

2.1 Climate Change and Carbon Pricing

Canada must take urgent steps to reduce the risks posed by climate change and simultaneously take advantage of the huge opportunities available to world leaders in low-impact renewable energy and energy efficiency. Market-based policies, such as auctioned emission permits and a carbon tax, will play a critical role in shifting economic behaviour, by business, governments, and individual Canadians, to be more in harmony with long-term environmental and human health. Well-designed regulations will help force Canadian industries to be more innovative and competitive. Public and private investments need to be directed to more energy-efficient and less-polluting technologies and infrastructure. These strategies would collectively stimulate new employment in cutting-edge industries and combine with a Just Transition strategy to help workers who may be adversely affected by industrial shifts.

Putting a price on carbon

The most critical budgetary measure is to put a substantive price on carbon. The AFB will put a price on carbon emissions in order to inte-

grate environmental values into market prices and to stimulate greenhouse gas (GHG) emission reductions from both industrial and individual sources.

Specifically, the AFB will establish a price for greenhouse gas (GHG) emissions of \$30/tonne carbon dioxide equivalent (CO₂e), rising to at least \$75/tonne by 2020. Putting an adequate price on carbon is an essential step in moving Canada's economy towards a low-carbon future, and would help Canada to play a responsible role in the global effort against climate change. The carbon price should be applied broadly, through a combination of a cap-and-trade system, with a rapidly increasing proportion of permits auctioned, and a complementary carbon tax to address small businesses and individual Canadians.

The revenues from these emission sales and the carbon tax would be earmarked specifically for related mitigation and adaptation measures, including: energy efficiency and green power initiatives, investments in public transit and energy retrofits, community and worker adjustment, and green energy tax refunds for lower and middle-income families.

The AFB believes that Canada's prosperity requires policies that ensure that market prices for goods and services accurately reflect the true value of the required resources, today and in the future, as well as the full costs and benefits to the environment and human health associated with their development, production, transportation, sale, use, and disposal. This approach is often called ecological fiscal reform (EFR), and will be implemented through a mix of market-based instruments, such as taxes, fees, rebates, credits, tradable permits, and subsidy removal.

True-cost pricing policies will be complemented by the transitional use of policies such as product incentives and "feebates" to shift buying and usage patterns for major purchases, such as heating systems, automobiles and appliances, towards those whose use creates more positive impacts on the environment and human health.

Such EFR policies create many benefits. They reward environmental leaders among businesses and citizens, preserve natural resources for higher value uses, stimulate environmental innovations with global export potential, and expedite the development of economies where economic success brings concurrent environmental and human health benefits, and where self-interested economic choices are more frequently those with the most social and environmental benefits. Furthermore, such policies provide enhanced fairness to citizens and business through the "polluter pays principle" by forcing polluters to pay for the harm they cause.

Putting an adequate price on carbon is the most crucial opportunity to advance EFR, as this recommendation will set a price on pollution that spurs emission reductions throughout the economy.

The AFB will implement structural changes in order to permanently and effectively integrate environmental values into all relevant policy and policy-making processes.

Emissions cap-and trade system for industrial emissions

The AFB will implement a GHG emissions cap-and-trade system for heavy industry, utilities, and other large emitters. This cap-and-trade system will include a steadily increasing proportion of auctioned permits. Any GHG emissions reduction plan requires substantial reductions in industrial emissions because these comprise close to 50% of Canada's GHG emissions. Such a system would harness the power of the market to maximize emission reduction opportunities and minimize economic costs, while generating revenues to dedicate to additional GHG emission reductions. The AFB anticipates this system will earn approximately \$1.3 billion in new revenues in the first full year of operations from an auction of 10% of the allowable emission, at an estimated price of \$30 per tonne. Revenues from

emission permit sales would increase substantially as a higher portion of permits is auctioned and as the price level increases.

Complementary Carbon Tax

The AFB will also introduce a carbon tax as an important first step towards integrating environmental values into market prices for consumers and small businesses. This carbon tax will cover most transportation, residential, commercial, and institutional uses of fossil fuel, which account for almost half of Canada's CO₂ emissions, but will *not* apply to industrial users and other large final emitters subject to the Emissions Trading System. The carbon tax will be applied to all non-renewable fuels based on their CO₂ emission factors.

At a rate of \$30 per tonne, the carbon tax will initially generate about \$7 billion per year when

fully phased in. This rate, and the resulting revenues, are expected to rise in future years, in order to provide an increasingly strong price signal to individuals and businesses making strategy and purchasing decisions with long-term energy consumption implications.

Large final emitters such as industrial users and utilities will be exempt from this tax where they are included in an emissions trading system. Fuel use for airlines and international marine transport will not be covered at this stage, since discussion is underway about how these sectors could be covered by an international emissions trading system without resulting in national competitive disadvantages.

A carbon charge of \$30 per tonne of CO₂ emissions means a tax of about 7.1 cents a litre for gasoline, 8.2 cents a litre for diesel, 8.5 cents a litre for fuel oil, and 5.7 cents a cubic metre for natural gas. The tax will go into effect on July 1, 2008.

Recycling revenues from carbon pricing

Revenues raised from emission permit sales and the carbon tax will be directed towards a combination of:

- 1) investments in further GHG emission reductions, through renewable energy, energy efficiency and retrofit programs, and investments in public transit;
- 2) a Green Energy Tax Refund, to protect low-income Canadians, and reduce the impact on middle-income Canadians, arising from related cost increases without removing the incentive for behaviour change; and
- 3) a Just Transition Strategy and Green Jobs Investments to assist affected workers and communities.

Collectively, these measures will further increase success in reducing the risks related to climate change, and also ensure that households,

GENDER ANALYSIS Environment

While all Canadians benefit from protecting the environment and reducing emissions, assistance such as the Green Energy Tax Refund for low-income Canadians is particularly important for women, who make up a disproportionate share of this demographic.

The Just Transition Strategy will greatly help women and families whose employment situations may change through the adoption of measures outlined in this chapter.

workers, and other vulnerable Canadians are assisted in making the transition toward a greener economy. Any revenues generated beyond what is required in each year for these measures will go into an Environmental Fund. This Fund will make financing available in future years for a variety of environmental and related measures.

Renewable energy and energy efficiency

The realities of climate change, both ecological and economic, make it clear the federal government must steer Canada onto a sustainable energy path. This path requires not just supporting renewable energy and energy efficiency, but also removing public subsidies that encourage unsustainable fossil fuel extraction and production. Such an approach will not only help avoid the catastrophic environmental consequences of climate change, but will also generate economic opportunities *and* clean the air and water.

Renewable energy and energy efficiency should be the cornerstones of a national energy plan that addresses the long-term challenges of climate change and securing access to clean, low-impact energy.

The AFB will implement the Green Budget Coalition's 2008 budget recommendations to set and achieve targets on energy efficiency, and to develop and implement a comprehensive renewable energy strategy. These will collectively cost

about \$1 billion/year for the next three years, and \$8 billion over 15 years.¹

Importantly, these recommendations include many ambitious measures to help Canadians reduce their energy costs and their exposure to the costs of carbon pricing. These measures aim to retrofit all residential and commercial buildings in Canada, with a focus on low-income housing, to install one million residential and small business solar systems, to stimulate new green building, to support renewable energy deployment in the north, and more.

Furthermore, the AFB will allocate \$2.4 billion over three years to enhance public transit infrastructure and to help make public transit more affordable for all.

Green Energy Tax Refund

A Green Energy Tax Refund will help low- and middle-income Canadians make the transition towards sustainable energy consumption.

The average household will pay an estimated \$270 extra per year as a direct result of higher fuel prices from this \$30/tonne carbon price, equal to less than half of one-percent of average household income. But the total impact of direct and indirect costs passed on to households will be larger, particularly on lower-income households, who spend a much larger proportion of their income on energy.

Canada's tax system will need to be fundamentally reformed to become more environmentally effective and more progressive through environmental tax reform, but this will take a number of years. The introduction of a substantive carbon tax should not be delayed until that happens, nor should middle- and lower-income Canadians be forced to bear higher costs without any financial assistance.

Together with the carbon tax, the AFB will introduce a Green Energy Tax Refund, fully compensating lower-income and partially compensating middle-income households for related increases in their living costs, while making the

tax system more progressive, and not cancelling out the incentive for emission reductions created by carbon pricing. As the carbon price increases over time, the value of this rebate will be proportionally increased to continue to offset related cost increases for middle- and lower-income households.

This refund will provide \$300 per adult and \$150 per child in refundable tax credits. For example, a qualifying two-parent family with two children would receive \$900 after tax from this refund. All families with household incomes of \$70,000 or less (amounting to 60% of all households in Canada) will receive the full credit. The amount will be reduced by 5% for each dollar of family income above \$70,000. At this rate, the total cost of the credit will be about \$5 billion per year, when fully phased in.

Just Transition Strategy

A Just Transition Strategy will assist workers and communities affected by the transition toward a greener economy. Making the transition to a low-carbon economy will mean job losses in some sectors, but also — driven by emerging green industries and opportunities — job gains in others, and shifts in the types of jobs available. Workers who lose jobs must be provided with other options, particularly in sectors experiencing overall growth. The AFB will require transition programs for displaced workers to ensure that the Canadian labour force has the skills required to support a greener economy.

The Just Transition program will fund:

- training and educational opportunities for skills upgrading that allow workers to upgrade their skills for the jobs that are being created;
- early notice of layoffs so that workers can access counselling and training programs quickly;
- income support for displaced workers for up to three years to enable them to take

advantage of training and educational opportunities;

- peer counselling to assess workers' needs, and analysis of labour market needs; and
- relocation funds for those who must move in order to find new work.

Mitigating impacts on sensitive industries and regions

The AFB will also explore mechanisms that address the competitiveness concerns of Canadian sectors that could become more vulnerable to international competitors facing less stringent GHG policies. These measures should simultaneously aim for strong GHG reduction action by our trading partners and sustainability in Canada's energy production sector, while addressing the particular circumstances of developing countries.

The AFB will also monitor the impacts on Canadians living in remote, rural areas, to see how

well the Green Energy Tax Refund — supported by the programs to increase energy efficiency and renewable energy use and to increase renewable energy deployment in the north — are offsetting these Canadians' increased living costs.

This combination of substantive carbon pricing and strategic revenue recycling will finally put Canada on an effective track to addressing climate change. Furthermore, it will redirect Canadians' tax dollars towards a modern economy and a healthier environment; reduce Canada's long-term energy dependence; and increase supplies of low-impact, renewable energy. In addition, it will reduce air pollution and related health problems, lowering the incidence of respiratory illnesses, and improving and extending the lives of Canadians (*See Table 4, Section 2 for more costing details on environmental initiatives*).

Notes

¹ Green Budget Coalition, *Big Steps Forward*, 2007, p. 30–33.