Carbon pricing in Washington

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By Yoram Bauman, PhD
University of Washington

Abstract: Many economists have argued for reducing climate-changing emissions with revenue-neutral carbon pricing, such as a carbon tax or auctioned permit system in which revenues are largely or entirely "recycled" by reducing existing taxes. Inspired by a successful revenue-neutral carbon tax in British Columbia, this paper outlines how a similar policy could be implemented in Washington.

1. Economic background

The purpose of a carbon tax is to help correct a serious market failure by putting a price on climate-changing emissions. Without a price on carbon, we do not pay the costs we impose on society by burning fossil fuels, which contributes to climate change. A carbon tax helps "make prices tell the truth," while at the same time providing economic incentives to reduce fossil fuel use and develop new energy-efficient technologies."

With most forms of taxation, raising $1 in revenue costs the economy more than $1 because of compliance costs, tax-induced distortions in economic activity, and other impacts that economists call "deadweight losses." The traditional graph of deadweight losses is shown on the left side of Figure 1: because of the tax, some transactions (those in yellow) *do not* take place even though buyers' marginal benefit exceeds sellers' marginal cost.

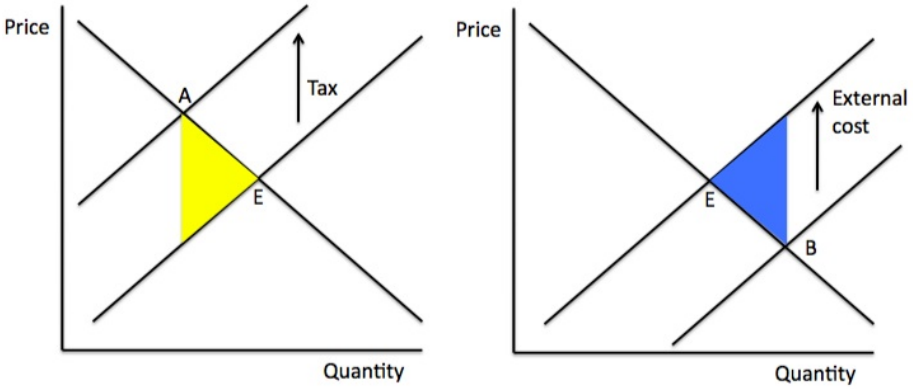


Figure 1: The market on the left shows the deadweight loss from a sales tax or other traditional tax; the market on the right shows the deadweight loss from externalities associated with carbon emissions. In both cases point E is the efficient outcome.

Contact: Eric de Place, Sightline Institute • 206-447-1880 x105 • eric@sightline.org

A related story can be told about markets for fossil fuels that exhibit *negative externalities* such as those associated with climate change, local air pollution, traffic congestion, or natural security considerations. The traditional graph of deadweight losses in this case is shown on the right side of Figure 1: because of the *lack* of a carbon price, some transactions (those in blue) *do* take place even though the social marginal benefit is less than the social marginal cost. In this case a carbon price would improve social welfare *even if the government had no need for revenue*.

The idea of revenue-neutral tax reform is to turn two wrongs into a right by reducing taxes on "goods" that society wants more of (such as employment, income, and investment) and increasing taxes on "bads" that society wants less of (such as carbon emissions). Such a tax shift provides two benefits, sometimes called a "double dividend": one benefit comes from eliminating the deadweight losses associated with the existing tax system, the other from eliminating the deadweight losses associated with external costs such as those associated with fossil fuels. The traditional graphs of these benefits are shown in green in Figure 2. (These shaded areas, and the benefits they represent, are of course identical to the shaded areas in Figure 1.)

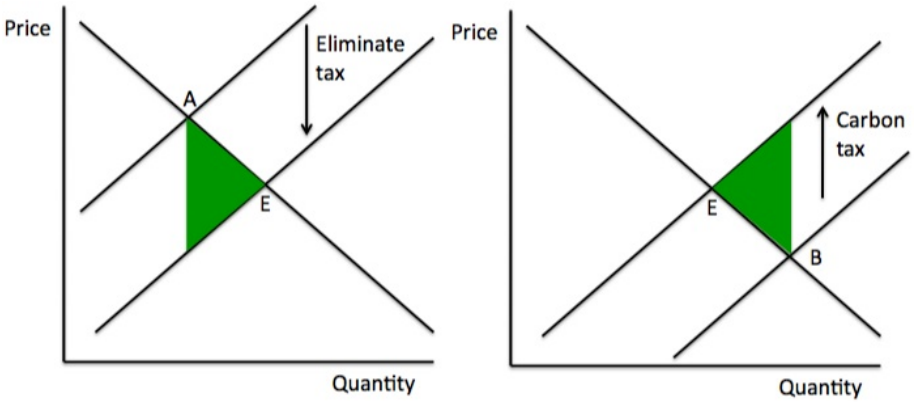


Figure 2: The market on the left shows the benefit associated with eliminating the traditional tax; the market on the right shows the benefit associated with using a carbon price to address externalities. The efficient equilibrium (point E) is reached in both cases.

The economic argument for revenue-neutral tax reform is widely accepted among economists across the political spectrum, as shown by the Pigou Club, a list of prominent economists and others who support the idea. (Arthur Pigou, an early 20th century economist, was the first to study the economics of taxing externalities.)

2. The British Columbia experience

In 2008, British Columbia implemented a revenue-neutral carbon tax that is among the best climate change policies in the world. Here are the key features of the BC policy:

- *The tax is levied "upstream"*, at the point of entry of coal, oil, or natural gas into the province's economy.

- *The tax is being phased in*, starting at Can$10/tonne of CO2 in July 2008 and rising Can$5/year through July 2012, at which point it levels off at Can$30/tonne of CO2. (As detailed below—see Section 3.3 "Carbon tax impact on fossil fuel prices"—Can$30/tonne of CO2 roughly translates to US$0.30/gallon of gas and US$0.03/kWh of coal-fired power.

- *Revenue from the tax is used to reduce existing taxes in BC.* Original estimates were that the $1.8 billion revenue raised over the first 3-year period would be returned as follows: 42% to reduce personal income taxes on the first $70,000 in income; 22% to reduce corporate income taxes; 14% to reduce small business taxes; and 21% for payments to offset impacts on low-income households.[1]

- *The tax applies broadly to almost all fossil fuel emissions in the province,* though there are several exceptions. Jet fuel is only taxed for flights entirely within the province, i.e., with both take-off and landing in BC. There is a similar exemption for marine fuel.[2] Also not taxed is the carbon content of imported goods (notably electricity imported from elsewhere) or the carbon content of fossil fuels that are extracted in BC and then exported. The tax also does not apply to non-fossil-fuel emissions from waste, agriculture, forestry, or "process emissions" associated with activities such as cement manufacturing.[3]

The politics surrounding the BC carbon tax are also interesting. The tax was implemented by premier Gordon Campell's right-of-center Liberal Party, and subsequently opposed by the left-of-center New Democratic Party (NDP) during an election campaign in 2009. Campbell's Liberal Party was re-elected after splitting endorsements from the environmental community, which normally supports the NDP. Polling suggests that the carbon tax was unpopular but did not swing voters to the NDP. Perhaps the best interpretation is that "a politician who was brave enough to put a price on carbon didn't lose an election in which the policy became a hot-button issue."

3. Carbon pricing in Washington State: A proposal

The remainder of this document describes a BC-style carbon tax of $30/ton of CO2 for Washington.

3.1 Caveats

[1] BC Ministry of Finance, "Backgrounder: B.C.'s Revenue Neutral Carbon Tax," http://www.bcbudget.gov.bc.ca/2008/backgrounders/backgrounder_carbon_tax.htm.
[2] BC Ministry of Finance, Tax Notice, "Non Registered Air or Marine Carbon Tax," January 2010, http://www.sbr.gov.bc.ca/documents_library/notices/Non_Registered_Air_Marine_Carbon_Tax.pdf.
[3] BC Ministry of Environment, "British Columbia Greenhouse Gas Inventory Report," http://www.env.gov.bc.ca/cas/mitigation/ghg_inventory/index.html.

- We use 2004 data, and we use short tons rather than metric tonnes.
- Since carbon taxes and auctioned cap-and-trade systems are similar in terms of their economic impacts, a similar description would apply to an auctioned cap-and-trade system that covered the same carbon sources and produced a permit price of $30/ton of CO2.

For convenience, this section considers a tax of $30/ton of CO2, but an exact equivalence with the BC policy would require two relatively minor unit conversions. First, what Americans know as 1 ton (a.k.a. 1 short ton) is 0.9072 metric tonnes, so the BC tax of Can$30 per metric ton translates to Can$27.22 per short ton. Second, the exchange rate has traditionally favored the U.S. dollar, with recent rates as high as Can$1.20 per US dollar. The currencies are currently at near-parity, but if the rate were to return to Can$1.20 per US dollar, a tax of Can$30 per metric ton (Can$27.22 per short ton) would equal US$22.68 per short ton.

3.2 Greenhouse gas emissions: about 85m tons from fossil fuel CO2 in 2004

Greenhouse gas emissions in Washington in 2004 totaled about 100 million (short) tons of CO2-equivalent, of which about 85% were related to fossil fuel CO2. Not only are CO2 emissions from fossil fuel burning the majority of total emissions, but they are the easiest emissions to track and tax.

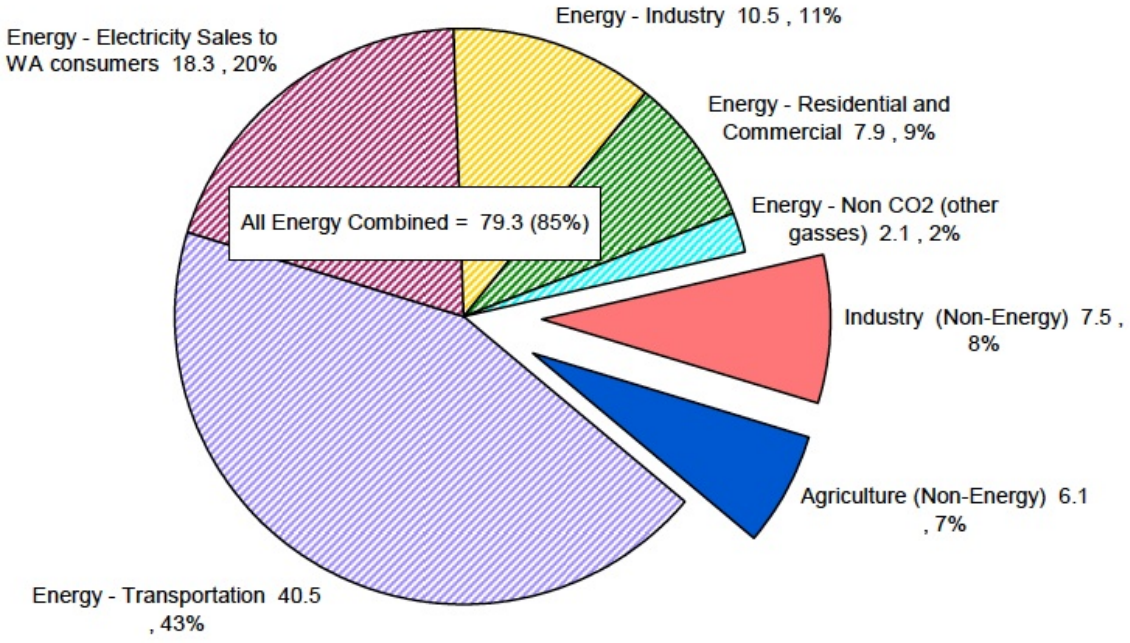


Figure 3: GHG emissions in Washington State in 2004. The absolute amounts (e.g. "40.5" for transportation) are in metric tons, so focusing on the percentages is the most useful for comparison purposes. (Source: CTED, "Washington's Greenhouse Gas Emissions: Sources and Trends" (December 2006, revised 2/12/07).)

3.3 Carbon tax impact on fossil fuel prices

A tax of $30/ton CO2 is roughly equal to:

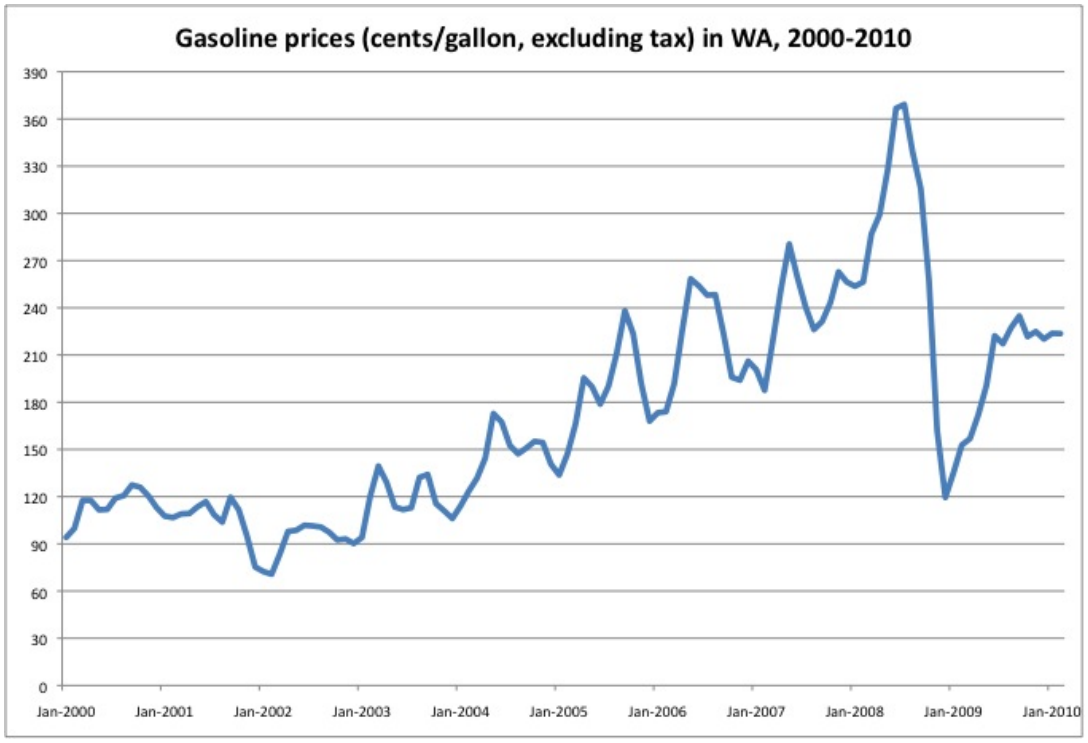
- $0.30 per gallon of gasoline, diesel, or jet fuel;
- $0.03 per kWh of coal-fired power assuming subbituminous coal, which is the kind used in Washington State (or—equivalently—about $3/mbtu or $60/ton); and
- $0.015 per kWh of gas-fired power (or $1.81 per thousand cubic feet of natural gas.)

More precise numbers (based on US Energy Information Administration data) are shown in Figure 4 below.

Fossil fuel	Carbon tax	Current price
Motor gasoline	$0.29/gallon	$2.24 pre-tax, or $2.804 including $0.38 state tax and $0.184 federal tax. (Jan 2010)
Diesel oil	$0.34/gallon	Pre-tax price similar to motor gasoline
Jet fuel	$0.32/gallon	Pre-tax price similar to motor gasoline
Natural gas	$1.81/thousand cubic feet (mcf), or $1.76/mbtu, or about $0.0176 per kWh.	$7.20/mcf city gate, $11.50 residential, $10.22 commercial, $9.69 industrial, $7.85 electric power. (Jan 2010).
Coal (sub-bituminous)	$56/ton, or $3.19/mbtu, or about $0.0319 per kWh.	WA data not available because there's only one firm; U.S. average price "delivered to electric power sector" is $2.21/mbtu (Jan 2010) and "average open market sales price" is $32/ton (2008).

Figure 4: Impacts on fossil fuel prices of a tax of $30/ton of CO2.

Figure 5, below, shows prices for motor gasoline and natural gas from 2000-2010; the distance between gridlines on these graphs indicates the impact of a carbon tax.



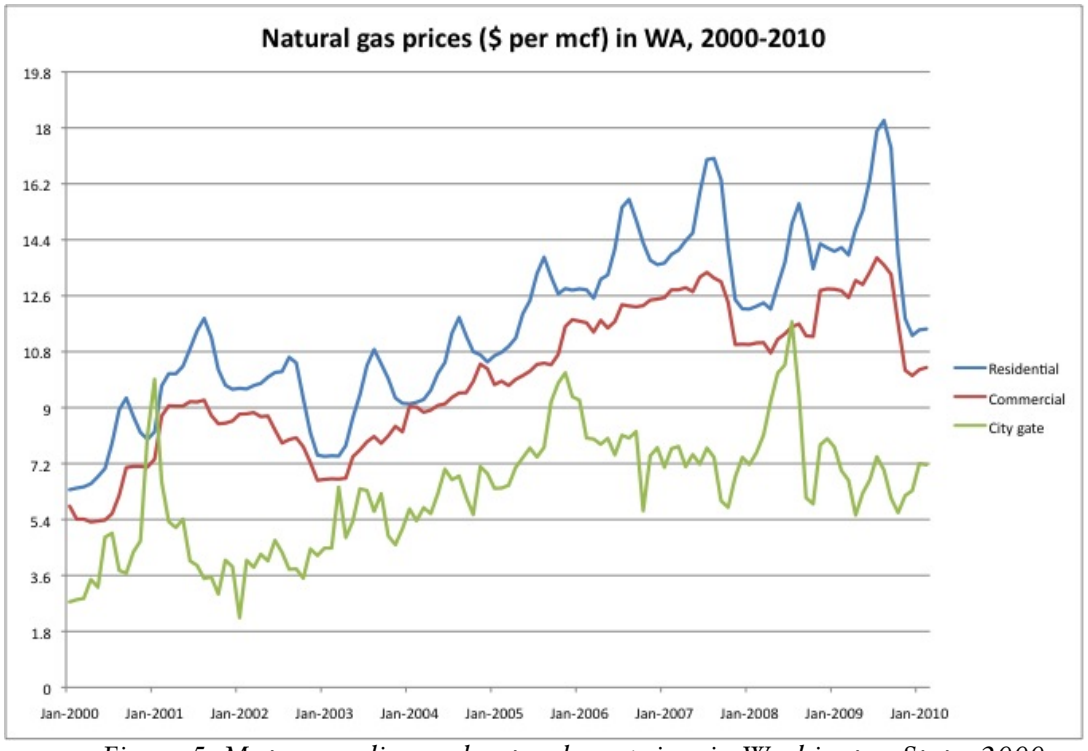


Figure 5: Motor gasoline and natural gas prices in Washington State, 2000-2010. In each graph, the space between gridlines indicates the impact of a carbon tax of $30/ton of CO2. Source: EIA data for motor gasoline and natural gas.

Price data for coal purchased in Washington are not included in Figure 5 because this information is not made publicly available because there is only a single consumer, the TransAlta facility in Centralia. However, it is indisputable that a carbon tax of $30/ton of CO2 would substantially increase the price of coal and the price of coal-fired power: a tax equivalent to $0.03/kWh would approximately double the marginal cost of generating electricity from coal. (As noted in the next section, however, this tax would probably not price coal-fired power out of the market in Washington.)

3.3 Carbon tax impact on fossil fuel consumption

Estimating the impact of a carbon tax on fossil fuel consumption is difficult given the variability of fossil fuel prices and the uncertainties of economic growth and technological progress. However, we can say four things with certainty. The first is obvious but nonetheless important: *a carbon tax will reduce fossil fuel consumption*. The uncertainty is about the magnitude of the change, not the direction of the change.

Second, *the short-run impacts of a $30 carbon tax are likely to be modest*. According to a 2008 study by the Congressional Budget Office, "a 10 percent increase in the retail price of gasoline (e.g., an increase of $0.30/gallon from a base price of $3.00) would reduce consumption by about 0.6 percent in the short run." Impacts on consumption of other fossil fuels is likely to be similarly modest.

Third, *the long-run impacts of a carbon tax are likely to be more significant* than the short-run impacts. This is true as a matter of economic theory and, reassuringly, the CBO estimates that "a sustained increase of 10 percent in price eventually would reduce gasoline consumption by about 4 percent." Ultimately, long-run impacts are likely to depend on highly uncertain factors that include fossil fuel prices, technological change, and changes in national policies.

Fourth, *consumption is likely to change gradually, with the possible exception of coal*. The possible exception for coal concerns the shut-down price for the Centralia plant, i.e., the carbon price at which electricity from that plant will be priced out of the market. (Note that this shut-down price is based only on *marginal* costs and is therefore considerably lower than the price point that would determine whether it would be profitable to build a *new* coal plant.) The shut-down price depends on the price of coal over time and on the price of alternatives (notably natural gas) as well as technological developments in renewable energy.[4]

[4] As an illustrative example, imagine base fuel costs of $0.03/kWh for coal and $0.07/kWh for natural gas. A carbon tax would raise fuel costs per kWh twice as much for coal as for natural gas, so equating marginal costs would require a carbon tax of about $80/ton CO2 (about $0.08/kWh coal, $0.04/kWh natural gas). As an additional complication, note that new generation (e.g., natural gas) might need to account for the fixed costs of building a new power plant as well as the marginal costs of paying for fuel. So the correct comparison for determining the shut-down price for coal is the *marginal* cost of

3.4 Revenue generation: about $2.2 billion per year

From Figure 6, we see that fossil fuel emissions (including jet fuel, other petroleum, and imported electricity) total 83m tons of CO2, so a tax on fossil fuel emissions of $30/ton of CO2 would generate $2.5 billion/year if emissions stayed at 2004 levels. A more conservative assumption (in terms of revenue generation) would be a 10% reduction in emissions, in which case the tax would generate $2.2 billion/year.

Source	*Short tons of CO2-equivalent (2004)*
Motor gasoline	26m tons (also about 26% of total)
Natural gas	15m tons, mostly for industrial and heating
Coal	11m tons, all from electricity generation at Centralia
Diesel fuel	11m tons, mostly for transportation, some for home heating
Jet fuel	8m tons
"Other petroleum"	7m tons, mostly petroleum coke and still gas
Imported electricity	5m tons, estimated from Fuel Mix Disclosure reports
Non-fossil fuel emissions	15m tons, roughly evenly divided between industrial process emissions and agricultural emissions.

Figure 6: GHG emissions in Washington State in 2004, in short tons. Source: CTED, "Washington's Greenhouse Gas Emissions: Sources and Trends" (December 2006, revised 2/12/07) and EIA SEDS.

One challenge from a public finance perspective is that the long-term stability of carbon tax revenues are uncertain. Revenues could rise because of population and economic growth or fall because of increased conservation and use of alternative energy; inflation could also reduce the real value of revenue because—like the BC carbon tax—the tax in our proposal is not adjusted for inflation. This makes carbon tax revenue *qualitatively different* from most other existing taxes (sales taxes, property taxes, B&O taxes), which because of inflation and economic growth have all grown at an annual average of about 5% in nominal terms.

Having said this, it is worth noting that it would probably be possible to structure a carbon tax that would achieve nominal revenue growth of 5% per year for several decades; for example, a combination of *real* carbon tax rates rising at 5% per year and fossil fuel use falling at 2% per year would generate nominal revenue growth of 5% per year. But such a proposal would be different than the flat $30/ton carbon tax we discuss in this paper, and the bottom line is that revenue from our proposed carbon tax would *not* grow at 5% per year, and in fact would probably fall as a result of reductions in fossil fuel use.

The important conclusion here is that replacing existing taxes (which generate revenue growth averaging 5% per year) with a carbon tax (which does not) may create serious concerns about revenue stability over time. A more promising

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coal versus the *levelized* cost of natural gas. Fixed costs are relatively low for natural gas plants, but in our illustrative example this would mean that a carbon price on the order of $100/ton CO2 could be required before it would be economical for new natural gas plants to supplant coal.

approach is therefore to use carbon tax revenue to *rebate* existing taxes; such an approach would allow tax rebates to rise and fall in line with carbon tax revenue and would not jeopardize the goal of revenue neutrality.

A final point is in order: the concept of "revenue neutrality" is rather difficult to define. Although recycling 100% of carbon tax revenues into tax rebates would seem to be "revenue-neutral", this may not be the case because, for example, government entities such as schools would not see the benefits of property tax rebates (they do not pay property taxes), but would see the costs of carbon taxes because of higher fossil fuel prices. Defining "revenue-neutral" as a policy that doesn't change the *level of service* provided by government might therefore entail recycling somewhat less than 100% of carbon tax revenues. A related difficulty occurs in the context of federal government activities, which would probably also become more costly as a result of a tax shift; since government (at all levels) accounts for about 35% of GDP, the term "revenue-neutral" could plausibly be applied to recycling anywhere from 65%-100% of revenues into tax reductions.

3.5 Revenue recycling: one proposal

This proposal assumes carbon tax revenues of $2.2 billion per year, but this assumption is not crucial in terms of the structure of the proposal.

- Dedicate 50% of the revenue ($1.1 billion per year) to **property tax rebates**. This could be done either by rebating part of the state portion of the property tax or by a pass-through of revenue to localities to enable them to reduce local property taxes. (Such policies exist in other states, e.g., the $670m School Levy Tax Credit in Wisconsin[5] or the $113m Property Tax Reduction Fund supported by the state lottery in South Dakota.[6]) In 2008 property taxes in Washington generated about $8 billion[7] (of which about $2 billion was the state portion[8]), so a reduction of $1.1 billion is equivalent to a 14% reduction in total property taxes or a 55% reduction in the state portion of the property tax.

- Dedicate 25% of the revenue ($550 million per year) to an across-the-board **rebate of the B&O tax**. In 2008 the state B&O tax generated about $3 billion,[9] so the rebate would amount to an 18% reduction in state B&O taxes. (As discussed below, $35-65 million per year could instead be targeted for an increase in the small business B&O tax credit.) Note that businesses will also

[5] State of Wisconsin, "Annual Fiscal Report: Budgetary Basis," 2009, http://www.doa.state.wi.us/docview.asp?docid=7830&locid=3.
[6] **Justia.com, "10-13-44 — Property tax reduction fund--Distribution of money--Tax credit payments," http://law.justia.com/southdakota/codes/10/10-13-44.html.**
[7] Washington Department of Revenue, "Property Tax Statistical Reports," http://dor.wa.gov/content/AboutUs/StatisticsAndReports/stats_proptaxstats_report.aspx.
[8] Washington Office of Financial Management, "Table 1: All Budgeted Funds: Budgeted Totals," http://www.ofm.wa.gov/budget09/summary/table01.pdf.
[9] Washington Office of Financial Management, "Table 1: All Budgeted Funds: Budgeted Totals," http://www.ofm.wa.gov/budget09/summary/table01.pdf.

benefit from the property tax rebates; the Gates Tax Structure Study Commission estimates that 42% of the incidence of property taxes falls on businesses.[10]

- Dedicate 15% of the revenue (about $330 million per year) to **offset impacts on low-income households**. This could be done primarily through the Working Families Tax Rebate (WFTR),[11] which is modeled after programs in other states that piggy-back on the federal Earned Income Tax Credit (EITC).[12] (Because Washington State does not have an income tax, the formal mechanism for the WFTR is a "sales tax rebate"; in practice, however, the program is a bump-up of the federal EITC.) The WFTR was created by the state legislature in 2008 but never funded; funding would provide assistance to 350,000 households in Washington State. Because the WFTR is based on the federal EITC, it would primarily benefit families with children, and it would not provide any assistance for the low-income elderly or other residents of Washington State who are not eligible for the federal EITC.[13] A 2008 report by the Center on Budget and Policy Priorities suggests that assistance could also provided through LIHEAP (Low-Income Home Energy Assistance Program) and the Weatherization Assistance Program.[14]

- Dedicate 6% of the revenue ($130 million per year) to improving **K-12 math and science education**.

- Dedicate 2% of the revenue ($45 million per year) to **clean energy research** at state universities, and perhaps also the federal Pacific Northwest National Lab.

- Dedicate 2% of the revenue ($45 million per year) to **green job training programs** at community colleges in Washington.

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[10] Washington State Tax Structure Study Committee, "**Tax Alternatives for Washington State: A Report to the Legislature,**" November 2002, http://dor.wa.gov/content/aboutus/statisticsandreports/wataxstudy/final_report.htm#Complete Report.
[11] Stacey Schultz and Jeff Chapman, "The Working Families Tax Rebate," Washington Budget and Policy Center, April 3, 2009, http://budgetandpolicy.org/schmudget/2009schmudgetdocuments/wftr040309.pdf.
[12] State EITC Online Resource Center, "50 State Resource Map," http://www.stateeitc.com/map/index.asp.
[13] Stacey Schultz and Jeff Chapman, "The Working Families Tax Rebate," Washington Budget and Policy Center, April 3, 2009, http://budgetandpolicy.org/schmudget/2009schmudgetdocuments/wftr040309.pdf.
[14] Robert Greenstein et al., "Designing Climate-Change Legislation That Shields Low-Income Households From Increased Poverty and Hardship," Center on Budget and Policy Priorities, May 9, 2008, http://www.cbpp.org/files/10-25-07climate.pdf.

3.6 Revenue recycling: other options

- *Sales tax reductions:* The state sales tax currently generates $8 billion per year,[15] so dedicating 50% of the carbon tax revenue ($1.1 billion) to sales tax reductions would allow for the state sales tax rate to be reduced from 6.5% to 5.6%. As discussed in Section 3.4, however, a 0.9-percentage-point reduction in the state sales tax would not be revenue-neutral over the long run. One alternative would be to make annual estimates of carbon tax revenues and adjust sales tax reductions accordingly. Another alternative would be to offer an income-based rebate (similar to the WFTR discussed above) to everyone in Washington, but because the tax rebate would not be directly tied to individual behavior this approach would not provide the "double dividend" discussed in Section 1.

- *Small business B&O tax credit:* A relatively small amount of revenue could be used to increase the small business B&O tax credit. Based on calculations from the Economic Opportunity Institute, doubling the tax credit would increase the percentage of small businesses exempt from B&O taxes from the current 48% to 61%, at a cost of $36 million per year. (A tripling would exempt 73% of businesses, at a cost of $65 million per year). Note that a doubling of the small business B&O tax credit (and indexing this credit to inflation) was unanimously recommended by the Gates Tax Structure Study Commission in 2002.[16] Also note that the I-1077/1098 income tax ballot measure that may be on the November 2010 ballot includes a provision to increase the small business B&O tax credit by a factor of about 10, which would exempt 88% of businesses at a cost of $260 million per year.[17]

- *Energy efficiency tax rebates:* Some revenue could be dedicated to rebating sales, use, and perhaps even property taxes associated with clean energy projects and energy efficiency projects, as with Oregon's Business Energy Tax Credit.[18] Perhaps $400 million per year or more of such tax rebates could be used by businesses in Washington, and additional rebates could be provided to households for similar activities.

3.7 Regressivity

The regressivity of carbon taxes is debated—depending, for example, on whether you are considering *lifetime* income or only *yearly* income. But in terms of yearly

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[15] Washington Office of Financial Management, "Table 1: All Budgeted Funds: Budgeted Totals," http://www.ofm.wa.gov/budget09/summary/table01.pdf.
[16] Washington State Tax Structure Study Committee, "**Tax Alternatives for Washington State: A Report to the Legislature,**" November 2002, http://dor.wa.gov/content/aboutus/statisticsandreports/wataxstudy/final_report.htm#Complete Report.
[17] "Yes on 1098," http://yeson1098.com/.
[18] Roger Valdez, "A Better BETC: Improving Oregon's Business Energy Tax Credit," Sightline Institute, February 4, 2010, http://www.sightline.org/research/green-collar-jobs/BETC.pdf.

income there no doubt that carbon taxes are regressive, meaning that they claim a higher percentage of income from lower-income households than from higher-income households. Basic calculations based on data from the US Bureau of Labor Statistics suggest that carbon taxes are even more regressive than sales taxes.[19]

Federal estimates indicate that a set-aside of 14% of carbon tax revenue "would be enough to hold the poorest fifth of households harmless and partially offset the costs for those with modestly higher incomes."[20] Similar conclusions can be drawn from a BC analysis by the Canadian Centre for Policy Alternatives,[21] and from our own preliminary calculations based on BLS data.

4. The road ahead

The next six months are likely to reveal a great deal about the future of carbon pricing in the United States:

- *Federal climate policy:* This Congress may be the last chance for several years to enact carbon pricing at the federal level. It is widely believed that the November 2010 elections will move House and Senate seats away from Democrats and toward Republicans, who are almost uniformly hostile to the idea of cap-and-trade (or, as they rather aptly call it, "cap and tax"). Whether the 2010 Congress will enact carbon pricing remains to be seen, but the conventional wisdom is that the American Power Act (the Kerry-Lieberman bill) faces long odds in the Senate. (The House of Representatives already passed cap-and-trade legislation, approving the Waxman-Markey bill by a vote of 219-212 in June of 2009; the Washington delegation split along party lines with the exception of Dave Reichert, who voted Yes.) It is worth noting that federal action continues on other fronts, such as fuel economy standards, and EPA regulation under the Clean Air Act. There are no serious federal discussions about a carbon tax.

- *Western Climate Initiative:* The major news here will come in November from California, which in 2006 passed a law known as "AB 32" requiring greenhouse gas reductions, including the development of a cap-and-trade program.[22] In

[19] US Bureau of Labor Statistics, "Table 1. Quintiles of income before taxes: Average annual expenditures and characteristics, Consumer Expenditure Survey, 2005," ftp://ftp.bls.gov/pub/special.requests/ce/standard/2005/quintile.txt.
[20] Federal estimates include Robert Greenstein et al., "Designing Climate-Change Legislation That Shields Low-Income Households From Increased Poverty and Hardship," Center on Budget and Policy Priorities, May 9, 2008, http://www.cbpp.org/files/10-25-07climate.pdf; and joint comments submitted to the Western Climate Initiative by a number of organizations, including the Washington State Budget and Policy Center, http://www.ocpp.org/2008/20080813WCI-SFAI-August_fnl.pdf.
[21] Marc Lee and Toby Sanger, "Is BC's Carbon Tax Fair? An Impact Analysis for Different Income Levels," Canadian Centre for Policy Alternatives," October 2008, http://www.policyalternatives.ca/sites/default/files/uploads/publications/BC_Office_Pubs/bc_2008/ccpa_bc_carbontaxfairness.pdf.
[22] California Environmental Protection Agency, "Assembly Bill 32: Global Warming Solutions Act," http://www.arb.ca.gov/cc/ab32/ab32.htm.

November 2010, voters are likely to be faced with a ballot measure proposing to suspend AB 32 "until California's unemployment rate drops to 5.5 percent or less for four consecutive quarters." The likelihood of the measure passing is unclear, but its passage would be a blow to the WCI, which is already struggling: legislatures in Utah and Arizona have come close to removing themselves from the program; legislatures in Washington and Oregon have declined to pass enabling legislation in 2009; and—as at the federal level—progress may become even more difficult after the November 2010 elections. (Amidst all this negative news concerning the WCI, one piece of positive news is that Governor Gregoire issued a strong executive order at the conclusion of the 2009 legislative session authorizing many of the elements of the WCI and directing the state to continue work on the program.)

In short, there is a serious possibility that federal and/or regional climate policy will be in a state of disarray on November 3, 2010. If this happens, Washington will be uniquely positioned to lead the way forward with a carbon tax alternative.

One unique advantage is geography: state-level climate policy has to be mindful of "leakage" issues, and Washington is fortunate to have one border facing the Pacific Ocean and another border facing British Columbia, which already has a carbon tax. In addition to helping to prevent leakage, BC's carbon tax will be valuable both because it provides a "neighborhood example" of how carbon taxes actually work in practice and because establishing a geographic carbon tax bloc in the Pacific Northwest will help push the idea into neighboring states and provinces—especially Oregon—and into the national and international spotlight.

A second advantage for Washington is the presence of green-minded conservatives, such as Representative Reichert, one of only 8 Republicans to vote for the Waxman-Markey bill, and Todd Myers, the environmental director of the free-market Washington Policy Center who has developed a carbon tax proposal and co-authored a 2009 op-ed calling for a revenue-neutral tax of $30 or perhaps even $50 per ton CO2.[23] There is also potential business support, including Puget Sound Energy, which has publicly called for a carbon tax.[24] And of course Washington is home to many environmentally-oriented voters and to organizations such as Sightline, Climate Solutions, Washington Environmental Council, the Sierra Club, and many other organizations that support carbon pricing.

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[23] Todd Myers, "Promoting Personal Choice, Incentives, and Investment to Cut Greenhouse Gas Emissions," Washington Policy Center, April 2008, http://www.washingtonpolicy.org/Centers/environment/PolicyBrief/08_Myers_CarbonTax.pdf; and Bruce Flory and Todd Myers, "Replace State Property Tax With Carbon Tax for Climate Action," *Seattle Times*, June 29, 2009, http://seattletimes.nwsource.com/html/opinion/2009396163_guests29flory.html.

[24] Kimberly Harris, Executive Vice President and Chief Resource Officer, Puget Sound Energy comments to the Western Climate Initiative, August 13, 2008, http://www.westernclimateinitiative.org/archived_comments/98296.doc ("we reaffirm our support for a *carbon tax* program"); and CEO Steve Reynolds quotes in Tim Newcomb, "What Price Gas?" *Seattle Business*, May 2010, http://seattlebusinessmag.com/article/what-price-gas.

In order to take advantage of its unique position, leaders in Washington should take action by engaging legislators and stakeholders in a discussion about carbon pricing proposals such as the one outlined in this paper. Carbon pricing should have a prominent position in the updated State Energy Strategy that the Commerce Department is launching this summer. And leaders should lay the groundwork for bringing a proposal to the legislature in 2011. If national and regional cap-and-trade efforts stall in the wake of November 2010, adopting a version of the BC carbon tax may provide the quickest path to sound policy for Washington.

Contact: Eric de Place, Sightline Institute • 206-447-1880 x105 • eric@sightline.org