC's carbon tax has reduced personal income taxes to where they now are the "lowest in all of Canada" for individuals earning up to \$122,000.¹¹ Among provinces, BC does have the lowest average personal income taxes for individuals earning between \$30,000 and \$125,000, but that was already the case before BC enacted its carbon tax.¹² (Actually, the lowest taxes in Canada are found not in any province, but in the territory of Nunavut.¹³)

As for Moylan's claim that BC's 11 percent corporate income tax is among the lowest in the G8, it is indeed lower than that of eight other Canadian provinces, but not lower than Alberta's 10 percent rate.¹⁴ And it is higher than the corporate income tax of every U.S. state, with the exception of Iowa, which has a top rate of 12 percent.¹⁵

Trojan Horse for Higher Taxes. It is not inevitable that a carbon tax, once enacted, will morph into an anti-growth policy, but climate campaigners will push for increasingly punitive versions of the tax. British Columbia is no exception.

BC's carbon tax is revenue neutral and capped at \$30 per ton, but environmentalists in the province want to rescind those features. In 2012, the Canadian Centre for Policy Alternatives advocated hiking the tax to at least \$50 per ton by 2016, applying it to coal and gas exports to other jurisdictions, and using revenues to fund climate action programs like public transit and energy conservation.¹⁶ The Pembina Institute advocated increasing the tax to \$100-\$200 per ton by 2020, broadening the base, and using revenues to fund greenhouse gas reduction projects.¹⁷ A coalition of green groups argued for upping the tax to \$75 per ton by 2020.¹⁸

Such proposals became an issue in the 2013 provincial elections. The governing Liberal Party, defying pollsters' predictions,¹⁹ retained its majority, partly because Premier Christy Clark campaigned on a promise to freeze the carbon tax for five years.²⁰

Of course, the best way to keep a new tax from harming the economy is not to enact it in the first place.

Unsuitable Geology. The chief reason BC is not an appropriate model for the U.S. is that the province's geology, climate, and electric supply system are extremely different from those of most American states. BC's peculiar electricity fuel mix sharply limits the damage that a \$30 per ton carbon tax can do to the province's economy.

Nearly all of BC's base-load electricity is zero-carbon hydropower. The second largest source of electricity is carbon-neutral biomass from wood waste used to generate onsite power at pulp and lumber mills. The third largest source is natural gas, used to meet peak demand and for load balancing; it generates less than 6 percent of BC's electricity. The lowest-carbon fossil fuel, it is the only part of BC's electric supply system subject to the tax.²¹

Like British Columbia, Washington State and Oregon are part of the Columbia River Basin system and derive most of their electricity from hydropower (Washington, 77.8 percent; Oregon, 75.3 percent),²² but the U.S. as a whole gets only 7 percent of its electricity from hydro.²³ That is chiefly because geographical conditions are very different outside the Columbia River Basin. As Energy BC, a non-profit educational and research institute, observes:

Hydroelectric developments depend upon a combination of elevation, climate, and running water. It is most common for hydroelectric power stations to be located on mountain rivers at points where the elevation begins to drop significantly. High precipitation levels are needed to enhance river flow.²⁴

Moreover, even where favorable geology and climate might exist, environmental and property rights concerns today preclude construction of large dams like BC's Mica, Gordon M. Shrum, and Revelstoke, which generate over half the province's electricity.²⁵

Tax on Vast Majority of Energy Use. Whereas coal generates no electricity in BC, it provides the majority of electric power in 21 states and is the largest single source of power in half the states.²⁶

BC's carbon tax translates to a coal tax of C\$53.31 (US\$48.53) per ton for low heat-value coal and C\$62.31 (US\$57.07) per ton for high heat-value coal.²⁷ Adopting such a tax in the U.S. would nearly double the cost of Appalachian coal, more than double the cost of Illinois Basin coal, and more than quadruple the cost of Powder River Basin coal, based on Energy Information Administration coal-price data.²⁸ How could such cost increases not have significant adverse impacts on coal producing regions and states where most or much electricity comes from coal?

As for vehicles, BC's \$30 per ton carbon tax translates into gasoline tax of 6.7¢ per liter, or roughly 23¢ per gallon in U.S. dollars.²⁹ Motor fuel prices can fluctuate more than that from year-to-year and even seasonally.³⁰ So even while the carbon tax contributes to the overall price of gasoline, BC gas prices are still lower than those in Ontario, Quebec, Newfoundland, and Labrador.³¹ The economic impact of the carbon tax would be much larger if, as in the case of Alberta, BC got 52 percent of its electricity from coal and 37 percent from natural gas.³²

Not so Revenue Neutral. As noted, in year five of the carbon tax, BC progressives campaigned to scrap the revenue neutrality requirement. They were unsuccessful largely because of the huge difference in budget politics between BC's Capital of Victoria and Washington, D.C. BC's Liberal government ran a \$175 million surplus in 2014, and forecasts surpluses of \$184 million, \$206 million, and \$451 million over the next three fiscal years.³³ When you are flush with cash, it is easy to be revenue-neutral with new taxes.

Washington policy makers operate in a vastly different fiscal arena. Although the U.S. budget deficit is down from its 2009 peak, it is still nearly half a trillion dollars,³⁴ and the Congressional Budget Office forecasts the deficit to start increasing after 2015.³⁵ Thus we can expect the quest for revenue "enhancements" to resume after the November elections. Politicians most interested in a carbon tax will be those looking for a new cash cow to milk.

Taxing "Bads" Does Not Necessarily Yield More "Goods." Carbon tax proponents claim it is preferable to tax "bads" like emissions than "goods" like work and investment.³⁶ That glib formulation ignores some important—and rather obvious—facts.

Carbon taxes are designed to increase the cost of fossil fuels, which supply 82 percent of U.S. commercial energy.³⁷ Energy, like labor and capital, is a factor of production. Without affordable, plentiful, scalable fossil energy, very little of what we know as modern U.S. transport infrastructure, manufacturing, and mechanized agriculture would even exist.

Fossil energy-powered machines and information networks continue to make critical contributions to U.S. labor productivity, the competitiveness of U.S. firms, and the attractiveness of the U.S. economy as a place to invest. In the U.S., a carbon tax is an indirect tax on work and investment.

Substituting carbon taxes for income taxes would make the U.S. tax system less efficient and create significant market distortions. As Institute for Energy Research scholar Robert Murphy points out, the smaller the base on which a tax of a given size is levied, the more distortionary the effects. The base of a carbon tax—particular commodities or industries—is narrower than the base for retail sales, income, and labor taxes.³⁸

A Grand Bargain Is a Losing Bargain. Some carbon tax proponents envision a grand bargain between conservatives and environmentalists whereby revenue-neutral carbon taxes "supplant entirely the myriad regulations that exist to reduce emissions,"³⁹ including the U.S. Environmental Protection Agency's (EPA) Clean Power Plan and federal fuel economy standards.⁴⁰

Yet nothing like that has happened in BC—and U.S. green activists would never allow it to happen here. The province has legislated greenhouse gas reduction goals of 33 percent below 2007 levels by 2020 and 80 percent below 2007 levels by 2050, and no one expects the carbon tax alone to achieve those targets.⁴¹ The Ministry of Finance has stated that the tax will be "integrated with other measures" such as "cap and trade."⁴²

Similarly, the Ministry of Environment views the carbon tax as one element of a climate policy regime that includes motor vehicle greenhouse-gas emission standards, renewable and low-carbon fuel requirements, green building regulations, high-density zoning policies, energy efficiency regulations, demand-side management programs, a 93-percent renewable electricity standard, and—potentially—cap and trade.⁴³

Note that the only cap and trade bill ever to pass in a chamber of Congress, the Waxman-Markey American Clean Energy and Security Act of 2009, did not repeal a single regulation, but instead would have added a raft of new energy efficiency standards, a carbon capture and storage mandate for new coal power plants, a low-carbon fuel standard, and a first-ever national renewable electricity standard.⁴⁴

Climate campaigners' regulatory zeal has not dimmed since then. Neither the carbon tax bill sponsored by Sens. Bernie Sanders (I-Vt.) and Barbara Boxer (D-Calif.)⁴⁵ nor that sponsored by Sen. Sheldon Whitehouse (D-R.I.) and Rep. Henry Waxman (D-Calif.)⁴⁶ would repeal one iota of the EPA's regulatory power. The latter bill even includes language clarifying that payment of carbon taxes does not affect any entity's compliance obligations under other laws. As Rep. Waxman explained when announcing the bill, "I wouldn't want it to replace the other actions that, say, the EPA could take."⁴⁷

Conclusion. While BC has implemented something very close to a textbook carbon tax, the policy is not a model for the U.S. The economic impacts have so far been small, but British Columbia's experience offers no reasonable grounds for believing that a U.S. carbon tax would be economically-benign, revenue-neutral, or a cure for regulatory excess.

Notes

¹ British Columbia Ministry of Finance, *Budget and Fiscal Plan 2014/15 to 2016/17: Tax Measures*, p. 64, http://bcbudget.gov.bc.ca/2014/bfp/2014_budget_and_fiscal_plan.pdf#page=74.

² The carbon tax generated \$1,120 million in revenues while the government decreased business and personal taxes by \$1,380 million, yielding a net tax reduction of \$260 million. Nicholas Rivers and Brandon Schaufele, "Carbon Tax Salience and Gasoline Demand," Working Paper # 1211E, August 2012, p. 17, <http://socialsciences.uottawa.ca/sites/default/files/public/eco/eng/documents/1211e.pdf>.

³ Bill 37 – 2008 Carbon Tax Act, http://www.leg.bc.ca/38th4th/3rd_read/gov37-3.htm.

⁴ BC Ministry of Finance, *Tax Rates on Fuels: Motor Fuel Tax Act and Carbon Tax Act*, Bulletin MFT-CT 005, June 2014, http://www.sbr.gov.bc.ca/documents_library/bulletins/mft-ct_005.pdf.

⁵ Ministry of Finance, Carbon Tax: overview of the revenue-neutral carbon tax, http://www.fin.gov.bc.ca/tbs/tp/climate/carbon_tax.htm.

⁶ Andrew Moylan, "How to Tax Carbon: Conservatives can fight climate change without growing government," *The American Conservative*, October 2, 2013, <http://www.theamericanconservative.com/articles/how-to-tax-carbon/>.

⁷ Sustainable Prosperity, *British Columbia's Carbon Tax Shift: The First Four Years*, Research Report, June 2012, p. 13, <http://www.sustainableprosperity.ca/dl872&display>.

⁸ Statistics Canada, *Provincial and Territorial Economic Accounts Review 2012*, Chart 1 Real Gross Domestic Product 2012, p. 5, <http://www.statcan.gc.ca/pub/13-016-x/13-016-x2014001-eng.pdf>.

⁹ Royal Bank of Canada, Provincial Outlook, March 2014, p. 1, <http://www.rbc.com/economics/economic-reports/pdf/provincial-forecasts/provfcst-mar2014.pdf>.

¹⁰ BC Ministry of Finance, *June Budget Update – 2013/14 to 2015/16: Tax Measures*, p. 64, http://www.fin.gov.bc.ca/tbs/tp/climate/Carbon_Tax_Review_Topic_Box.pdf.

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- ¹¹ Chris Mooney, “British Columbia Enacted the Most Significant Carbon Tax in the Western Hemisphere. What Happened Next Is It Worked,” *Mother Jones*, March 26, 2014, <http://www.motherjones.com/environment/2014/03/british-columbia-carbon-tax-sanity>; Beaty, Lipsey and Elgie, “The shocking truth about BC’s carbon tax: It works,” *The Globe and Mail*, July 9, 2014, <http://www.theglobeandmail.com/globe-debate/the-insidious-truth-about-bcs-carbon-tax-it-works/article19512237/>; Andy Skuce, “BC’s revenue-neutral carbon tax experiment, four years on: It’s working,” *Skeptical Science*, June 27, 2013, <http://www.skepticalscience.com/BCCarbonTax.html>.
- ¹² BDO Canada, *Tax Facts 2013: Current to June 20, 2013*, p. 12, <http://www.bdo.ca/en/Library/Services/Tax/Documents/Tax-Facts/Tax-Facts-2013.pdf>; BDO Canada, *Tax Facts 2007 current to December 31, 2007*, p. 14, <http://www.bdo.ca/en/Library/Services/Tax/Documents/Tax-Facts/Tax-Facts-2007.pdf>.
- ¹³ Turbotax, “The Least Taxing Place in Canada,” August 20, 2013, <http://blog.turbotax.ca/the-least-taxing-place-in-canada/>.
- ¹⁴ KPMJ, *Substantively Enacted Income Tax Rates for Income Earned by a General Corporation for 2013 and Beyond – As at June 30, 2014*, <http://www.kpmg.com/Ca/en/IssuesAndInsights/ArticlesPublications/TaxRates/Substantively-Enacted-Income-Tax-Rates-For-Income-Earned-By-A-Gen-Corp-2013-And-Beyond-V2.pdf>.
- ¹⁵ Tax Foundation, *State Corporate Income Tax Rates: 2000-2014*, <http://taxfoundation.org/article/state-corporate-income-tax-rates>.
- ¹⁶ Mark Lee, *Building a Fair and Effective Carbon Tax to Meet BC’s Greenhouse Gas Targets*, Submission to the BC Carbon Tax Review, Canadian Centre for Policy Alternatives, BC Office, August 2012, pp. 2-4, http://www.policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2012/09/CCPA-BC_Carbon-tax-review-submission.pdf.
- ¹⁷ Matt Horne, Letter to the Honorable Shirley Bond, Minister of Finance, Pembina Institute, August 31, 2012, pp. 6-9, <http://www.pembina.org/reports/bc-carbon-tax-review-submission.pdf>.
- ¹⁸ David Suzuki Foundation, BC Sustainable Energy Association, Dogwood Initiative, the Pembina Institute, Sierra Club of Canada, Western Canada Wilderness Committee, West Coast Environmental Law, Wildsight, *The B.C. Carbon Tax: Myths and Realities*, p. 4, http://www.davidsuzuki.org/media/news/downloads/BC_Carbon_Tax_Reality_Check.pdf.
- ¹⁹ Angus Reid Global, “BC New Democrats Hold 17-Point Lead at Start of Provincial Campaign,” April 16, 2013, <http://www.angusreidglobal.com/polls/bc-new-democrats-hold-17-point-lead-at-start-of-provincial-campaign/>.
- ²⁰ Stephen Thompson, “Christy Clark delivers election promise to freeze B.C. carbon tax rate,” April 3, 2013, <http://www.straight.com/news/368181/christy-clark-delivers-election-promise-freeze-bc-carbon-tax-rate>.
- ²¹ BC Ministry of Energy and Mines, *Electric Generation and Supply*, <http://www.empr.gov.bc.ca/EPD/Electricity/supply/Pages/default.aspx>; Energy BC, “Where Our Electricity Comes From,” <http://www.energybc.ca/map/bcenergymap.html>.
- ²² U.S. Energy Information Administration, *Washington State Profile and Energy Estimates*, <http://www.eia.gov/state/?sid=WA#tabs-4>; *Oregon State Profile and Energy Estimates*, <http://www.eia.gov/state/?sid=OR#tabs-4>.
- ²³ U.S. Energy Information Administration, “What is U.S. electricity generation by energy source?” <http://www.eia.gov/tools/faqs/faq.cfm?id=427&t=3>.
- ²⁴ Charlotte Helston, *Large Hydro*, Energy BC, <http://energybc.ca/profiles/largehydro.html>.
- ²⁵ Energy BC, “Where Our Electricity Comes From,” <http://www.energybc.ca/map/bcenergymap.html>.
- ²⁶ Nicolas Loris, Kevin D. Dayaratna, and David W. Kreuzer, *EPA Power Plant Regulations: A Backdoor Energy Tax*, Backgrounder 2863, Heritage Foundation, December 5, 2013, http://www.heritage.org/research/reports/2013/12/epa-power-plant-regulations-a-backdoor-energy-tax#_ftnref18.
- ²⁷ BC Ministry of Finance, *Tax Rates on Fuels: Motor Fuel Tax Act and Carbon Tax Act*, Bulletin MFT-CT 005, June 2014, p. 14, http://www.sbr.gov.bc.ca/documents_library/bulletins/mft-ct_005.pdf.
- ²⁸ U.S. Energy Information Administration, *Coal News and Markets*, http://www.eia.gov/coal/news_markets/.
- ²⁹ BC Ministry of Finance, “How the Carbon Tax Works,” <http://www.fin.gov.bc.ca/tbs/tp/climate/A4.htm>.

-
- ³⁰ U.S. Energy Information Administration, “Weekly U.S. Regular All Formulations Retail Gasoline Prices,” http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=emm_epmr_pte_nus_dpg&f=w.
- ³¹ Petro Canada, “Gasoline Prices Across Canada,” <http://retail.petro-canada.ca/en/fuelsavings/2139.aspx>.
- ³² Alberta Energy, Electricity Statistics: Alberta Generation in 2012, <http://www.energy.alberta.ca/electricity/682.asp>.
- ³³ “B.C. budget promises three years of surpluses,” *National Post*, February 18, 2014, <http://news.nationalpost.com/2014/02/18/b-c-budget-2014-promises-three-years-of-surpluses/>.
- ³⁴ Derek Wallbank, “U.S. Deficit Cut by Almost One-Third to \$492 Billion: CBO,” Bloomberg, April 14, 2014, <http://www.bloomberg.com/news/2014-04-14/u-s-deficit-cut-almost-one-third-to-492-billion-cbo.html>.
- ³⁵ Congressional Budget Office, *The 2014 Long-Term Budget Outlook*, 2014, <http://www.cbo.gov/publication/45471>.
- ³⁶ N. Gregory Mankiw, “A Better Tax System (Assembly Included),” *New York Times*, September 21, 2012, http://www.nytimes.com/2012/01/22/business/four-keys-to-a-better-tax-system-economic-view.html?_r=0; Irwin Stelzer, “Let’s Tax Carbon: It’s the worst form of energy policy, except for all the others that have been tried,” *Weekly Standard*, May 26, 2014, https://www.weeklystandard.com/articles/let-s-tax-carbon_792852.html?page=2.
- ³⁷ U.S. Energy Information Administration, AEO2014 Early Release Overview, December 16, 2013, http://www.eia.gov/forecasts/aeo/er/early_fuel.cfm.
- ³⁸ Robert P. Murphy, “Carbon Taxes and the ‘Tax Interaction’ Effect,” *Library of Economics and Liberty*, October 1, 2012, <http://www.econlib.org/library/Columns/y2012/Murphycarbon.html#>.
- ³⁹ Moylan.
- ⁴⁰ EPA, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Generating Units; Proposed Rule, June 18, 2014, 79 FR 34830-34958, <http://www.gpo.gov/fdsys/pkg/FR-2014-06-18/pdf/2014-13726.pdf>.
- ⁴¹ BC Ministry of Environment, *Making Progress on BC’s Climate Action Plan*, 2012, p. 8, <http://www.env.gov.bc.ca/cas/pdfs/2012-Progress-to-Targets.pdf>.
- ⁴² BC Ministry of Finance, “What Is a Carbon Tax?” <http://www.fin.gov.bc.ca/tbs/tp/climate/A1.htm>.
- ⁴³ BC Ministry of Environment, *Making Progress on BC’s Climate Action Plan*, 2012, pp. 21, 24, 29, 32, 36-39, 45-46, <http://www.env.gov.bc.ca/cas/pdfs/2012-Progress-to-Targets.pdf>.
- ⁴⁴ Ben Lieberman, “Waxman Markey Global Warming Proposal’s Other Problematic Provisions,” Web Memo 2436, Heritage Foundation, May 12, 2009, <http://www.heritage.org/research/reports/2009/05/waxman-markey-global-warming-proposals-other-problematic-provisions>.
- ⁴⁵ The Sanders-Boxer draft legislation is available at <http://www.sanders.senate.gov/imo/media/doc/0121413-ClimateProtectionAct.pdf>.
- ⁴⁶ The Waxman-Whitehouse draft legislation is available at <http://democrats.energycommerce.house.gov/sites/default/files/documents/Bill-Text-Discussion-Draft-Carbon-Pollution-Fee-2013-3-12.pdf>.
- ⁴⁷ Buzzy Cramer, “Henry Waxman: Carbon Tax Is Best ‘Legislative Option’,” *Buzz Feed News*, February 1, 2013, <http://www.buzzfeed.com/rubycramer/henry-waxman-carbon-tax-is-best-legislative-opti#6ajhou>.