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Building a Fair and Effective Carbon Tax to Meet BC's Greenhouse Gas Targets

Marc Lee, Co-Director, Climate Justice Project
Canadian Centre for Policy Alternatives

Submission to the BC Carbon Tax Review
Attention: Minister of Finance

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BC's Carbon Tax Review comes at a time when the impacts of climate change are being felt in Canada and around the world, and yet, paradoxically, political interest in climate action has waned. In Canada this is evident in the relentless pursuit of economic development through the expansion of oil and gas exports to the US and Asia. Developing new infrastructure in support of growing oil sands and unconventional gas production (i.e. fracking) is fundamentally inconsistent with climate action and the urgent need to transition off of fossil fuels.

BC's Climate Action Plan is not sufficient for the province to meet the 2020 greenhouse gas (GHG) targets set out in the 2007 *Greenhouse Gas Reduction Targets Act*. In fact, fulfilling BC's more recent Natural Gas Strategy will make it essentially impossible to meet the 2020 target. Moreover, few jobs will be created in BC from the Natural Gas Strategy.

It is time for a new wave of bold climate action, including a reinvigorated carbon tax as a key driver of change, supported by more stringent regulations and standards, and public investments to reshape our communities. Rather than being a burden, climate action should be seen as a new economic agenda and industrial strategy. Shifting to a low-carbon BC is technologically possible and will create far more employment opportunities than expansion of fossil fuel production.

A well-designed carbon tax can be the engine of a "green industrial revolution" – it can propel climate action from public and private sectors because it both raises the cost of emitting carbon dioxide and other greenhouse gases, and provides the revenues needed to make public investments that reinforce climate action. However, before increasing the carbon tax, changes to the existing tax and revenue-recycling framework are needed for it to be fair to low- and middle-income households.

The following recommendations are based on a major study of the Climate Justice Project, a five-year research partnership between the CCPA and the University of British Columbia that includes more than 30 community organizations. The report, *Fair and Effective Carbon Pricing:*

Lessons from BC (attached) was published in February 2011. Below, key directions and next steps for the carbon tax are summarized, and then an alternative scenario is modeled to show a possible BC carbon tax system in 2016.

Recommendation 1: Continue to increase the carbon tax

Greenhouse gas pollution is a classic example of a "negative externality," or a cost of production imposed on third parties because it is not reflected in market prices. Carbon taxes are one means of internalizing the external cost. To avert economic shocks, however, carbon taxes should be phased in to provide time for households and businesses to make adjustments in their behavior, which may be unresponsive, or inelastic, in the short-term due to structural constraints. Deep reductions in emissions will require new transportation options, building retrofits and hyper-efficient appliances, and such changes cannot happen overnight.

BC's carbon tax is still very low at $30 per tonne. At a minimum, the BC government should continue annual increases in the carbon tax of $5 per year, which would lead to a carbon tax of $50 per tonne in 2016.

Modeling by Mark Jaccard and Associates for the David Suzuki Foundation and Pembina Institute concludes that a carbon price of $200 per tonne by 2020 would be needed for Canada to do its part to keep global temperature increase below 2°C. This would essentially close the gap between domestic gas prices and those prevailing in Europe.

Recommendation 2: Expand coverage of the carbon tax

A more comprehensive economy-wide approach to carbon pricing is needed. Currently, the carbon tax only covers fossil fuel combustion in the province, or about 75% of BC's domestic GHG emissions. A next-generation carbon tax should be applied to industrial GHG emissions currently excluded from the tax, including process emissions in cement, lime and aluminum production, as well as venting and leakages in the oil and gas sector.

This would raise coverage to 82% of emissions, and would raise an additional $125 million per year at the current carbon tax of $30 per tonne. Some of these areas were exempted when the carbon tax was introduced due to pending coverage through the Western Climate Initiative, but if BC is not willing to join the WCI, these emission sources should be covered by the carbon tax.

The carbon tax should also be applied to BC's international trade. BC's coal and natural gas exports are combusted in other jurisdictions, and not counted in the province's GHG inventory. But such exported emissions are double BC's own domestic emissions from burning fossil fuels. These embodied carbon emissions should also be subject to the carbon tax. Likewise, embodied emissions in imports should face a carbon excise tax (under the PST system) to level the playing field for BC producers who do face the tax.

Recommendation 3: Reform the Climate Action Credit

A key equity challenge is that taxes on consumption like the carbon tax are regressive in their distribution – lower-income households pay a larger share of their income to the tax, even

though they have the smallest carbon footprints. To address this problem, credits are needed to ensure that low-income households, who have the smallest carbon footprints, are not worse off.

At the time the carbon tax was introduced, the Low-Income Climate Action Credit was sufficient to offset carbon taxes, on average, paid by the bottom 40% of British Columbians. Since that time, the tax has increased three-fold to $30 per tonne, but the total amount allocated to the credit is only slightly higher than it was in 2008/09. The overall carbon tax and revenue-recycling regime (including personal and corporate income tax cuts) is thus regressive.

Existing corporate and personal tax cuts, funded by the carbon tax, should be reversed, and half of carbon tax revenues should instead flow back to households in the form of a revamped Climate Action or carbon credit. This would allow the maximum amount of the credit to be tripled, in line with the recent increases in the carbon tax. It would also allow credits to be provided further up the income ladder, in a manner similar to how the Canada Child Tax Benefit is determined. In the Table, we show a system that would provide a carbon credit to the bottom 80% of households, with the bottom half of households receiving more in credits, on average, than they would pay in carbon tax.

Recommendation 4: Use revenues to reinforce climate action

A revamped carbon tax system should break with revenue neutrality. There is little reason to believe in a "double dividend" of increased economic growth through lower personal and corporate income tax rates. Indeed, corporate tax cuts now account for two-thirds of the existing revenue recycling regime. Moreover, people will be more willing to pay the tax if it funds needed public investments.

The remaining half of carbon tax revenues should instead be allocated to measures that reinforce climate action. Top priorities include: support for public transit operations and expansion of new infrastructure; retrofit programs for residential and commercial buildings; education and training programs for green job development; and forest conservation initiatives.

Funds should also be used to support investments in the public sector (schools, hospitals, etc) that reduce emissions and improve energy efficiency, to better meet the objective of Carbon Neutral Government. As the carbon tax rises, carbon offset payments required of provincial government entities (a second carbon tax) should be reduced, so that within three to four years the public and private sectors in BC will face the same carbon price.

What would a $50 per tonne carbon tax in 2016 look like?

The table below shows one possible model for a BC carbon tax that continues with $5 per year annual increases through to 2016. It is assumed that a renewed commitment to climate action leads to BC meeting its 2016 target of an 18% reduction relative to 2007 levels, and that the tax is expanded to cover 82% of provincial emissions. Not included is the application of the carbon tax to imports and exports, nor are estimates adjusted for population growth.

In effect, this scenario means that BC reduces its emissions from 64.9 million tonnes of carbon dioxide equivalent (Mt CO_2e) in 2007 to 53.2 Mt in 2016. Based on these assumptions, the carbon tax in 2016 would raise $2.2 billion, half of which would be allocated to an expanded

carbon credit system and half to support complementary climate actions (latter not shown in table).

The table shows household income groups by decile (groupings of 10% from lowest income to highest) and the top 1%. The redesigned carbon credit both increases the maximum amount of the credit for low-income households, and is designed so that 80% of households would receive the credit. In particular, the bottom half of households would receive a credit that, on average, is larger than carbon tax paid. Thus, the heavy lifting is accomplished by households with higher incomes, who have, on average, the largest carbon footprints. Note that the credit is larger for some households in the middle of the distribution than lower deciles due to larger family size.

Table: A carbon tax scenario of $50 per tonne in 2016

	Carbon tax per household	Low-income credit per household	Net carbon tax
Bottom 10%	$372	$770	$(398)
D2	$537	$770	$(233)
D3	$765	$904	$(139)
D4	$815	$918	$(103)
D5	$951	$974	$(23)
D6	$1,120	$604	$516
D7	$1,180	$383	$797
D8	$1,444	$162	$1,282
D9	$1,547	$0	$1,547
Top 10%	$2,248	$0	$2,248
Top 1%	$3,948	$0	$3,948
All households	$1,096	$548	$548

While this is just one possible scenario among many tax and revenue recycling options, the key point is that it is possible to have a progressive carbon tax system that reduces inequality as it raises the price of emitting greenhouse gases.

Marc Lee is a Senior Economist with the BC Office of the Canadian Centre for Policy Alternatives, and the Co-Director of the Climate Justice Project. Marc is the author of many CCPA and Climate Justice publications, including Climate Justice, Green Jobs and Sustainable Production in BC*, with Kenneth Carlaw (2010),* Fair and Effective Carbon Pricing: Lessons from BC *(2011), and* Enbridge Pipe Dreams and Nightmares: The Economic Costs and Benefits of the Proposed Northern Gateway Pipeline *(2012).*