Our Skies, Our Schools, and Our Other Shortcomings:
Why Washington Needs a Revenue-Positive Carbon Tax

Washington State faces a triple, intersecting threat from climate change, inadequately funded education, and rising income inequality. To address this threat, we will need a carbon policy that is capable of reducing greenhouse gas emissions, raising revenue for the state, and closing the wealth gap. This spring, as the Washington Legislature considers Democrat-sponsored companion bills for a statewide revenue-positive cap-and-trade system (HB 1314 & SB 5283), the nonprofit group Carbon Washington finalizes its draft language for an initiative to the people concerning a revenue-neutral carbon tax. The legislative bills would create a carbon market by selling allowances for carbon emissions. Carbon Washington’s plan would tax emissions and rebate sales tax. Both of these measures could help to reduce greenhouse gas emissions, and the cap-and-trade bill could raise revenue. In one sense, we are lucky to have a choice between two desperately-needed greenhouse-reduction plans. However, neither of these two policy proposals is capable of addressing the triple, intersecting crisis as well as a revenue-positive carbon tax can.

A revenue-positive carbon tax has the benefits of reducing carbon emission, generating revenue, and revamping our state tax regime, all of which could help address the triple crisis and live up to our aspirations expressed in the Washington Environmental Policy Act (SEPA). Such a tax would foster the general welfare by decreasing ambient air pollution, thereby promoting overall public health; it would fulfill social and economic requirements of both present and future generations of Washington citizens by addressing the present revenue and education crisis. Crafted with an eye toward reforming our regressive tax structure, it could also reverse our alarming trend of increasing social inequality. This article surveys the interaction between climate change, inadequate school funding, and social inequality. It compares the options available for ad-

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dressing these issues before concluding that Washington State needs a holistic policy that can operate on multiple fronts: ecological, educational, and economic.

Fifteen years into the new millennium, our fair state may be known for progressive laws relating to recreational marijuana and marriage equality. However, our record on the environment, education, and income inequality is far from strong. Despite our fortunate access to relatively low-carbon hydroelectric power, our state continues to import 13% of our electricity from Montana’s coal-burning Colstrip plant (Seattle Times, 2014). Even if we were to minimize imported electricity, our hydropower is premised on ecologically-dubious damming practices and depends on reliable snowpack. Such snowpack is, in an age of global warming, increasingly unpredictable. Our lack of strategy to confront our environmental issues spells big trouble for our state. Governor Inslee acknowledged that climate change could cost Washington $10 billion per year beginning around 2020 (Inslee, 2014).

Climate change will damage our fisheries, agriculture, and human health. The warming of the atmosphere can create a lack of predictability in weather conditions, disastrous pest dynamics affecting agriculture, lag effect for planting cycles, and CO2 fertilization (some plants grow better with added CO2.) Further, we face infrastructure issues as the sea level rises. Parts of Seattle, for example, will be underwater and those engines of our economy, the ports, might struggle to adjust. Ocean acidification affects coastal fishing, shellfish, and clamming, not to mention recreation. All of these climate change effects have economic consequences. Our response to this threat is thus far inadequate.

Further, as made clear by McCleary v. State, Washington is not meeting its mandate to adequately fund public education. For years, the state legislature forced school districts to enact local levies to fund operations. McCleary revisited the existing understanding that “compliance with Const. art. 9, ss 1 and 2 can be achieved only if sufficient funds are derived, through dependable and regular tax sources…” (Seattle School District No. 1 of King County. v. State 1978). In other words, the state has a duty to fund basic education by means of a dependable and regular tax source. According to the most current estimates, our budget shortcoming is calculated round $6 billion (Blankinship, 2015). This is one reason a revenue-neutral carbon tax is preferable to a cap-and-trade system: It can help us comply with our Constitutionally-mandated method of funding public education. A cap-and-trade model would not be a dependable and regular tax source, since it would be an auction—not a tax—and it would vary with the market.

McCleary emphasizes the need for a new tax in Washington, but there is one other
compelling reason to create a carbon tax: It is an opportunity for progressive tax reform. Washington’s tax scheme is known as the nation’s “most regressive tax structure,” in large part owing to the state’s high sales tax (ITEP, 2015). Regressive tax structures are characterized by requiring lower-income groups to pay disproportionately more of their income to taxes than higher-income groups. In Washington, the lowest quintile of income pays 16.8% of income as taxes, while the top 1% pays 2.4% (ITEP, 2015). The result is that the rich retain more wealth and poor have a harder time escaping poverty. Income inequality is a persistent concern. According to the most recent American Community Survey, Washington was among 15 states with a rising GINI coefficient (Chokshi, 2014). Our rising income gap combined with our perennially regressive tax system causes a revenue crisis in the state. The majority of wealth is owned by the top 20% of the income bracket, who pay an inadequate percentage of their income in taxes. The consequence of this dynamic is that for the past twenty years, state taxes as a percentage of state GDP have declined (OFM, 2012).

There is a nexus between climate change, education, and income inequality. True, just as both wealthy and poor countries will be affected by anthropogenic climate change (Stern, 2007), in Washington State both wealthy and poorer demographics will be affected. However, we can expect the loss to be borne primarily by low-income Washingtonians. Think of how extreme weather events such as Hurricane Katrina and Hurricane Sandy displaced poorer residents. Take another example: how local levies to fund education result in wealthier communities with better schools than poorer communities. Finally, consider Joseph Stiglitz’s arguments about the incalculable costs of social inequality. He writes, in terms as applicable to our state as they are to our country:

“There are two visions of America a half century from now. One is of a society more divided between the haves and the have-nots, a country in which the rich live in gated communities, send their children to expensive schools, and have access to first-rate medical care. Meanwhile, the rest live in a world marked by insecurity, at best mediocre education, and in effect rationed health care—they hope and pray they don’t get seriously sick. At the bottom are millions of young people alienated and without hope. I have seen that picture in many developing countries; economists have given it a name, a dual economy, two societies living side by side, but hardly knowing each other, hardly imagining what life is like for the other. Whether we will fall to the depths of some countries, where the gates grow higher and the societies split farther and farther apart, I do not know. It is, however, the nightmare towards which we are slowly marching” (Stiglitz, 2012).
In short, there is a lot of work to be done.

This is not to say that our ambitions are too low or our intentions necessarily corrupt. We have legal controls in place. Indeed, Washington State is legally required to protect the environment. In 2013, Court of Appeals Judge Thomas Bjorgen expressed how, as a matter of State law, “each generation is trustee of the environment for succeeding generations” (Lands Council v. Washington State Parks Recreation Commission 2013). Indeed, the legislature and all state agencies are bound by the Declaration of the SEPA, which declares “each person has a fundamental and inalienable right to a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment” (RCW 43.21C.020(3)). Currently, a discussion is emerging around a proposal for an amendment to the Washington State Constitution that would incorporate an affirmative right to a healthy environment (Cohen, 2015).

Short of amending the Constitution—which would be a welcome move—Washington could do more follow the spirit of SEPA. SEPA, which was enacted in 1971, serves now to obligate environmental studies of proposed legislation (Rodgers, 1984). However, SEPA has never been just about the environment – it has all along contemplated the overall welfare and social health of future generations. RCW 43.21C.020(1) declares the three aims of the SEPA: to “(a) foster and promote the general welfare; (b) create and maintain conditions under which human beings and nature can exist in productive harmony; and (c) fulfill the social, economic, and other requirements of present and future generations of Washington citizens.” Considering the triple crisis outlined above in light of SEPA’s mission, our shortcomings in environmental policy are obvious.

Governor Inslee has demonstrated a political will to change. He has committed Washington to “set binding limits on carbon emissions and deploy market mechanisms to meet those limits” (PCAPCE, 2014). In promulgating a better carbon policy, Governor Inslee and Christy Clark, the Premier of British Columbia, could make good on their promise in the Pacific Coast Action Plan on Climate and Energy to “link programs for consistency and predictability and to expand opportunities to grow the region's low-carbon economy” (PCAPCE, 2013). In April 2014’s Executive Order 14-04, Governor Jay Inslee expressed interest in developing a “market-based” plan to reduce greenhouse gas emissions in Washington State. More specifically, by 2020, the State aims to have twenty-five thousand “green economy jobs” (RCW 43.330.310) and to have reduced overall greenhouse gas emissions to 1990 levels (RCW 70.235.020).
We may have identified the problem and we may have verbal commitments to follow through. So, why isn’t our concrete environmental policy consistent with these goals? With so much at stake, can we afford anything less than the most effective policy tool at our disposal? Considering the severe discrepancy between our ambitions and our reality, revenue-positive carbon tax is really our best option.

To understand the purpose and function of a carbon tax, this article will first touch upon its basis in economic theory and then describe how it works in practice in British Columbia.

Basically, a carbon tax charges emitters like energy producers for greenhouse gas emissions, measured in carbon dioxide equivalent. In economic theory, greenhouse gas emissions are a negative externality. That is, they are the social cost of a private activity. A carbon tax is known as a “Pigouvian tax” (named for the economist Arthur Pigou), because it aims to reflect the cost of the externalities in the price of greenhouse gas emissions. Without such a tax, carbon-intensive fuels like coal and petroleum are cheap relative to green renewables like solar and wind, because the carbon-intensive fuels do not price in the deleterious economic effects associated with their consumption. The negative externalities are felt by the economy as a whole, not just the individual consumer. Economists have a name for this widespread externalization of costs: a market failure. When the market can’t solve a problem, society will need to take interventionist action. The level of intervention required to reduce greenhouse gas emissions will be high, and a carbon tax would be the most effective option. It’s a solution appropriate to the problem. Anthropogenic climate change may be the single largest market failure in human history. It affects not just the environment, but also our livelihood and our quality of life.

Simple and direct, a carbon tax would push greenhouse gas emitters to reduce their carbon impact or pay the tax to internalize the cost of their emissions. It could be targeted to an individual emitter, a set of emitters, or an entire industry. To implement a carbon tax, the state would need to measure the tons of carbon emissions produced by an entity and it would need to set an appropriate price per ton. The measurement would probably be done by self-reporting to the Department of Ecology and regular auditing. The price would be set by statute, see for example Carbon Washington’s proposal (http://carbonwa.org/legal-language/).

By taxing carbon, we can both reduce greenhouse gas emissions and generate revenue. The dual purpose of Pigouvian taxes can be seen in prominent examples like so-called “sin taxes.” Sin taxes place additional financial burdens on smoking,
alcohol, and bottled water. Because the private benefit of these activities creates a burden on public goods, such as the health care system and landfills, sin taxes dis-incentivize the activity and attempt to supply funding for remedial measures. The legal incidence of a carbon tax would fall “upstream” on energy providers and fuel importers. The tax would take the form of a tax on greenhouse gas-contributing fossil fuels like gasoline and coal. Through market allocation, consumers would bear the costs in the form of higher gasoline and energy prices. A carbon tax, then, is priced to make it more expensive to generate greenhouse gases than to pay the tax. It would lead to a mixture of greenhouse gas reduction and increased revenue. The tax revenue could be used for reduction measures or other public goods. Although a carbon tax would be somewhat regressive, it could compensate for a reduction in sales tax and supplement the Working Families Rebate for lower-income groups.

How does a carbon tax work in practice? For that answer, we can look to our northern neighbor. On July 1, 2008, British Columbia adopted North America’s first revenue-neutral carbon tax. The tax phased in over the next four years, reaching the final scheduled increase on July 1, 2012. The current price for carbon is $30 Canadian per metric ton of CO2. B.C.’s tax is revenue-neutral, which means that all revenue raised is swapped for tax reductions elsewhere. This tax recycling is taken seriously — so much so that the province’s Minister of Finance is penalized with a 15% salary reduction should the tax net any revenue. Aside from its revenue-neutrality, the tax swap was politically palatable in B.C. because the Conservative Party premier, John Cummins, oversaw the tax with support from his own party and that of the province’s Liberals.

After implementing its carbon tax, B.C. has successfully reduced greenhouse gas emissions. The province’s example could allay fears that carbon taxes are an ineffective mechanism for meeting reduction goals. The province will complete a progress report this year on its Climate Action Plan. As of 2012, the final year of the carbon tax rate increase, the province was expected to meet its goal of 6% reduction in greenhouse gases since 2007 (Making Progress, 2012). The province has experienced a 5.3% per capita reduction above the Canadian average (Place, 2012). While B.C.’s tax has effectively reduced greenhouse emissions, it has not had a noticeable negative effect on the economy. B.C.’s economic performance since 2008 has tracked the overall Canadian recession and recovery, with a downturn between 2008 and 2009, followed by an upswing. In comparison to other provinces, B.C.’s GDP growth has fared better than average since implementing the carbon tax (Making Progress, 2012). So, while there are undoubtedly confounding fac-
tors, there is no established inverse correlation between implementing the tax and supporting economic growth. In other words, carbon taxes can be consistent with economic growth.

One key virtue of the carbon tax is that it is enforceable on a small scale. A carbon tax in Washington wouldn’t depend on the action of other jurisdictions, though similar policies in other states or provinces certainly couldn’t hurt. As a neighbor and intimate economic and environmental partner with B.C., Washington’s carbon tax could complement regional efforts to reduce greenhouse emissions. By encouraging a price for carbon emissions, the tax could also integrate well into a cap-and-trade model, such as California’s.

The list of virtues could expanded, but perhaps the best light in which to view the policy is in comparison with the alternatives.

The challenge of convincing Washingtonians about the virtues of a revenue-positive carbon tax shouldn’t be understated, as they are real and substantial. Even so, there are reasons to be hopeful that with enough information we could overcome the political hang-ups. Perhaps the best argument is to compare the revenue-positive carbon tax to the alternatives: inaction, cap-and-trade, and revenue-neutral carbon taxes.

First, the problems with inaction are self-evident, and perhaps its only strong argument is the difficulty of action in the first place. Some argue that a carbon tax is simply not politically feasible. Many Washingtonians abhor taxes qua taxes. However, more than 30 countries have passed carbon pricing laws. Of the countries that committed to reduce greenhouse gas emissions under the UN Framework Convention on Climate Change, some have implemented carbon taxes to fulfill their commitments. India, Japan, South Korea, Australia, and around 11 European nations have adopted energy taxes. Boulder, Colorado, passed a municipal carbon tax in 2006. Revenue from Boulder’s tax is invested in programs to further reduce greenhouse gas emissions.

Some point out that one of the rhetorical challenges facing proposed carbon taxes is that the taxes adversely affect economic performance. As the argument goes, a carbon tax at odds with development is a non-starter. Yet the DICE model, developed by William Nordhaus, estimates that greenhouse gases, if left at current emission rates, already adversely affect economic performance. Climate change should be an economic issue for all Washingtonians. Ocean acidification is harming the
local shellfish industry. And in a state so dependent on hydroelectric power, declining glacial area and spring snowpack could potentially interrupt our main source of carbon-neutral energy, creating a positive leakage effect from failure to reduce greenhouse emissions through a carbon tax.

Second, why would a more business-friendly cap-and-trade system with offsets be less politically feasible and equally as efficient as a carbon tax? History rebuts this presumption. As Brittany Harris points out, “[i]n reality, environmentally effective and economically efficient carbon emission trading systems have eluded both the international community and the European Union, and in practice have arguably increased emissions by artificially prolonging and legitimizing reliance on fossil fuels” (Harris, 2014). Unlike a cap-and-trade system, a carbon tax could become effective almost immediately, making it the quickest way to lower greenhouse gas emissions (Sewalk, 2012). British Columbia’s carbon tax was up and running within five months, while the Northeast’s Regional Greenhouse Gas Initiative took five years (Duff, 2008). Further, while it should be conceded that a cap-and-trade program could raise revenue by auctioning allowances, this would probably not help our state with McCleary compliance. (We need “dependable and regular tax sources.)

Third, what is gained or lost by insisting on a revenue-positive model instead of a revenue-neutral carbon tax model? A revenue-neutral carbon tax is more politically palatable to many in the state, while the two methods are equally efficient in reducing greenhouse gases. Thus, one might argue that the importance of reducing carbon emissions through the most politically-straightforward method outweighs any interest in raising revenue for the state. Why not copy British Columbia in this aspect? For Yoram Bauman, one of the major salutary effects of British Columbia’s model is the tax-swap. The tax swap creates such an effect whereby carbon taxes, instead of contributing revenue, reduce corporate income taxes.

To be clear, there is a lot at stake with the distinction between the two models. If Washington adopted B.C.’s carbon tax model, the $30 per ton CO2 would generate an estimated $145 billion each year at current emissions (Bauman & Hsu, 2012). The choice between revenue-neutral and revenue-positive determines what happens to this remarkable amount of money generated in our economy.

Reasonable minds can differ as to which option to prefer for Washington’s economy. This article suggests that perhaps the economy should not be the overriding concern of environmental policy. The intersecting nature of climate change,
education, and social inequality is perhaps sufficient to tilt the scales in favor of the revenue-positive model for policy reasons. Considering the expected $6 billion of McCleary compliance, the $10 billion of environmental loss from climate change by 2020, and the incalculable social effect of rising inequality, the potential benefits of a revenue-positive carbon tax are hard to ignore. Moreover, there is a strong argument to make for state support for progressive initiatives funded by increased revenue. The revenue could, for example, lower tuition rates for public higher education programs, fund pre-school programs, improve water quality by installing urban swales, or fund the preservation of carbon sinks like Washington’s forests.

In conclusion, a revenue-positive carbon tax is the only policy tool which can speedily reduce greenhouse emissions, integrate into our regional environmental plan, raise revenue, and create progressive tax reform. For these reasons it’s our best option. To quote William Nordhaus, “[t]axes may be unpopular, but they work” (Tickell, 2009). Washington State should overcome its political inhibitions and pursue this policy option. A carbon tax in our state would work, and it would work on multiple levels to address the problems with our skies, our schools, and our other shortcomings.

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References


