

BIG STEPS FORWARD



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Canadian Parks and
Wilderness Society
Centre for Integral
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David Suzuki
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Ducks Unlimited
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Ecojustice
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International Institute
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Development
MiningWatch Canada
Nature Canada
Nature Conservancy
of Canada
Pembina Institute
Pollution Probe
Sierra Club of Canada
Social Investment
Organization
World Wildlife Fund
Canada

RECOMMENDATIONS FOR BUDGET 2008

- **CARBON PRICING**
- **ACTION ON NATURE**
- **RENEWING THE
GREAT LAKES —
ST. LAWRENCE REGION**



Executive Summary

It is now time for ambitious environmental action.

Canadians have clearly indicated that the environment is their number one concern.¹

Prime Minister Harper has affirmed that, “we have an unprecedented opportunity to lead the way to a better, cleaner, healthier world.”² He has further acknowledged that, “climate change is perhaps the biggest threat to confront the future of humanity today,”³ and that, “we need to take action, we owe it to future generations.”⁴

Canadians want ambitious, effective action that addresses the full scale of our environmental problems and ensures that future generations of Canadians will have the opportunity to enjoy a stable climate, clean air and clean water, and the bountiful waters and landscapes which are so central to our economy, our personal health, and our identity as Canadians.

The **Green Budget Coalition** is meeting this challenge head-on. The Coalition comprises nineteen of Canada’s leading environmental and conservation organizations, representing over 500,000 Canadians as members,

supporters, and volunteers, and has been active since 1999.

This document details **three priority recommendations**, and six recommendations on other important issues, that the Green Budget Coalition believe to be the foremost budgetary opportunities to advance environmental sustainability in Canada. Together, these recommendations could make dramatic progress in reducing Canada’s greenhouse gas emissions, in conserving Canada’s treasured oceans and lands, and in renewing the environment of the Great Lakes and St. Lawrence River region.

1) **Carbon Pricing: Efficiently Stimulating Greenhouse Gas Emissions Reductions**

Canada should establish a price for greenhouse gas (GHG) emissions of at least \$30/tonne carbon dioxide equivalent (CO₂e) by 2009, and at least \$75/tonne by 2020. Putting an adequate price on carbon⁵ 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

1. <http://www.cbc.ca/canada/story/2007/09/23/environment-poll.html> 8 October 2007: “Environment trumps health care, Afghanistan as key issue: poll”. Harris/Decima poll reported that 30% of Canadians polled said the environment is the most important issue currently facing Canadians, and that 61% were “very concerned” about the environment. 1000 Canadians were polled from August 15-21, 2007, results considered accurate plus or minus 3.1 percentage points, 19 times in 20.

2. Speech by Prime Minister Stephen Harper in Sydney, Australia, on September 7, 2007. <http://www.ecoaction.gc.ca/speeches-discours/20070907-eng.cfm>.

3. Speech by Prime Minister Stephen Harper in Berlin, Germany, on June 4, 2007. <http://www.pm.gc.ca/eng/media.asp?category=2&id=1681>

4. Speech by Prime Minister Stephen Harper in Sydney, Australia, on September 7, 2007.

5. In this document, the word “carbon” is a shorthand expression that includes all six of the greenhouse gases covered by the Kyoto Protocol (of which carbon dioxide is the largest component). The abbreviation “CO₂e” refers to “carbon dioxide equivalent,” a standard measure which incorporates all six of these gases.

effort against climate change. The carbon price should be applied broadly, either through a tax or through a cap-and-trade system with a rapidly increasing proportion of permits auctioned. In either case, the revenues raised should be directed mainly towards investments in further actions to reduce GHG emissions, and also used to protect low-income Canadians from related cost increases.

2) **Action on Nature: Conserving Canada's Treasured Oceans and Lands**

Canada should firmly establish its position as a respected global conservation leader by fully implementing three existing commitments to conserve both marine and terrestrial biodiversity:

1. Establishing Canada's national system of marine protected areas by 2012, and implementing integrated oceans management plans for Canada's oceans,
2. Completing Canada's systems of national parks, national wildlife areas and migratory bird sanctuaries, and ensuring their long-term protection, and
3. Improving incentives under the federal Agricultural Policy Framework for protecting ecological goods and services on agricultural lands.

Such bold actions, along with federal leadership to coordinate complementary work by all levels of government nationwide, are essential to secure the ongoing health and economic strength of our lands, waters, and wildlife.

3) **The Great Lakes and St. Lawrence River: Restoring, Protecting, and Enhancing the Region**

Canada should build upon the progressive *Budget 2007* measures by developing and investing in a comprehensive, long-term sustainability strategy to restore, protect, and enhance the environment of the combined Great Lakes and St. Lawrence River region. Priority areas for investment should be:

1. Developing a shared, basin-wide vision, amongst the governments and residents of the surrounding provinces and states, to foster better coordination and consistency while improving capacity building and supporting action-oriented research,
2. Upgrading water and wastewater infrastructure,
3. Ensuring the clean up and de-listing of existing Areas of Concern and Zones d'intervention prioritaire,

4. Preventing contamination from substances of emerging concern,
5. Protection from invasive species, and
6. Protecting endangered species and enhancing biodiversity and habitat.

Such investments will ensure a clean healthy source of drinking water for millions of Canadians, strengthen the ecosystem's capacity and resilience to support strong economic and social systems, and facilitate a healthy, growing economy and business climate for area residents.

This document further outlines the following six recommendations on other important issues:

- Preserving Minerals for the Future: Ending Counterproductive Support Programs
- Energy Efficiency: Setting and Achieving Targets
- Renewable Energy: Developing and Implementing a Comprehensive Strategy
- Extending Ecogift Tax Incentives to Inventory Lands
- Conserving Our Migratory Birds
- Better Indicators: Integrating Environmental Values into Policy

The Green Budget Coalition firmly 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 could be implemented through a mix of market-based instruments, such as taxes, fees, rebates, credits, tradable permits and subsidy removal.

True-cost pricing policies should be complemented by the transitional use of policies such as product incentives and "fee-bates" 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 amongst 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”⁶, by forcing polluters to pay for the harm they cause.

The Green Budget Coalition further recommends that the federal government implement structural changes in order to permanently and effectively integrate environmental values into all relevant policy and policy-making processes.

The Green Budget Coalition commended the Government of Canada’s *Budget 2007* for taking important steps towards implementing ecological fiscal reform, and highlights many prime opportunities in this document to build upon those measures.⁷

Carbon Pricing is the most crucial opportunity, as this recommendation would set a price on pollution that would spur emission reductions throughout the economy. *Protecting Minerals for the Future* would build upon *Budget 2007*’s changes to capital cost allowance rates to advance Canada farther towards a

sustainable resource future. *Better Indicators* outlines the type of structural changes that must occur in order to ensure that environmental values are permanently, and effectively, integrated into federal policy-making structures.

Canada can only take advantage of the “unprecedented opportunity” to which Prime Minister Harper referred by taking ambitious actions now to put a price on pollution and the depletion of nonrenewable resources, and to invest in critical environmental conservation, supported by strategic regulatory measures.

The Green Budget Coalition expects to continue promoting, and refining, these recommendations until they are adopted. We welcome inquiries, suggestions, and other feedback.

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6. The “polluter pays principle” was defined in the 1972 OECD Guiding Principles on the International Economic Aspects of Environmental Policies as follows: “The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called ‘Polluter Pays Principle’. This principle means that the polluter should bear the expenses of carrying out the above mentioned measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the costs of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment.”, cited in OECD (2001): *Environmentally Related Taxes in OECD Countries: Issues and Strategies*, Paris, p.16.

7. See the *Greening Canada’s Economy* section for more details on how these Green Budget Coalition recommendations build upon specific Budget 2007 measures.



The GREEN BUDGET COALITION

brings together

Canada's leading environmental and conservation organizations

to assist the government

to develop and implement

strategic budgetary and fiscal measures

critical to long-term environmental sustainability.

The Green Budget Coalition was founded in 1999 with the recognition that the annual federal budget is often the most important Canadian environmental policy document of the year, and that the integration of environmental values into economic and fiscal policy is a fundamental requirement for achieving environmental sustainability and lifelong human health. The Coalition's primary focus is the selection, development, and submission of priority environmental and conservation recommendations for each annual federal budget, along with the advancement of ecological fiscal reform. The Coalition is committed to continually refining its recommendations, through in-depth analysis and ongoing dialogue with representatives of the Canadian government, academic, business and non-governmental organizations.

The Green Budget Coalition comprises 19 of Canada's leading environmental and conservation groups. These member groups collectively represent over 500,000 Canadians, through their volunteers, members, and supporters. The Coalition operates within four cordial caucuses: Clean Air & Climate Change, Protecting Canada's Natural Capital, Healthy Communities & Toxics Cleanup, and Ecological Fiscal Reform, and makes its decisions on a consensus basis.





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This document is also available at www.greenbudget.ca/2008/main.html.

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Greening Canada's Economy

Canada's economy will only maximize benefits for Canadians, and be truly "green", when market prices tell the environmental truth, by reflecting true values, today and in the future, as well as the full costs and benefits — financially, environmentally, and socially.

Currently, Canada's market prices do not tell the environmental truth. The life-cycle impacts of specific goods and services include the resource depletion, waste creation, pollution emissions, and ecological restoration resulting from their development, production, transportation, sale, use, and disposal. However, the full spectrum of such costs and benefits is generally not represented in the price of goods and services, and the remaining "externalities"⁸ are thus imposed on, or provided to, society at large. Because of this, businesses and consumers tend to over- or under-consume particular goods and services depending on whether prices are artificially low, or high.

Economists refer to this situation as a "market failure" because there is no market for the externalities, and the market for the goods and services is distorted. Economic theory says that when prices reflect true costs, an optimal level of consumption takes place, and society's welfare derived from the consumption of goods and services is maximized. Conversely, when prices do not reflect the full costs, the arising market failure prevents Canada's economy from being fully efficient and from maximizing societal well-being for Canadians.

Canada's economy suffers from two major ongoing market failures.

Firstly, we are over-consuming and inefficiently utilizing our non-renewable natural resources, because their market prices do not accurately reflect their critical value as a source of economic activity, nor the costs of the tax concessions and environmental damage currently linked to their extraction and production. If our children and grandchildren had a chance to bid on the natural resources we are currently depleting, they would likely offer much more. We should treat our natural resources as an asset to be nurtured and grown, for our long-term benefit, just as we would treat our financial savings.

Secondly, we are over-polluting our air, water, and soil — and through them our own human bodies — because market prices similarly undervalue the crucial value of their — and our — capacity to absorb this pollution, and of its negative impacts, especially as we approach the limits of these capacities. We have taken the absorptive capacity of the air, water, and soil, and ourselves, for granted for many centuries. We depend on it for everything we do, from manufacturing to driving to simply breathing. However, changes to our global climate, as well as increases in sicknesses like asthma amongst our family and friends, suggest that we have reached the point at which we can no longer pollute without major consequence.

8. "Externalities" refers to costs or benefits, resulting from an economic activity, that impact an individual or entity not involved in determining that activity, and which are not reflected in market prices. Common environmental externalities include air, water and noise pollution, and the stewardship of wetlands and forests.

As a result of these market failures, when businesses and citizens try to make operational and purchasing decisions with beneficial environmental impacts, they often find themselves needing to incur increased costs in order to do so — costs that their competitors or neighbours do not face. This is counterproductive to achieving a healthier society because it sends the wrong signals to economic decision-makers, large and small.

The Green Budget Coalition firmly 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 could be implemented through a mix of market-based instruments, such as taxes, fees, rebates, credits, tradable permits and subsidy removal.

True-cost pricing policies should be complemented by the transitional use of policies such as product incentives and "fee-bates" 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 amongst 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"⁹, by forcing polluters to pay for the harm they cause.

The Green Budget Coalition further recommends that the federal government implement structural changes in order to permanently and effectively integrate environmental values into all relevant policy and policy-making processes.

Canada lags behind most other industrialized countries, including the United States and Australia, in utilizing market-based instruments, particularly financial disincentives. The OECD's 2004 Environmental Performance Review of Canada states:

The government should make clear that subsidies and tax incentives are tools for use during a transition period only, and that voluntary approaches should be supplemented by more conventional use of regulations (e.g. limits on fuel consumption by cars, promotion of clean fuels) and economic instruments.¹⁰

The Green Budget Coalition commended the Government of Canada's Budget 2007 for taking important steps towards implementing ecological fiscal reform. The three most notable actions were the phase-out of the 100% accelerated capital cost allowance (ACCA) for the oil sands, as part of a closer realignment of the ACCA with environmental objectives; the introduction of a modest carbon tax as part of a revenue-neutral "feebate" structure for new automobile purchases; and the acknowledgement of the importance of an emissions permit trading system to effectively addressing climate change.

The Green Budget Coalition is highlighting many opportunities in this document to build upon these Budget 2007 measures.

The most crucial opportunity is *Carbon Pricing*, which could play a pivotal role in transforming Canada's economy towards a cleaner, low-carbon future and create enduring environmental, social and economic benefits. These benefits would include: significant, sustained greenhouse gas (GHG) emission reductions; the development of clean industrial production, and

9. The "polluter pays principle" was defined in the 1972 OECD Guiding Principles on the International Economic Aspects of Environmental Policies as follows: "The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called 'Polluter Pays Principle'. This principle means that the polluter should bear the expenses of carrying out the above mentioned measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the costs of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment.", cited in OECD (2001): Environmentally Related Taxes in OECD Countries: Issues and Strategies, Paris, p.16.

10. OECD (2004): OECD Environmental Performance Review of Canada, p. 193.

associated job creation; improved air quality; reduced risks to human health; as well as billions of dollars in additional revenue to support further GHG emission reductions and to protect low-income Canadians from the impacts of related cost increases.

Protecting Minerals for the Future would build upon the phase out of the 100% oil sands ACCA, and the expansion of the ACCA and Class 43.1 and 43.2 of the Income Tax Regulations to support more renewable sources of energy, by eliminating and cancelling three tax concessions that support environmentally-damaging mining activities.

The *Switch Green: Energy Star Appliance Feebate* (outlined in the *Energy Efficiency* recommendation) would build upon the Vehicle Efficiency Incentive feebate structure by providing Canadians with financial

incentives to purchase and use more energy-efficient appliances.

Better Indicators outlines options to integrate environmental values into federal policy and policy-making, including the best next step: completing the implementation of the National Round Table on the Environment and the Economy's 2003 recommendations regarding indicators of natural capital.¹¹

As Canada's market prices better incorporate full environmental values, costs and benefits, Canada's economy will become more resource efficient, and will cause less environmental and human health damage through pollution. Most importantly, it will leave our children with a more sustainable resource base, cleaner air, water, and soil, and thus a higher quality of life.

11. NRTEE (2003): Environment and Sustainable Development Indicators for Canada. <http://www.nrtee-trnee.ca/eng/publications/sustainable-development-indicators/index-sustainable-development-indicators-eng.htm>

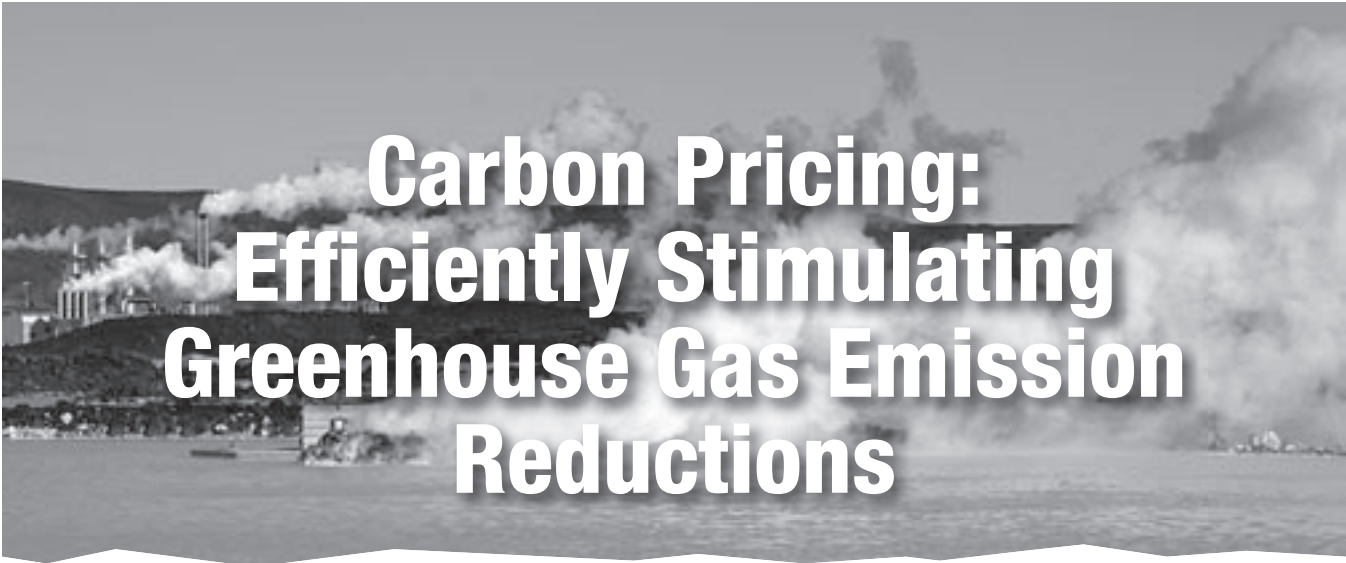


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Carbon Pricing: Efficiently Stimulating Greenhouse Gas Emission Reductions

RECOMMENDATION SUMMARY:

Establish a price for greenhouse gas (GHG) emissions of at least \$30/tonne carbon dioxide equivalent (CO₂e) by 2009, and at least \$75/tonne by 2020.^{12,13,14} This price should be applied broadly in the Canadian economy, either through a tax or through a cap-and-trade system with a rapidly increasing proportion of permits auctioned. In either case, the revenues raised should be directed mainly towards investments in further actions to reduce GHG emissions, and also used to offset related cost increases for low-income Canadians.

Revenue Implications

The revenue implications of a carbon pricing system will vary widely, depending on the breadth of GHG sources to which it applies and either (i) the tax level or (ii) on the stringency of the regulated target and the percentage of permits auctioned in a cap-and-trade system. As an example, if permits were auctioned to cover only 10% of GHG emissions from Canada's large emitters, at a price of \$30/tonne CO₂e, the auction would generate annual revenues for the Government of Canada of \$1 billion or more.¹⁵ If Canada eventually applied a tax of \$75/tonne to 80% of national emissions, revenues could amount to upwards of \$36 billion.¹⁶

Benefits for Canadians

- Lead to significant, sustained GHG emission reductions, thus helping to protect Canadians from dangerous climate change and to fulfil Canada's international treaty obligations,
- Spur the development of clean industrial production, with associated job creation, and the development of low-GHG technologies with export potential,
- Raise substantial revenue to fund further emission reductions, protect vulnerable Canadians from the impacts of related price increases and potentially reduce other taxes,
- Provide economic advantages to environmentally-leading businesses in all sectors,
- Provide increased financial benefits to individuals, businesses and organisations who reduce their environmental impact, and
- Improve air quality and reduce risks to human health.

12. Except where noted, \$ values in this recommendation are today's Canadian dollars.

13. \$30/tonne in 2009 and \$75/tonne are lower bounds. The Green Budget Coalition intends to refine its recommended carbon price schedule in line with the evolving understanding of what is needed to ensure Canada meets sufficiently ambitious national GHG reduction objectives.

14. The National Round Table on the Environment and the Economy (NRTEE) has found (see *Selecting the Right Price — Domestic Considerations*, below) that a carbon price of \$75/tonne in 2020 would be necessary to reduce Canada's energy-related GHG emissions to 17% below the 2003 level by 2020. The Green Budget Coalition believes that Canada needs to adopt a more ambitious GHG target for 2020; but if the NRTEE's scenario had not started from the low initial carbon price level of \$10/tonne in 2010, it might have been expected to produce a lower price in 2020.

15. $10\% \times 350 \text{ million tonnes} \times \$30/\text{tonne} = \$1.05 \text{ billion}$.

16. $80\% \times 600 \text{ million tonnes} \times \$75/\text{tonne} = \$36 \text{ billion}$.

Vision

Implementing this recommendation would be a significant step towards two long-term environmental goals:

- *Internalizing the environmental and human health costs of all pollution in Canada into market prices, and*
- *Ensuring Canada plays a leadership role in the global effort to prevent dangerous climate change through a massive scale-up of GHG reduction efforts by the federal government.*

This recommendation has **five main sections**:

- A. The case for carbon pricing
- B. Selecting the right price
- C. Carbon pricing principles
- D. Comparing the tax and trading options, and
- E. Important design considerations.

A. The Case for Carbon Pricing

The Imperative to Reduce GHG Emissions

In early 2007, a report from the world's most authoritative climate science body, the Intergovernmental Panel on Climate Change (IPCC), concluded that the "warming of the climate system is unequivocal" and is mainly due to human activities.¹⁷ A second IPCC report projected catastrophic consequences if GHG emissions are allowed to continue unchecked, while a third concluded that deep reductions in GHG emissions are technically feasible, affordable, and urgent.

Meanwhile, global warming has become a top political issue, with survey after survey finding that Canadians are concerned and want to see action to protect the climate. In May 2007, Environment Minister John Baird told a House of Commons Committee that the government "believes that the polluter should pay,"¹⁸ while, in June, Prime Minister Stephen Harper described climate change as "perhaps the biggest threat to confront the future of humanity today."¹⁹

As a developed country with one of the highest per-capita GHG emission rates in the world, Canada must be a leader in reducing GHG emissions both quickly

and deeply. The Green Budget Coalition believes that, to play a responsible part in the global effort to prevent dangerous climate change, the Government of Canada must put a price on carbon that applies broadly in Canada's economy as soon as possible. This would considerably strengthen the government's current "Regulatory Framework for Air Emissions" proposal, which has been shown to be too weak to meet its targets on its own.²¹

The Merits of Carbon Pricing

In his comprehensive review of the economics of climate change, Sir Nicholas Stern – a former chief economist of the World Bank – concluded that "[c]limate change is the greatest market failure the world has seen." Faced with this failure, one of the key policies Stern recommends is "carbon pricing, through taxation, emissions trading, or regulation, so that people are faced with the full social costs of their actions."²²

Climate change has enormous potential to damage Canada's environment, society and economy. Putting a price on carbon that reflects its true costs will help curb GHG emissions in the short-term, and will initiate a transformation of Canada's economy towards a low-carbon future. This should be done either through a regulated cap-and-trade system, or through a tax on carbon.

Fiscal instruments and market-based mechanisms — such as taxes or emissions trading — help meet environmental objectives at the lowest overall costs to the economy. They provide the flexibility to utilize the most appropriate measures for individual situations and create economic incentives to continue reducing pollution far beyond minimum standards.

The Green Budget Coalition strongly believes that Canada's future prosperity requires the integration of environmental and social values into market prices through strategic fiscal policy choices. In the case of carbon pricing, the federal government has a longstanding obligation to do exactly that: Canada is a signatory to a 2001 Organisation for Economic

¹⁷ IPCC Working Group I, Summary for Policymakers. Available at http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Print_SPM.pdf. p. 5, 10.

¹⁸ Testimony to the Standing Committee on the Environment and Sustainable Development, May 29, 2007.

¹⁹ Speech by Prime Minister Stephen Harper in Berlin, Germany, on June 4, 2007. Available at <http://www.pm.gc.ca/eng/media.asp?category=2&id=1681>

²⁰ In this document, the word "carbon" is a shorthand expression that includes all six of the greenhouse gases covered by the Kyoto Protocol (of which carbon dioxide is the largest component). The abbreviation "CO₂e" refers to "carbon dioxide equivalent," a standard measure which incorporates all six of these gases.

²¹ See the Pembina Institute's analysis of the regulatory proposal at http://pubs.pembina.org/reports/Reg_framework_comments.pdf, and also the C.D. Howe Institute's publication "Estimating the Effect of the Canadian Government's 2006–2007 Greenhouse Gas Policies", available from http://www.cdhowe.org/pdf/workingpaper_5.pdf.

²² Press note: "Publication of the Stern Review on the Economics of Climate change" (30 October, 2006). Available from http://www.hm-treasury.gov.uk/newsroom_and_speeches/press/2006/press_stern_06.cfm.

Co-operation and Development (OECD) environmental strategy that requires the government to create incentives for GHG emission reductions through “market-based instruments such as subsidy removal and green tax reform, tradable emission permits or quotas.”²³

The federal government has the legal and jurisdictional authority to put a price on carbon. If a price is set through a regulated cap-and-trade program, the government can draw on its authority to regulate toxic substances (a category that includes GHGs) under the Canadian Environmental Protection Act. The federal government has the authority to levy a carbon tax through its annual budget.

Canadian Precedents and Supporters

There is growing support for carbon pricing in Canada:

- The province of Québec recently announced that energy producers, distributors and refiners will be subject to a modest carbon tax as of October 1, 2007. The measure is expected to raise about \$200 million per year, which will be directed towards the province’s Kyoto Protocol implementation strategy.
- Starting in July 2007, heavy industry in Alberta will be subject to a GHG regulation that allows companies to meet their targets by paying a \$15/tonne CO₂e fee. The federal government has also announced plans for a regulation on heavy industry nation-wide that would take effect in 2010, again with a \$15/tonne compliance option (although access to this option would be capped, unlike in Alberta’s system).
- The Conference Board of Canada recently called for “various forms of carbon taxes” and “cap and trade systems” as some of the “three basic elements” of a Canadian climate policy.²⁴
- The Canadian Association of Petroleum Producers supports a “price signal applying as broadly as practical”, starting at about \$15/tonne CO₂e and escalating to \$50/tonne or more over the next 15 years (as long as all “major emitting countries” do likewise).²⁵

B. Selecting the Right Price

International Considerations

The IPCC’s comprehensive review of economic studies found that “an effective carbon-price signal could realize significant mitigation potential in all sectors”.²⁶ According to the IPCC, a carbon price of US\$50/tonne CO₂e would leverage global emission reductions of 20–35% below business-as-usual emission levels by 2030 in a scenario of rapid economic growth, or reductions of 27–52% below business-as-usual levels in a lower-growth scenario.²⁷ Even those reduction levels still fall significantly short of the minimum reductions needed to have a good chance of avoiding dangerous climate change.

Even at over \$75/tonne, the price of carbon is modest relative to the cost of climate change. In his review of climate change economics, Sir Nicholas Stern found that the “social cost of carbon” — the net economic costs of damage from unchecked climate change across the globe — is about US\$85/tonne (C\$82/tonne).²⁹ There have been a number of other estimates of the social cost of carbon, which vary depending on assessment of future impacts, treatment and analysis of risk, discount rates, equity weightings, and the type of economic approach used.

International markets have already started charging relatively substantial prices for carbon emissions. As of mid-October, the carbon price for “year 2008” credits in the European Union’s emissions trading market, which encompasses over 11,000 heavy industry facilities in the EU, was €23/tonne CO₂e (\$32).³⁰ Clean Development Mechanism credits under the Kyoto Protocol, which are awarded to projects that reduce emissions in developing countries, sold at an average price of C\$11/tonne in 2006.³¹

²³ OECD Environmental Strategy for the First Decade of the 21st Century (adopted by OECD Environment Ministers on 16 May 2001), p. 8. Available from <http://www.oecd.org/dataoecd/33/40/1863539.pdf>.

²⁴ News release: “Consensus needed on Basic Elements of Canada’s Climate Change Policy”. Conference Board of Canada, June 5. Available at <http://www.conferenceboard.ca/press/2007/climate.asp>.

²⁵ Presentation by Rick Hyndman of the Canadian Association of Petroleum Producers to CIBC World Markets (April 18, 2007), p. 5. Available at <http://www.capp.ca/raw.asp?x=1&dt=PDF&dn=119902>.

²⁶ IPCC Working Group 3 Summary for Policymakers (Climate Change 2007: Mitigation of Climate Change), p. 29. Available at <http://www.ipcc.ch/SPM040507.pdf>.

²⁷ *Ibid.*, pp. 9-12.

²⁹ Stern Review, *The Economics of Climate Change (Executive Summary)*, pp. xvi-xvii.

³⁰ See <http://www.europeanclimateexchange.com>.

Domestic Considerations

Because Canada is a major producer of oil and coal-fired electricity, there is a widely held view among governments and industry that carbon capture and storage (CCS) technologies will have to be used on a large scale to control Canadian GHG emissions.³² In this situation, a credible carbon price for Canada would need to be strong enough to make this technology economically attractive. According to the IPCC's Special Report on Carbon Dioxide Capture and Storage (*Summary for Policymakers*, 2005), "CCS systems begin to deploy at a significant level when CO₂ prices begin to reach approximately 25–30 US\$/tCO₂".³³ However, there are recent indications that the price to make CCS economic on a large scale in Canada may be closer to \$50/tonne.³⁴

In April 2007, the federal government set a target of reducing GHG emissions by 20% below 2006 levels by 2020. A report from the independent National Round Table on the Environment and the Economy found that reaching a target close to this would require a carbon price of \$75/tonne in 2020 (expressed in 2003 dollars). The Green Budget Coalition believes that Canada needs to adopt a more ambitious GHG target for 2020. On the other hand, if the NRTEE's scenario had not started from the low initial carbon price level of \$10/tonne in 2010, it might have been expected to produce a lower price in 2020. The analysis also found that the macroeconomic costs of carbon pricing are minimal — the report's worst-case scenario would see Canada's GDP 1.5% smaller than its business-as-usual level in 2050 — and that even those minimal economic costs can be reduced by implementing a carbon price more quickly and signalling that the price will rise over time.³⁵

Recommended Carbon Price Schedule and its Projected Impacts

As a result, the Green Budget Coalition believes that a Canadian carbon price of at least \$30/tonne CO₂e is essential by 2009. This initial price should be increased as quickly as possible so that it reaches at least \$75/tonne by 2020.

Notably, recent economic analysis of the effects of a carbon price on Canada's economy found that a price of \$30/tonne CO₂e would produce financial gains for most sectors in the short- and medium-term. Similarly, the economic modelling predicted that a carbon price of \$30/tonne would yield net gains to Canada's GDP by 2015.^{36, 37}

In rough terms, a \$30/tonne CO₂e price (whether implemented as a tax or through emissions trading with all of the permits auctioned) would add an about extra 3 cents/kWh to coal-fired electricity generators, and about an extra \$3 per barrel to the costs of oil sands production.³⁸ Coal-fired electricity and oil sands processing represent two extreme cases, as they are two of the most emissions-intensive production methods in use in Canada today. Yet even there, the cost increase created by a \$30/tonne carbon price does not represent a dramatic deviation from current prices: in the oil sands, \$3 is well within the range of recent price fluctuations in the global price of oil. Similarly, a \$30/tonne CO₂e tax fully passed on to consumers would increase gas prices at the pump by 7.2 cents per litre — a cost that, again, falls within the range of the price fluctuations we see regularly at the pump.³⁹

A tax of \$30/tonne CO₂e applied to fossil fuels used directly by households for transport, home heating and other uses would amount to about \$270 for the average family, or less than 0.5% of average annual household spending. While indirect costs passed on to consumers

³¹ The World Bank. *State and Trends of the Carbon Market 2007* (Washington, May 2007) p. 4.

³² Carbon capture and storage technology would allow a company to capture CO₂ emissions "at the end of the pipe", before they enter the atmosphere. The CO₂ would be shipped in a pipeline to a location where it could be stored underground permanently. This technology is already operating in pilot projects in North America, and has the potential to reduce GHG emissions significantly, although concerns remain relating to public safety and acceptance, permanence of storage, and monitoring and liability.

³³ Intergovernmental Panel on Climate Change, *Special Report on Carbon Dioxide Capture and Storage (Summary for Policymakers)*, 2005. Available from http://arch.rivm.nl/env/int/ipcc/pages_media/SRCCS-final/SRCCS_SummaryforPolicymakers.pdf, p. 11.

³⁴ Based on conversations in May–June 2007 with Canadian industry and academic experts.

³⁵ National Round Table on the Environment and the Economy. *June 2007. Interim report to the Minister of the Environment*, pp. 11, 14. <http://www.nrtee-trnee.ca/eng/publications/ecc-interim-report/Clean-Air-Interim-Report-e.pdf>

³⁶ According to the economic modelling cited here, the gains in GDP occur for two main reasons. First, the carbon price increases prices of goods but consumption remains relatively stable in the short term. (For example, many people would continue buying similar levels of fuel for their vehicles in the short run even if the price of gas increased.) Secondly, the carbon price spurs investment in GHG-reduction technologies, and that investment produces GDP growth.

³⁷ MK Jaccard and Associates Inc. *Cost Curves for Greenhouse Gas Emission Reduction in Canada: The Kyoto Period and Beyond* (Sept. 29, 2006). pp. vi–vii.

³⁸ Assuming typical emission rates of 100 kg/barrel of CO₂ for oil sands production and 1 kg/kWh for coal-fired power.

³⁹ Based on an emissions rate of 2.443 kg CO₂e per litre of gasoline.

would be higher than this, the total impact of a broadly applied tax at this rate would represent less than 1.5% of an average household's annual spending.⁴⁰

C. Carbon Pricing Principles

In Budget 2005, the Government of Canada identified five key principles that it would use to assess any environmental taxation proposal. Those are:

- Environmental effectiveness,
- Fiscal impact (how the proposal would affect the government's revenues),
- Economic efficiency,
- Fairness (across sectors, regions, and population groups), and
- Simplicity of administration.⁴¹

Using the above list as a starting point, the Green Budget Coalition has established four principles that form the fundamentals of a credible carbon-pricing policy. These are:

- 1. The "polluter pays" principle.** In Budget 2005, the government defined "polluter pays" as meaning that "the polluter should bear the costs of activities that directly or indirectly damage the environment. This cost, in turn, is then factored into market prices."⁴² Minister Baird re-affirmed the government's commitment to this principle in 2007.⁴³ ("Polluter pays" incorporates the principles of *environmental effectiveness*, *economic efficiency*, and *fairness*.)
- 2. Protecting low-income Canadians from related increases in their living costs, without reducing the system's incentive to reduce emissions.** A carbon price would be expected to increase many costs, including the cost of heating a home or filling a car's tank with gas. The Green Budget Coalition believes that low-income Canadians must be protected from any increase in their living costs caused by a carbon price. The government can choose from many policy options to achieve this goal, including rebates, reductions in other taxes, and targeted incentives

(for example, a rebate to landlords who improve their units' energy efficiency.) Such measures should be designed in such a way that they do not cancel out the incentive to reduce emissions that carbon pricing provides. (Protecting low-income Canadians in this way incorporates the principles of *fairness* and *environmental effectiveness*.)

- 3. Rising carbon price over time.** There is a strong consensus amongst experts and political leaders that, over the longer term, we must make deep reductions to global GHG emissions. Developed countries like Canada — with high per capita emissions, high wealth and significant historical responsibility for emissions — will need to reduce GHG emissions to at least 80% below 1990 levels by 2050. As noted above, the IPCC's economic analysis found that a carbon price of \$30/tonne CO₂e would not be enough to cut emissions that deeply.

Companies are now building new facilities that can last for 40 years or more. To ensure that new infrastructure is designed with the lowest possible emissions level, governments must send a strong signal that carbon emissions will carry a price from now on, and that its price will only increase over time. (A rising and predictable carbon price incorporates all five of the Budget 2005 principles.)

- 4. Assisting affected workers in the transition to cleaner production.** A carbon pricing policy can be expected to result in a decline in the production of some highly polluting sectors while accelerating the growth of cleaner sectors. Assistance must be provided to ease the transition for affected workers. (A transition fund for workers draws on the principles of *fairness* and *economic efficiency*.)⁴⁴

⁴⁰ Calculation based on tripling the \$10/tonne carbon tax proposed by the Canadian Centre for Policy Alternatives. "Strength in Numbers: 2007 Alternative Federal Budget," p. 79. Available from http://policyalternatives.ca/documents/National_Office_Pubs/2007/AFB2007_Strength_in_Numbers.pdf

⁴¹ The five principles are found in Annex 4 (A Framework for Evaluation of Environmental Tax Proposals) in the Budget Plan 2004. Annex 4 is available from <http://www.fin.gc.ca/budget05/bp/bpa4e.htm>.

⁴² *Ibid*, p. 319.

⁴³ In testimony to the Standing Committee on the Environment and Sustainable Development, May 29, 2007.

⁴⁴ Any financial costs of such assistance could be financed from carbon pricing revenues.

D. Comparing the Tax and Trading Options

As noted above, the government could choose to put a price on carbon through either a cap-and-trade

system or a carbon tax, or through a hybrid system that uses both. Table 1 provides a comparison of the two approaches.

Table 1

	Emissions cap-and-trade	Carbon tax
Certainty Offered		
	In theory, offers certainty about the quantity of GHG reductions. In practice, governments may set a price ceiling (or “safety valve”), a practice that reduces certainty about GHG reductions.	In theory, offers certainty about the price of carbon. In practice, governments may decide to adjust tax rates frequently, thus reducing price certainty.
Environmental Effectiveness		
Polluter pays?	Yes, if targets are stringent, permits are auctioned and offsets are only offered for incremental GHG reductions.	Yes, as long as the tax level is appropriate and tax exemptions and reductions are not offered.
Ease of increasing the carbon price or the quantity of reductions	Relatively easy to increase the quantity of reductions by decreasing the number of auctioned and gratis permits. However, the resulting effect on the carbon price would be uncertain.	Relatively easy to increase the carbon tax rate to a desired price level. However, the effect on GHG emissions of the new price level would be uncertain.
Use and recipient of carbon price revenues	Money spent on offset credits ⁴⁵ (credits generated from emission reduction projects outside the cap-and-trade system) remains in the private sector, is spent on immediate emission reductions, and can be a mechanism for financing emission reductions in poorer countries. Money spent on auctioned permits goes to government and may be spent on emission reductions.	Money spent on paying carbon taxes goes to government and may be spent on emission reductions. A carbon tax could allow for the purchase of offset credits ⁴⁶ as a means to reduce taxable emissions, and to ensure that some money is redirected to immediate emission reductions, including reductions in poorer countries.
Economic Efficiency		
Applicability to individuals	By creating a market, provides a single marginal price for emission reductions, maximizing economic efficiency. However, this is only true when governments use absolute targets; intensity targets result in different types of reductions being priced differently. Not easy to apply directly to individuals (except through “carbon credit cards”). Can be applied indirectly to individuals using an “upstream” system.	A common tax rate on all sectors provides a single marginal price for emission reductions, maximizing economic efficiency. However, if governments set different tax rates/exemptions for different sectors, the unique marginal price would be lost. Easily applied to individuals directly, but effectiveness in encouraging emission reductions will likely depend strongly on visibility.
Simplicity of Administration		
	Can be designed to be simple (e.g., by auctioning 100% of permits) but allocating some permits free of charge would undermine the system’s simplicity.	Can be designed to be simple, but sectoral exemptions or variations would undermine the system’s simplicity.
Important Design Considerations		
Means of addressing distinct sectoral pressures	Flexibility to allocate permits free of charge according to sectors’ “ability to pay”. Allocation of free permits tends to be contentious, and can be vulnerable to lobbying.	Flexibility to recycle revenue in a way that reflects sectors’ needs. Revenue recycling has the potential to be contentious, and can be vulnerable to lobbying.
Consistency with international GHG reduction regime	The current international regime (Kyoto Protocol) is a cap-and-trade architecture.	Some argue that it will be easier to achieve international agreement on an effective future regime (post-2012) based on carbon taxes.

⁴⁵ Determining the “additionality” (or incrementality) of offset credits — to ensure they represent genuine emission reductions — can be challenging.

⁴⁶ See previous footnote.

From an environmental perspective, the most appealing feature of a cap-and-trade system is the certainty it can provide about the level of GHG reductions it will produce. The system starts by placing a limit on GHG emissions, and (as long as government officials monitor the system properly and it does not make use of “safety valves” that allow for increased emissions if the market price rises above a certain threshold) companies are forced to deliver those reductions, whether through improved performance on-site or by purchasing credits on the market.⁴⁷

A carbon tax cannot offer certainty about the volume of reductions without policy intervention, because companies are not compelled to reduce their emissions; they are only compelled to pay a tax on them. However, a carbon tax of \$30/tonne CO₂e, for example, would create a strong economic incentive for companies to make any emission reductions that cost less than \$30/tonne, in order to avoid paying the tax. If a carbon tax is stringent enough, it can deliver GHG reductions just as effectively as a cap-and-trade system — but only if government directs the tax revenues it raises to near-term emission reductions to the same extent as occurs under a cap-and-trade system.

As noted above, governments have already started taking steps to set a price for carbon. In Canada, Québec has imposed a modest carbon tax, while Alberta and the federal government are establishing systems of intensity targets with limited emissions trading components. Internationally, several European countries have adopted some form of carbon taxes, while the EU as a whole has a cap-and-trade system for heavy industry. The Kyoto Protocol’s “flexible mechanisms” allow countries to invest in emission-reduction projects overseas, and also permits emissions trading between countries. So a government seeking to set a bold, economy-wide carbon price would not have to start from scratch.

E. Important Design Considerations

Auctioning Permits in a Cap-and-Trade System

In a cap-and-trade system, a company must hold a permit, or allowance, for each tonne of carbon it emits. Their quantity permits represent their “cap”; companies whose emissions are above their cap can then “trade” with others to get the extra permits they need. One of the crucial design questions that governments face is how best to allocate these emission permits, as they will be in substantial demand in any stringent cap-and-trade system.

The Green Budget Coalition recommends that companies pay for at least a portion of these permits through an auction, and that the government aim to auction all permits in short order (by 2020 at the latest).

By capping GHG emissions, governments create a new market commodity. In the United States, a Congressional Budget Office study estimates that the GHG-reduction proposals currently before Congress would create between US\$50 billion and US\$300 billion per year (in 2007 dollars) in value by 2020.⁴⁸ In Canada, the value of permits at \$30/tonne CO₂e for 400Mt of heavy industry emissions — roughly the total heavy industry emissions projected by 2010 — would be \$12 billion. If the government turns those permits over to industry free of charge, a significant portion of that value could be passed on to companies as windfall profit.⁴⁹

In fact, some companies did exactly that in the European Union’s Emissions Trading System, which allocated permits free of charge and then saw electricity companies pass on the costs of reducing emissions to consumers while reaping windfall profits from the carbon market. As a result, European Union (EU) governments are now considering allowing 100% auctioning of carbon permits in the system after 2012.⁵⁰

The Regional Greenhouse Gas Initiative (RGGI), an emissions trading system for CO₂ from power plants

⁴⁷ One exception to the certainty of GHG reductions from cap-and-trade occurs when governments set targets in terms of emissions intensity instead of absolute emissions. Intensity targets require companies to reduce their GHG emissions relative to their production. But if a company’s production grows faster than expected, the actual emissions level when meeting its targets will be higher than expected. It is preferable, therefore, not to use the term “cap-and-trade” in connection with intensity targets, since they do not represent a real cap.

⁴⁸ Congressional Budget Office. Trade-Offs in Allocating Allowances for CO₂ Emissions. April 25, 2007, p. 2. Available from http://www.cbo.gov/ftpdocs/80xx/doc8027/04-25-Cap_Trade.pdf.

⁴⁹ This windfall profit would not occur in all sectors. Where companies have the ability to pass on the costs of GHG reductions to consumers (for example, by charging higher electricity prices), they can treat the value of permits as windfall profits. In sectors where the price of a commodity is set globally — as it is in the oil and gas industries — the higher costs that come from reducing emissions cut into profit margins.

⁵⁰ “Europe Moves to Make Big Polluters Pay for Emissions” (New York Times, June 5, 2007). Available from <http://www.nytimes.com/2007/06/05/business/worldbusiness/05emissions.html>.

in nine North-eastern US states due to begin trading in 2009, mandates a minimum of 25% auctioning.⁵¹ However, the state of Connecticut has already announced plans to auction over 50% of its permits, and other states are also contemplating going beyond the minimum auction level.⁵²

The revenues that accrue to government from even a modest amount of permit auctioning would be substantial. A 10% permit auction at a price of \$15/tonne CO₂e would generate annual revenues of roughly \$600 million for the federal government (based again on 400Mt of heavy industry emissions). These revenues can then be “recycled” in ways that increase the emission reductions delivered by the system and that reduce its economic costs.

Given the experience of the EU’s system, and the support for auctioning permits in the United States through the RGGI, Canada’s government should auction a rapidly increasing proportion of the permits if it opts to set a carbon price through a cap-and-trade system. During the transition period to full auctioning, the government should allocate permits according to the principles of environmental fairness and economic feasibility.⁵³

Revenue Recycling

Clearly, both a carbon tax and a cap-and-trade system with auctioned permits could raise significant revenues for governments in Canada. A well-designed carbon pricing system will use these revenues for two primary purposes:

- 1) Investing in a massive scale-up of efforts to further reduce GHG emissions (investments should be made in a way that prevents large transfers of wealth between Canada’s regions), and
- 2) Ensuring that low-income Canadians are protected from related increases in their living costs, and that impacts on affected workers are mitigated.

In her Fall 2006 report, the federal environment commissioner called for a “massive scale up of efforts” by the federal government to combat climate change.⁵⁴ Meeting the commissioner’s challenge will mean an unprecedented increase in the scope and

impact of government climate change initiatives. While private sector investment can accomplish some of this, especially under a cap-and-trade system, a truly “massive” scale-up will require an order-of-magnitude increase in government spending that reflects the seriousness of the global warming challenge. Charging a price for carbon emissions is the perfect way to raise needed revenues while sending an economic signal that will also serve to reduce emissions in and of itself.

The Green Budget Coalition believes that emission-reduction activities should receive the bulk of the revenues raised by any carbon-pricing system. Government investments in areas such as low-impact renewable energy, energy efficiency, public transit, or sustainable agriculture and forestry have a real potential to reduce Canada’s emissions above and beyond what will occur as a result of the carbon price. Investments should be made in a way that prevents large transfers of wealth between Canada’s regions.

Protecting low-income Canadians from any related increases in living costs due to carbon pricing is an equally important principle (see Section C, above), and the Green Budget Coalition supports directing a significant portion of revenues raised through carbon pricing to that end. The Green Budget Coalition also supports a Green Jobs Investment Fund or a Just Transition program for affected workers to help Canada to adapt competitively to a low-carbon future, and to help mitigate the impacts on affected workers. All such measures should be designed in such a way that they do not cancel out the incentive to reduce emissions that carbon pricing provides.

Further Considerations

In setting a price on carbon, the government will also have to consider carefully how best to:

- Convince industry that the carbon price signal is for the long term — and that companies must plan multi-billion dollar, multi-decade investments accordingly,
- Link to existing and emerging emissions trading regimes outside Canada,
- Explore mechanisms that address the competitiveness concerns of Canadian

⁵¹ The RGGI’s key documents are available from <http://www.rggi.org/agreement.htm>.

⁵² See Comments of IETA Working Group on 100% Auctioning in Connecticut’s Model Rule, p. 3. Available at <http://www.ct.gov/dep/lib/dep/air/climatechange/ietacomm.pdf>.

⁵³ For an example of how this could be done, please see the Pembina Institute’s publication *Fair Share, Green Share: A proposal for regulating greenhouse gases from heavy industry*, available at <http://pubs.pembina.org/reports/FairShareGreenShare.pdf>.

⁵⁴ Report of the Commissioner of the Environment and Sustainable Development, Fall 2006, Chapter 0: The Commissioner’s Perspective, p.11. Available from <http://www.oag-bvg.gc.ca/domino/reports.nsf/html/c20060900ce.html>.

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,

- Ensure that penalties under a cap and trade system are effective — and considerably higher than the average price for carbon,
- Implement compensating measures as needed to ensure fairness between large emitters and others⁵⁵,
- Consider the relative advantages of “upstream” and “downstream” cap-and-trade systems
- Balance regional equity, and
- Integrate an offsets system, which creates an incentive for emission reductions outside of the sectors covered by a cap-and-trade system or a carbon tax.

Several other detailed design questions for a cap-and-trade system are discussed in *Reducing Industrial Greenhouse Gas Emissions with Regulated Targets-and-Trading Systems*, a Green Budget Coalition backgrounder prepared for Budget 2007.⁵⁶

Green Budget Coalition members would be happy to work with federal officials on the detailed policy response to these and other design questions.

Alternative and Complementary Policies

The Green Budget Coalition further recommends the following measures (*all detailed later in this document*) be adopted in the 2008 budget, for their potential to complement the above recommendation in achieving a massive scale up of efforts on climate change and in internalising the environmental and human health costs of pollution into market prices.

Renewable Energy: Developing and Implementing a Comprehensive Strategy and Energy Efficiency: Setting and Achieving Targets together outline the next steps necessary for a massive scale up in the deployment of renewable energy and energy efficiency. Such a strategy would play an important role in reducing GHG emissions and other harmful air and water pollution, in providing security around energy supplies and energy prices, and in stimulating the renewable energy and energy efficiency sectors' growth, employment and capacity to capitalize on growing markets worldwide.

Sustainable energy policy also requires continued action to level the playing field between renewable and non-renewable resources. Over time, federal fiscal policies related to natural resources (including taxes, royalties, fees, and subsidies) should be fully amended to ensure that any resource extraction or production in Canada requires net payments to Canadians — through their governments (federal and provincial) — reflecting those resources' true value, today and in the future, and at a level which is fair relative to other resources. The next step is to cancel both the “Super flow-through-share” program for mining exploration in Canada and the 10% corporate mineral exploration and development tax credit, and to eliminate the 100% accelerated capital cost allowance (ACCA) for mining. See *Preserving Minerals for the Future: Ending Counterproductive Support Programs*.

The Switch Green: Energy Star Appliance Feebate (included in the *Energy Efficiency* recommendation) would further internalise the environmental and human health costs of pollution into market prices, and reduce the energy consumption of home appliances in Canada, by utilising a feebate structure to eliminate or narrow the price gap between efficient and inefficient appliances. It would reduce greenhouse gas emissions by 275 thousand tonnes per year, reduce household energy costs by \$80 million annually, and reduce water consumption and the pollutants that cause smog.

The successful internalisation of environmental and human health values into the economy also requires structural measures to permanently and effectively integrate environmental considerations into all relevant federal policy and policy-making processes. The best next step towards this goal is to fully implement the recommendations of the National Round Table on the Environment and the Economy on establishing ongoing national indicators regarding Canada's natural capital, building on the federal efforts to date. See *Better Indicators: Integrating Environmental Values into Policy*.

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⁵⁵ This will be necessary if, for example, large emitters receive gratis permits under a cap-and-trade system (i.e., the carbon price applies only to their marginal emissions) while smaller emitters face a carbon tax applying to 100% of their emissions, or if some emitters can use lower-priced offsets not available to individuals.

⁵⁶ Available at <http://www.greenbudget.ca/2007p/1.html>.

Action on Nature: Conserving Canada's Treasured Oceans & Lands

RECOMMENDATION SUMMARY:

Firmly establish Canada's position as a respected global conservation leader by fully implementing existing commitments to conserve both marine and terrestrial biodiversity:

- 1) Establish Canada's national system of marine protected areas by 2012, and implement integrated oceans management plans for Canada's oceans,**
- 2) Complete Canada's systems of national parks, national wildlife areas and migratory bird sanctuaries, and ensure their long-term protection, and**
- 3) Improve incentives under the federal Agricultural Policy Framework for protecting ecological goods and services on agricultural lands.**

Importantly, given that protected areas are a shared responsibility between the federal, provincial and territorial governments, achieving success will also require the federal government to provide leadership by coordinating nationwide action by all levels of government to complete Canada's networks of marine and terrestrial protected areas, and to ensure they are well-connected, representative of all Canadian ecosystems, and protect key wildlife habitats.

Investment Required

Total: \$1 billion over five years (2008–2012) and **\$212 million/year** thereafter

- Oceans: \$286 million over 5 years (2008–2012) and \$82 million per year thereafter,
- National parks, national wildlife areas and migratory bird sanctuaries: \$565 million over 5 years and \$130 million/year thereafter,
- Agricultural lands: \$150 million over 5 years.

Benefits for Canadians

- Conserving nature supports the Canadian economy:

- A 2005 study of the natural capital values of Canada's boreal forest estimated that the total non-market value of boreal ecosystem services is \$93.2 billion — 2.5 times greater than the net market value of boreal natural capital extraction⁵⁷
- Canadian and US visitor spending on nature-related activities in 1996 contributed \$12.1 billion to Canada's Gross Domestic Product (GDP), and sustained 215,000 jobs⁵⁸
- Parks Canada sites alone generate \$1.5 billion in visitor spending per year — five times the amount invested by government to operate them — and support 37,600 jobs⁵⁹;

⁵⁷ Counting Canada's Natural Capital: Assessing the Real Value of Canada's Ecosystem Services (2005) Mark Anielski, Sarah Wilson for the Pembina Institute. Commissioned by the Canadian Boreal Initiative. http://www.borealcanada.ca/pdf/Boreal_Wealth_Report_Nov_2005.pdf

⁵⁸ The importance of nature to Canadians: survey highlights. Federal-Provincial-Territorial Task Force on the Importance of Nature to Canadians (1999). http://www.ec.gc.ca/nature/index_e.htm

⁵⁹ Economic impacts of Parks Canada (2001) prepared by the Outspan Group for Parks Canada.

- Supports Canadian competitiveness in the international marketplace as global consumers seek to buy products from sustainable, healthy ecosystems,
- Fulfills the Prime Minister's stated mission to ensure Canada leads on the world stage, is respected abroad, and has a clean, healthy environment, by once and for all positioning Canada as a global leader in marine and terrestrial conservation⁶⁰,
- Enables concrete action on existing, past and current plans and commitments,
- Enables Canada's species and their habitat to better adapt to climate change, thus protecting essential ecological services such as clean water, air and climate regulation,
- Strategically and comprehensively achieves biodiversity conservation across Canada's marine and terrestrial environments, and northern and southern landscapes.

Background and Rationale

The Vision

Nature is at the core of who we are as Canadians. Our spectacular land and seascapes and their natural riches have shaped our past and our current identity. How we treat Canada's lands and waters, and the ecosystems they support, will determine our future.

The National Round Table on the Environment and the Economy, in its State of the Debate Report *"Securing Canada's Natural Capital: A Vision for Nature Conservation in the 21st Century"*, laid out a compelling vision for nature conservation:

*"The vision is to position Canada as a global leader in nature conservation ... by taking innovative and decisive actions to maintain the diversity and health of our unparalleled natural ecosystems for all time. Achieving this vision will provide Canada and the world with clean air and water, abundant wildlife populations, healthy communities, and a robust, diversified economy now and in the future."*⁶¹

The Increasing Urgency:

The need for decisive action to implement a conservation vision is more urgent than ever because of climate change. According to the Intergovernmental Panel on Climate Change, as the world warms, one quarter of all living species could be at risk of

disappearing — potentially the greatest mass extinction in 65 million years. As the earth warms, animals, plants and, in fact, entire ecosystems will need to shift their geographic ranges to survive—likely further north or to higher elevations. This will only be possible in land and seascapes where large protected areas support robust wildlife populations, and where these areas are connected together by "biological corridors" to allow ecosystems to gradually shift as conditions change.

Australia has recognized the need to ensure a connected wild landscape by committing, at the federal and state levels, to creating a 2800 km long "climate corridor" to facilitate wildlife adaptation to new climatic conditions. This builds on the leading role Australia has played in creating large marine protected areas such as the Great Barrier Reef. Similar initiatives in Canada, such as the Yellowstone to Yukon Conservation Initiative, have been led by non-government organizations and their partners. Canada needs to follow Australia's example by completing systems of protected areas on land and sea, and ensuring these are linked together as a network by encouraging compatible activities on working landscapes. The federal government needs to lead Canadian action towards this bold nature conservation vision.

The Path Forward

Canada has made significant international and national commitments to conserve its marine and terrestrial biodiversity.

Internationally, Canada committed under the Convention on Biological Diversity "Programme of Work on Protected Areas" to:

"the establishment and maintenance by 2010 for terrestrial and by 2012 for marine areas of comprehensive, effectively managed, and ecologically representative national and regional systems of protected areas that collectively... contribute to...significantly reduce the current rate of biodiversity loss..."

While there has been some progress towards this goal, much remains to be done, particularly in the oceans. Canada ranks 16th among OECD countries in the amount of lands set aside in terrestrial protected areas, and an appalling 70th globally in percentage of oceans protected.⁶² At the same time we are the country with

⁶⁰ www.pm.gc.ca

⁶¹ National Round Table on the Environment and the Economy State of the Debate Report, 2003, *Securing Canada's Natural Capital: A Vision for Nature Conservation in the 21st Century*.

⁶² Canadian Protected Areas Status Report, 2000-2005. (2006). Government of Canada.

the best remaining opportunity to conserve nature. After decades of effort by numerous governments, Canada is considered to have world class environmental legislation and policies in place to deliver on these commitments, including: a new *Oceans Act*, *National Marine Conservation Areas Act*, and *Species at Risk Act*; a revised *National Parks Act*; and an Agricultural Policy Framework that includes a “Greencover” program. Collectively, these tools address biodiversity conservation in both marine and terrestrial environments, and on northern and southern landscapes. However, progress on implementing these laws and policies is lagging.

Some investments were made in the 2007 federal budget to support conservation, including funding for Northwest Territories protected areas, implementing the *Species at Risk Act*, conserving ecologically sensitive private lands in southern Canada, and a small amount of funding for Oceans conservation. This is a good start. But much more can and must be done to conserve Canada’s natural ecosystems in the face of growing threats. Further investment is needed to establish and manage federal protected areas on lands and waters across Canada. And in the oceans, the scale of the challenge ahead requires a much larger investment than has been made to date.

What is needed now is concerted action to fully implement Canada’s nature conservation policies and commitments — and that is at the crux of this Green Budget Coalition recommendation.

Delivering on conservation commitments in Canada will require strong collaboration between the federal government, provincial and territorial governments, First Nations, private landowners and other partners. The federal government has a critical role to play in delivering on conservation priorities within its own jurisdiction, and in providing leadership among all levels of government and other partners to implement Canada’s commitments.

Specifically, the federal government needs to implement the following related strategies, which encompass all of our marine and terrestrial ecosystems, in the north and south:

1. Establish a national system of marine protected areas and implement integrated oceans management plans for Canada’s oceans,
2. Complete Canada’s network of federal protected

areas (national parks, national wildlife areas and migratory bird sanctuaries) and ensure their long term ecological integrity,

3. Provide greater conservation incentives to the agricultural sector by expanding and extending the Greencover Canada program under the federal Agricultural Policy Framework, and
4. Lead coordinated nationwide action by all levels of government to complete Canada’s networks of marine and terrestrial protected areas, and to ensure they are well-connected, represent all Canadian ecosystems, and protect key wildlife habitats.

Detailed Recommendations for 2008 Budget

1. Oceans Stewardship Agenda

The health of our oceans is among the most pressing sustainability challenges facing Canada today. As recognized in the 2005 report from the Commissioner of the Environment and Sustainable Development, while Canada has world-class oceans legislation, little or no progress has been made to date in implementing this legislation.

From 1996, when the Government passed the *Oceans Act*, until 2006, our total ocean area under protection has only increased from 0.43% to 0.51%. In contrast, during that same time period, Australia increased the amount of their oceans under protection from 4.5% to almost 7.5%.

In order for Canada to meet its international commitments to establish a national network of marine protected areas by 2012, the pace of progress must increase dramatically. As the lead government agency, the Department of Fisheries and Oceans must be held accountable to firm and transparent targets and timelines for getting this work done.

Recommendation:

Invest \$286 million over five years and \$82 million per year thereafter to establish a national system of marine protected areas and implement integrated oceans management plans for Canada’s oceans.

The Green Budget Coalition recommends that the government assign funding based on **firm targets and timelines to Fisheries and Oceans Canada, Parks Canada and Environment Canada** to move forward with a comprehensive Oceans Stewardship Agenda. This Oceans Stewardship Agenda should focus on:

- 1.1 Meeting Canada's international commitments to establish a national system of marine protected areas by 2012. The Green Budget Coalition recommendation would result in 14 new National Marine Conservation Areas (Parks Canada), twelve new Marine Protected Areas (Fisheries and Oceans), and nine new National Marine Wildlife areas (Environment Canada).⁶³
- 1.2 Developing and implementing holistic integrated oceans management plans for Canada's oceans. Currently, five ocean management plans are underway and need to be completed. Over the next five years, three additional management plans, one in each of Canada's oceans, should also be commenced, including on the West Coast of Vancouver Island, the eastern Arctic, and the Bay of Fundy.
- 1.3 Implementing the Canada-Ontario Great Lakes agreement provisions for the establishment of a network of aquatic protected areas in each of the Great Lakes.

While integrated oceans management plans may be the vehicle through which a national system of marine protected areas is established, highly sensitive and at risk sites will need to be provided interim protection in advance of the eventual completion of these plans.

2. National Parks, National Wildlife Areas and Migratory Bird Sanctuaries:

Canada's national parks have been a source of great pride for Canadians for over 120 years. However, our parks system is not yet complete, and our existing parks face growing threats to their ecological health.

To reach the long-stated goal of establishing at least one national park to represent each of Canada's 39 natural regions as defined in the *National Parks System Plan*⁶⁴, the federal government still needs to create 11 new national parks. Planning for many of these parks is already underway, and in some cases is well advanced. There is an opportunity for this government to step in and complete the national parks system — an initiative that would be hugely popular with Canadians.

At the same time, existing national parks continue to face increasing threats to their ecological integrity from human use pressures both inside and outside their boundaries. Parks Canada has made progress in addressing threats to national park ecosystems since a blue ribbon panel concluded in 2000 that national park ecosystems were in dire trouble and provided a blueprint for maintaining and restoring their ecological integrity⁶⁵. Since then, ecosystem monitoring programs have been established, and management and restoration projects have been implemented in various parks across the country. However, a funding gap still exists to secure long-term protection for all our national parks.

Canada's National Wildlife Areas and Migratory Bird Sanctuaries managed by Environment Canada have been chronically under funded for years to the point that the integrity of the programs is in doubt. National Wildlife Areas are established in areas of outstanding value to wildlife species, especially migratory birds and endangered species. They are typically much smaller than National Parks and much more focused on protection of wildlife and habitats. Migratory Bird Sanctuaries were established as safe havens for migratory game birds during the hunting seasons. In the Territories, where many were established to protect important nesting grounds and some are quite extensive, they also provide a degree of land use protection.

Funds allocated to these networks have been very sparse and have declined over several decades. There are several important consequences.

Monitoring of the sites is insufficient to ensure that there have not been encroachments leading to declines in the ecological integrity of the sites. An ecological monitoring framework needs to be implemented for each site in the network similar to that in place for National Parks. Property boundaries are often poorly marked and maintained. Often, it is many years between visits by habitat management staff. In the northern territories, failure to adequately monitor sanctuaries and National Wildlife Areas could have sovereignty implications. In addition, funds are so limited that required maintenance is frequently not done or seriously delayed. This can lead to

⁶³ This investment would protect sensitive marine ecosystems such as the glass sponge reefs on the west coast, horse mussel mounds in Nova Scotia, Digby Neck, Nova Scotia, the south coast of Newfoundland and cold water corals off the Atlantic and Pacific coasts as well as other important sites.

⁶⁴ National Parks System Plan, 1990, Parks Canada.

⁶⁵ Unimpaired for Future Generations: Conserving Ecological Integrity with Canada's National Parks. Parks Canada Agency, 2000; Action on the Ground: Ecological Integrity in Canada's National Parks. Parks Canada Agency, 2005.

deterioration of the site itself (for example if water control structures fell into disrepair), or of facilities such as trails or buildings. This raises liability concerns in relation to visitors who use these areas for hiking or other authorized uses.

Another consequence of lack of funding is that acquisition of new lands has virtually ceased. Some sites in the network are incomplete in that there are properties within their intended boundaries that have not yet been acquired. Also, key opportunities to protect critical wildlife habitat, such as coastal islands off the Atlantic and Pacific coasts, are being missed. The network managers are not even in a position to accept lands as gifts to the Crown because of the lack of operating budgets.

A final and significant consequence of the lack of resources is that the policy and management framework for the program requires strengthening. Site Management Plans are only up to date for a few sites and need to be either initiated or renewed. The laws, regulations and policies need to be reviewed and updated.

Clearly if this network is to fulfil its potential in protecting wildlife as part of Canada's federal protected areas system, more attention and investment is needed.

Recommendation:

Invest \$565 million over five years and \$130 million per year thereafter to complete a network of federal protected areas that are well-connected and representative of all Canadian ecosystems and key wildlife habitats. This will require three components:

- 2.1 New National Parks — Invest \$165 million over 5 years followed by \$50 million per year in on-going management funding to complete the national parks system across Canada, thereby creating 11 new national parks, acquiring land to complete three existing parks, and expanding the boundaries to complete three other national parks.⁶⁶
- 2.2 Ecological Integrity — Invest \$45M per year in on-going funding to ensure the long term ecological integrity of all Canada's national

parks, including priorities such as removing invasive non-native species that are threatening park ecosystems and restoring fire to forest ecosystems.

2.3 National Wildlife Areas and Migratory Bird Sanctuaries – Invest \$175 million over five years, followed by \$35 million per year in ongoing funding to update the policy and legislative framework governing National Wildlife Areas and Migratory Bird Sanctuaries, expand the system to protect some of Canada's most important wildlife habitat, and ensure there are adequate funds for their long term protection and management. (See "Conserving our Migratory Birds", later in this document, for more details.)

3. Agricultural Lands:

Converting environmentally sensitive agricultural land to grass cover provides a broad range of ecological benefits such as reduced greenhouse gas (GHG) emissions and improvements in the quantity and quality of habitat available for fish, waterfowl and other wildlife. Converting environmentally sensitive lands that are marginal for agricultural production will help producers lower their input costs on cropland through the reduced need for gully repair, reduced stone/rock picking, reduced herbicide and fertilizer inputs, and reduced machinery operating costs.

Recommendation:

Invest \$150 Million over the next five years to enhance the Greencover Canada forage conversion program of the federal Agricultural Policy Framework and expand the Watershed Evaluation of Beneficial Management Practices (WEBs) study.

- 3.1 Invest \$100 million to convert at least two million acres of annual cropland to permanent cover in the Prairie Provinces, and restore vital riparian areas in Eastern Canada, the Atlantic Provinces, and British Columbia. This investment will provide greater incentives to agricultural producers to restore permanent cover on their land.
- 3.2 Invest \$50 Million to expand the existing Watershed Evaluation of Beneficial Management Practices (WEBs) study. In order to properly evaluate the environmental and

⁶⁶ This investment would directly result in new national parks in: the South Okanagan region of BC; southern Yukon or northern BC; the East Arm of Great Slave Lake, NWT; Manitoba Lowlands; Mealy Mountains of Labrador; one new park in Ontario; four new parks in Quebec and one new park in Nunavut. It will also result in land acquisition to complete the Bruce Peninsula National Park (ON), Gulf Islands National Park (BC) and Grasslands National Park (Sask.). And it will result in boundary expansions to complete Nahanni National Park Reserve (NWT), Tuktoyaktuk National Park (Nunavut) and Waterton Lakes National Park (Alberta/BC).

economic benefits of Greencover Canada and other agricultural land management practices this study should be expanded. This investment will ensure the continuation of work ongoing in the seven sub-watershed study sites across Canada and enable other sites to be added. It will provide the linkage between land management practice and environmental improvements, the results of which can form the foundation of future government programs and private market development for the provision of ecological goods and services.

Alternative and Complementary Policies:

Partnerships for engaging Canadians in conservation: Preserving Canada's most outstanding natural land and seascapes requires the support of engaged citizens who understand the importance of protecting nature as essential to protecting the life support system of the planet. As Canada's population becomes increasingly urbanized and diversified, opportunities for citizens to experience nature directly become more rare and more difficult to arrange. To ensure that Canadians continue to appreciate and support the need to conserve nature, and continue to reap the extensive health and other benefits of protecting and experiencing wild nature, the federal government should ensure that investments in conservation include environmental education as an integral part of their programs. Delivering on this mandate can be most effectively and efficiently done in partnership with conservation organizations and other groups across Canada.

Invasive Species:

The spread of alien invasive species, like habitat loss, is considered one of the greatest threats to biodiversity.

Invasive species threaten the health of our ecosystems, and have huge impacts on our economy and our health (for example, the zebra mussel invasion of the Great Lakes, and the West Nile virus). Invasive species, if unchecked, can throw large ecosystems out of balance, and result in huge costs to respond to the impacts. For example, tens of millions of dollars have already been spent repairing the damage caused by zebra mussels to infrastructure in the Great Lakes system. If unchecked, the cost over the next decade is expected to rise another \$5 billion⁶⁷. Implementing a comprehensive nation-wide invasive species strategy to address the threat of existing invaders, and to prevent future invasions is required.

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⁶⁷ Environment Canada

The Great Lakes and St. Lawrence River: Restoring, Protecting and Enhancing the Region

RECOMMENDATION SUMMARY:

Build upon the progressive actions in Budget 2007, which included funding for the International Joint Commission and for clean up of polluted Areas of Concern, by developing and investing in a comprehensive, long-term sustainability plan to effectively restore, protect and enhance the environment of the combined Great Lakes and St. Lawrence River region. Priority areas for investment should be:

1. Developing a shared, basin-wide vision, amongst the governments and residents of the surrounding provinces and states, to foster better coordination and consistency while improving capacity building and supporting action oriented research,
2. Upgrading water and wastewater infrastructure,
3. Ensuring the clean up and de-listing of existing Areas of Concern and Zones d'intervention prioritaire,
4. Preventing contamination from substances of emerging concern,
5. Protection from invasive species,
6. Protecting endangered species and enhancing biodiversity and habitat.

Investment Required

\$7.5 billion over the next ten years (2008-2017) with an immediate commitment of **\$4.5 billion** over the next five years (2008-2012).

Further resources should be allocated to support upgrades in water and wastewater infrastructure in the St. Lawrence River region, as these requirements are more clearly identified.

Benefits for Canadians

- Ensure a clean, healthy source of drinking water for millions of Canadians living within the basin,
- Strengthen the ecosystem's capacity and resilience to support strong economic and social systems,

- Facilitate a healthy, growing economy and business climate which:
 - o Provides good jobs,
 - o Delivers quality goods and services, and
 - o Utilizes its natural resources in a manner that ensures access to those natural resources for future generations.
- Increase appreciation and responsibility by residents for the treasure that is their region, and
- Improve human health of the region's residents.

Background and Rationale

The Great Lakes region⁶⁸ is home to 103 million people. If it were taken as a country the Great Lakes regional non-farm economy, at \$4.1 trillion GDP, would be ranked as the third largest in the world, after

⁶⁸ Ontario and Quebec plus the eight Great Lakes States.

only the United States (US) and Japan. The region supports 48.5 million jobs and is home to nineteen of the top-ranked 100 universities in the world. One of the reasons the region developed into such a global strength is because the Great Lakes region contains about 20% of the world's fresh surface water and is a place where people want to live and work and enjoy the recreational opportunities provided in the Great Lakes St. Lawrence River basin.

The region is a unique economic, social and cultural community and a vital global hub of activity. Furthermore, the health and quality of life of the region's residents depends greatly on the environment - on clean air and clean water, and on a healthy and safe place to build a sustainable future.

The Vision

Given the above, it is of great importance to achieve the following vision for the Great Lakes - St. Lawrence Region:

The Great Lakes and St. Lawrence River region is one where people, the environment, economy and cultures are healthy and thrive for generations to come.

The Path Forward

The successful achievement of this vision will require a comprehensive, long-term sustainability plan, incorporating many mutually supportive elements.

The *Great Lakes Water Quality Agreement (GLWQA)* is under review and there is a general sense that while the Agreement has been hugely beneficial to progress in protecting the Great Lakes; it is out of date and needs to be re-thought. New issues have come along including climate change, invasive species as well as development and growth pressures and we will likely need new agreements and approaches to reach the goals that a new GLWQA or its successor, will require. Despite the federal government's commitment to safeguarding Canadians from environmental threats and toxics problems through a myriad of Great Lakes and St. Lawrence River initiatives, the federal government's Great Lakes Basin 2020 initiative (announced in 2000) was a good plan that badly needs to be updated and there is a need for order-of-magnitude increases in federal spending on the Great Lakes.

The Budget 2007 allocations of \$5 million to the International Joint Commission, for a study of the upper Great Lakes, and of \$11 million to clean up contaminated sediment in eight Great Lakes Areas of Concern⁶⁹ were an important indication that the Canadian government is attentive to the importance of action on the Great Lakes and St. Lawrence River region.

The Great Lakes Regional Collaboration in the US, stimulated by the White House, has resulted in the development of a US work plan for restoration of the Great Lakes that has been estimated to cost about US \$20 Billion over 5 years. It would include funding for priorities including invasive species, habitat restoration, coastal management, clean up of US Areas of Concern, non-point source pollution controls, toxics, and work on indicators and information.

While the White House has not yet approved an expenditure of this scale, the order of magnitude is indicative of the challenge we face in Canada. Canada has not yet undertaken an equivalent, broad-based consultative initiative to the US Great Lakes Regional Collaboration initiative.

Detailed Recommendation

The federal government should build upon its actions in Budget 2007 by developing and implementing a long-term sustainability plan for the Great Lakes - St. Lawrence River region with an investment in the order of \$7.5 billion over the next 10 years and an immediate commitment of \$4.5 billion over the next five years to understand and protect public health, the environment and economic resources.

The priority areas for investment should be the following:

1. *Developing a shared, basin-wide vision, amongst the governments and residents of the surrounding provinces and states, to foster better coordination and consistency while improving capacity building and supporting action oriented research — A common vision that respects each jurisdiction (federal, provincial and local), but moves towards concrete shared goals, must be created and implemented. This vision will guide capacity building and support action oriented research to improve our understanding of the current condition and the process of remediation and protecting the*

⁶⁹ There are 15 Canadian Areas of Concerns in the Great Lakes.

lakes. A fund of \$50 million over 10 years should be provided for the development and coordination of the vision and to fund collaborative research between independent scientists and the government. This would result in better coordination, consistency, cost efficiencies and a more comprehensive understanding of common indicators for Great Lakes and St-Lawrence ecosystem health and advance activities to improve and protect the state of the system from the source waters of the Great Lakes to the ocean.

Budget: \$50 million over 10 years

2. *Upgrading water and wastewater Infrastructure*

— The Government of Canada needs to upgrade wastewater infrastructure in Ontario's Areas of Concern (AoC) and in the zones d'intervention prioritaire (ZIPs) along the St. Lawrence River, in Quebec. This will require approximately \$3.0 billion over the next five years, based on Environment Canada estimates⁷⁰ that approximately \$2.4 billion is required for the AoC's and on Green Budget Coalition estimates of a requirement in the order of \$0.6 billion for the ZIPs. The federal government should contribute \$1.5 billion of this total, to be matched by provincial governments.

Furthermore, when considering Great Lakes sites outside the Areas of Concern, and upgrading water and wastewater infrastructure, figures from the Ministry of Public Infrastructure Renewal indicate that there is an additional infrastructure deficit of approximately \$15.7 billion⁷¹. The Green Budget Coalition suggests that these costs be equally shared with the provincial and municipal governments, and calls on the federal government to provide \$5.2 billion over the next 10 years to a Great Lakes Clean Water Infrastructure Fund in order to support the upgrading of all water and wastewater infrastructure in the Great Lakes basin for the protection of public health and the Great Lakes and St-Lawrence ecosystem. The distribution of these funds should be contingent on municipalities providing an effective and independently monitored water conservation plan, and funds should not be provided where they would facilitate transfers of

water between watersheds within the Great Lakes basin ("intra-basin transfers").

Further resources should be allocated to support upgrades in water and wastewater infrastructure in the St. Lawrence River region, as these requirements are more clearly identified.

Budget: \$1.5 billion for AOCs and ZIPs over 5 years, and \$5.2 billion for a Great Lakes Clean Water Infrastructure fund over 10 years

3. *Ensuring and coordinating the clean up and de-listing of the Canadian Areas of Concern (AOCs) and implementation of Zones d'intervention prioritaire (ZIP) remedial action plans* — Based on the estimates from the US Great Lakes Collaborative (US \$1.5 billion to US \$4.5 billion to clean up contaminated sediment stateside), and the contaminated sediment estimates for Canadians AOCs (significantly less than those on the US side of the lakes), efforts to clean up Canadian AOCs and implement ZIPs require an additional investment of \$300 million dollars over the next 10 years to clean up contaminated sediment. This should include a commitment on behalf of the government to coordinate a network of the AOCs, ZIPs, Watershed committees and Marine Protection Zones so that resources and experiences can be shared between government and non-governmental groups carrying out different projects on the ground.

Budget: \$200 million over 10 years

4. *Preventing contamination from substances of emerging concern* — A host of new chemicals have emerged that have lasting impacts on human health and ecosystems. As part of a comprehensive approach to managing these new and emerging threats and protecting public health, \$50 million over five years needs to be directed towards the development and implementation of water treatment technologies and measures that address substances of emerging concern.

Budget: \$50 million over 5 yrs

⁷⁰ Environment Canada, personal communication.

⁷¹ The Ministry of Public Infrastructure Renewal, in Watertight, The Case for Change in Ontario's Water and Wastewater Sector; Ministry of Public Infrastructure Renewal, Ontario (May, 2005), estimated that Ontario has an investment deficit of \$34 billion over the coming 15 years for water and wastewater infrastructure, of which \$25 billion is required for capital renewal (including \$11 billion for deferred maintenance) and \$9 billion for growth. The Green Budget Coalition further estimated that 80% of this funding is required for the Great Lakes Basin, that 2/3 of this funding would be required in the next ten years, and that these costs would be equally shared between the federal, provincial and municipal governments, and took into consideration the \$2.4 billion already discussed for the AoC's wastewater. The \$15.7 billion figure was thus calculated as follows: $34b \times 80\% \times 2/3 = 18.1b - 2.4b = 15.7b$. Furthermore, $15.7b / 3 = \$5.2b$ per government.

5. *Protection from Invasive Species* — To further efforts to understand and prevent the infiltration and proliferation of invasive species in the Great Lakes protecting the entire ecosystem and a variety of important economic resources, Canada needs to increase financial support for existing international institutions. The Great Lakes Fishery Commission conducts research and administers the international Sea Lamprey programme in the Great Lakes at a cost of \$15 million annually (Canada contributes roughly 1/4 of the Sea Lamprey programme's current budget). To support research and improve efforts to protect against invasive species and to ensure that Canada is meeting its international obligations, federal contributions to the Great Lakes Fishery Commission should be increased by roughly \$10 million annually with the increase going towards research and programmes to protect the lakes against invasive species.

Budget: \$100 million over 10 years

6. *Protecting Endangered Species, Enhancing Biodiversity and Habitat* — The pressures on biodiversity within the basin are intense. Habitat loss and degradation are widespread and continue. In the heavily impacted landscapes of the basin, a \$400 million investment over 10 years in the restoration and enhancement of coastal and headwaters wetlands in the Great Lakes and St. Lawrence would deliver significant short- and long- term benefits to water quality and quantity, to fisheries, and to wetland dependant species at risk. This initiative would be complementary to water infrastructure investments as well as to specific actions within AOCs, and would also mitigate the climate change drivers. See Action on Nature: Conserving Canada's Treasured Oceans & Lands (earlier in this document).

Budget: \$400 million over 10 years

Alternative and Complementary Policies

The people of Canada and the United States need to develop and share a common vision for the region and work together as stewards to protect and improve the unique shared Great Lakes — St. Lawrence resource for use by future generations. Within its jurisdiction, the Government of Canada needs to enhance its capacity to protect the region's waters through close cooperation and coordination with the government of the United States as well as the Provinces of Ontario and Quebec.

Respecting the regulatory development initiative being taken under the auspices of the Canadian Council of Ministers of the Environment, a national strategy for

the treatment of wastewater is required and would protect bodies of water nationwide. A model sewage by-law for municipalities, and a national sewage treatment standard that incorporates secondary and tertiary treatments, are required. To complement these efforts, federal legislation including the *Canadian Environmental Protection Act (CEPA)* must maintain the multi-barrier protection approach, which includes preventing contaminants from entering the wastewater stream, by regulating chemicals in consumer goods whose manufacturing, use or disposal can have potential impacts on the environment and human health.

CEPA should also incorporate a greater focus on Great Lakes issues. Consistent with the ecosystem-based approach set out in the preamble of the Act, the Great Lakes should be designated a "significant area" under the Act, allowing the minister to indicate a governmental commitment to areas that are in need of particular attention in the form of additional monitoring, research, or reporting mechanisms not already provided for under the Act, for example.

A major issue that has recently emerged is the relationship between local and global climate change and the Great Lakes. The influence the Great Lakes have on the surrounding climate is considerable and changes to lake levels, temperature and salinity could have lasting impacts on local weather systems. The potential implications are enormous and efforts must be taken to understand what the impacts might be and how these might be mitigated.

Stronger water conservation efforts are needed to protect water resources, habitat and quality, and to respond to the impacts of climate change. National water conservation programmes, public education, incentives and standards for industry, agriculture and homes need to be strengthened. A labeling standard, similar to the U.S. EnergyStar designation, should be created for water efficient technologies. Model bylaws and building codes that facilitate water conservation should be created as guidelines for provincial and municipal governments. Funds should also be dedicated to promote municipal water conservation measures. Efficient means of delivering these funds would include providing financial assistance to municipalities to implement universal residential water metering, full-cost pricing and increasing existing financial support to the Green Municipal Fund operated by the Federation of Canadian Municipalities. These actions would spur innovation

and market growth in water efficiency technologies and would extend the life of existing water supplies, thus decreasing the immediate need for infrastructure expansion and reducing the energy required to pump and treat water, thereby saving money and reducing greenhouse emissions. These efforts would also support provincial commitments to implement the Great Lakes — St Lawrence River Basin Sustainable Water Resources Agreement of 2005.

Protecting headwaters, wetlands and coastal habitats as natural heritage sites would not only preserve the natural beauty of the Great Lakes and St-Lawrence River for future generations, but also safeguard the health of those whose drinking water comes from the Great Lakes and St-Lawrence River, and protect critical habitat for numerous endangered species.

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Preserving Minerals for the Future: Ending Counterproductive Support Programs

RECOMMENDATION SUMMARY:

Advance Canada towards a sustainable resource future by canceling the “Super flow-through-share” program for mining exploration in Canada, and the 10% corporate mineral exploration and development tax credit, and eliminating the 100% accelerated capital cost allowance (ACCA) for mining.

Tax Expenditure Implications

Annual savings for the Government of Canada could be over \$70 million annually, including approximately \$37 million⁷² from ending the focused super flow-through-share program for investors, \$35 million⁷³ from cancelling the 10% corporate mineral exploration and development tax credit for mining companies, and even more from eliminating the 100% ACCA for mining⁷⁴.

These funds could be much better directed to improving Environment Canada’s capacity to analyze the ecological, social and cultural costs of existing and proposed mineral developments, and to strengthening Natural Resources Canada’s metals recycling program.

Benefits for Canadians

- Eliminate unmerited support programs to environmentally damaging and resource intensive activity,
- Protect Canada’s valued ecosystems from mining exploration of questionable merit,
- Institute an increasingly level playing field between the non-renewable and renewable/re-usable resource sectors,
- Reduce our reliance on boom-and-bust economics, and

- Make over \$70 million annually available to the Government of Canada.

Background and Rationale

To achieve sustainability, the federal government must progressively amend federal fiscal policies related to natural resources (through taxes, royalties, fees, charges and subsidy removal) to ensure that these resources’ respective prices accurately reflect their true current and future value, as well as the full costs to the environment and society caused by their production.

The Green Budget Coalition commended the federal government for its actions in Budget 2007 to start the process of removing support programs for the oil and gas sector by phasing out the 100% accelerated capital cost allowance (ACCA) for oil sands. The government now needs to continue to eliminate harmful support to the oil and gas, nuclear and mining sectors.

The OECD emphasized this need when it called for a “[s]ystematic review of environmentally harmful subsidies in sectors such as transportation and energy.”⁷⁵ Reviewing and eliminating government support for environmentally damaging activities is also a critical component of meeting Canada’s commitment

⁷² Finance Canada (March 19, 2007): *Budget Plan 2007*, p. 244. The net cost of the one-year extension to March 31, 2008 was estimated at \$75 million over the next two fiscal years, including projections for a revenue reduction of \$105 million in 2007-08, and a revenue increase of \$30 million in 2008-09.

⁷³ Finance Canada (2006): *2006 Tax Expenditures and Evaluations report*, p. 28. http://www.fin.gc.ca/taxexp/2006/taxexp2006_e.pdf.

⁷⁴ The cost of the mining ACCA is currently under investigation. Contact amyt@pembina.org for further information.

⁷⁵ OECD. 2004. *Environmental Performance Review: Canada*. Paris, France: OECD.

to the OECD's *Environmental Strategy for the First Decade of the 21st Century*.⁷⁶

Mining exploration in Canada has caused substantial damage to Canada's fragile ecosystems and is creating serious conflicts with affected First Nations and other communities. In addition, it has interfered with the realization of other more sustainable economic opportunities, such as subsistence hunting, trapping and fishing, tourism, agriculture and commercial fisheries. It is rare that a mineable deposit is found. Despite the conflicts generated by mineral staking rushes and the impact of irresponsible mineral exploration on the landscape, the federal government continues to provide excessive subsidies to investors in mining exploration, which exacerbate environmental problems by financing exploration that would not otherwise be commercially viable.

The next specific steps towards a sustainable resource future for Canada are to cancel both the "Super flow-through-share" program for mining exploration in Canada and the 10% corporate mineral exploration and development tax credit, and to eliminate the 100% ACCA for mining.

The 'super' flow-through-share program for mining, a tax incentive for "grassroots" mineral exploration, was introduced in October 2000 as a temporary measure to help moderate the effect of a global downturn in mineral exploration in the 1990s, but has been extended five times. The original reasons for introducing the program are no longer valid, and legitimate exploration is adequately stimulated by high commodity prices. The program provides a 15% tax credit to investors, a benefit that is not available to other users of flow-through shares.

The federal 10% corporate mineral exploration and development tax credit, institutionalized in 2004, enables certain mineral exploration companies to receive a 10% credit for an investment in a mineral exploration project on previously undeveloped land. This tax credit is both unnecessary — as companies would undertake this exploration without a subsidy — and destructive, as it encourages irresponsible exploration companies to undertake prospecting activities in areas that the market would consider to be too risky.

With the generous 100% Accelerated Capital Cost Allowance for Mining in place, a mining company only pays federal income tax on the income from a mining operation once it has written off all of the eligible capital costs. These tax rules make mining projects much more attractive than they would otherwise be, and provide an incentive that over stimulates the pace of capital investment and development.

Please see <http://www.greenbudget.ca/2008/4.html> for a more in-depth version of this recommendation, including more details on these three tax concessions, the advantages of metals recycling over extraction of virgin materials, the merits of ending support programs to damaging activities, and the Green Budget Coalition's vision for aligning fiscal policies with resource sustainability.

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⁷⁶ OECD. 2001. *OECD Environmental Strategy for the First Decade of the 21st Century*. Adopted by OECD Environment Ministers. Paris, France: OECD.



Energy Efficiency: Setting and Achieving Targets

RECOMMENDATION SUMMARY:

Support a massive federal scale up of efforts on climate change, responding to the call from the federal environmental commissioner, by fully funding the following energy efficiency opportunities:

- 1) Providing targeted support for low-income housing retrofits. This segment of the population is least able to finance retrofits yet is most affected by increasing energy prices. **Target:** Retrofit all low-income housing over 10 years. \$500 million over 5 years.
- 2) Implementing a 5-fold increase in the ecoEnergy retrofit program for residential housing. **Target:** Retrofit 20% of Canadian homes by 2012 and 100% by 2030. \$1 billion over 5 years.
- 3) Providing incentives for commercial and institutional building retrofits under a new component of the ecoEnergy energy efficiency programs, with specific funding set aside for the multiple unit social housing (MUSH) sector. **Target:** Retrofit 20% of Canadian buildings by 2012 (30% improvement in building energy performance) and 100% by 2030. \$1 billion over 5 years.
- 4) Providing tax credits for new green buildings, responding to international recommendations on green buildings. **Target:** All new Canadian buildings are net zero energy by 2030. \$500 million over 5 years.
- 5) Implementing a *Switch Green: Energy Star Appliance Feebate* program in order to reduce the energy consumption of home appliances in Canada not covered by ecoEnergy programs. This proposal eliminates or narrows the price gap between efficient and inefficient appliances by offering a modest rebate on Energy Star appliances that meet the Energy Star criteria, and levying a modest fee on those that do not. This program would support the goal of regularly increasing the minimum standards for efficiency of all energy-using products. This proposal can be revenue neutral.
- 6) Implementing the Early Adopters — Commercial Electric/Hybrid Vehicle program. The program would catalyze the adoption of hybrid vehicles into Canadian commercial fleets. \$200 million over 3 years.

Total Investment: \$3.2 billion over 5 years.

Benefits to Canadians

Energy efficiency and conservation are widely acknowledged to be the most environmentally beneficial, cost effective means of securing energy supply. Improving efficiency in all sectors of the

economy, including transportation, transit and industrial sectors, will have tangible impacts on air quality, will reduce Canada's GHG emissions, and will, furthermore, stimulate a versatile energy efficiency industry capable of creating jobs for Canadians across the country.

Background and Rationale

In her fall 2006 report to Parliament, Environment Commissioner Gélinas outlined the need for a “massive scale up” of federal efforts to effectively address climate change. The Green Budget Coalition believes that efficiency and conservation must be the cornerstones of an energy plan that responds to this call.

Working papers prepared for the Council of Energy Ministers (CEM) show that major improvements in all sectors are both possible and cost effective, but only if action is taken by governments to remove barriers to market transformation and to aggressively regulate efficiency of equipment, buildings and vehicles. These CEM papers recommended short-term targets for the built environment, including 2012 and 2020 milestones.⁷⁷

Each of these recommendations, including the *Switch Green* and *Early Adopters* programs, are examples of cost-effective programs that the federal government could implement quickly and that would rapidly create tangible impacts for Canadian households, consumers and businesses. Each sets the stage for the accomplishment of meaningful longer-term targets.

We have, however, reached a point where a handful of recommendations cannot be considered in isolation from a larger strategy. All future federal budgets should include new financial support programs for efficiency in the industrial sector and for all modes of transportation and freight movement.

In particular, the Green Budget Coalition urges the federal government to move quickly to develop and implement — in coordination with provinces, cities and municipalities — a comprehensive public transit strategy. The Federation of Canadian Municipalities

recently developed a national transit strategy that could serve as a starting point for federal initiatives.⁷⁹ National public transit strategies should be inclusive of both intercity and urban transit initiatives.

Energy use for residential and commercial buildings is responsible for over 10% of national greenhouse gas emissions. This Green Budget Coalition recommendation highlights some of the many opportunities to reduce the energy use in existing building stock and to ensure that future buildings are as efficient as possible.

The federal government must continue to provide leadership by working with provinces on adopting binding short and long-term targets for energy efficiency. These should be supported by complementary regulatory actions in the industrial and transportation sectors, as well as minimum efficiency standards for energy-using products.⁸⁰ All of these actions should be viewed as complementary to the Green Budget Coalition’s Carbon Pricing recommendation.

Please see www.greenbudget.ca/2008/3.html for a more detailed description of this Green Budget Coalition recommendation for Canada to set and achieve energy efficiency targets.

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⁷⁷ More detail on targets and milestones is included in the Green Budget Coalition’s more detailed Energy Efficiency recommendation available at www.greenbudget.ca/2008/3.html.

⁷⁹ Federation of Canadian Municipalities. <http://www.fcm.ca/English/media/press/march52007.html>.

⁸⁰ Minimum energy efficiency standards should meet or exceed the best levels in North America, be extended to cover all energy-using equipment (and those that influence energy use), and be upgraded to the best in North America every four years.

Renewable Energy: Developing and Implementing a Comprehensive Strategy

RECOMMENDATION SUMMARY:

Ensure that low-impact renewable energy sources become the primary focus of Canada's long term energy supply strategy by allocating \$5.074 billion in new funding, over fifteen years, to:

- 1) Introduce a national tax credit for residential and small business solar water heaters as a supplement to the ecoEnergy for Renewable Heat. *Target:* 1,000,000 residential and small business solar systems in 10 years. \$500 million.
- 2) Scale up the current ecoEnergy for Renewable Power incentive program by three fold over the next five years with specific set-asides for different regions of the country and a level of incentive that matches the development status of each technology. *Target:* 12,000 MW installed capacity by 2012. \$3.5 billion over 15 years.
- 3) Support renewable energy deployment in the North. *Target:* 85 MW of wind capacity installed by 2018.⁸¹ \$74 million over 15 years.
- 4) Support sustainable, renewable biomass heating fuels through the ecoEnergy program. *Target:* 1.25 million homes using renewable heating fuels by 2018. \$1 billion over 10 years.⁸²
- 5) Develop sustainability criteria for renewable agricultural and biofuels. *Goal:* Establish criteria in the bio-energy sector that ensures sustainable use of Canada's natural resources, including forests and agricultural areas. It is strongly recommended that existing and future financial support for renewable fuels be limited to fuels that meet established criteria.

Total Investment: \$5.074 billion over 15 years

Background and Rationale

Canada is a vast country with significant and untapped opportunities to develop a renewable energy sector that provides for the needs of Canadians and protects the environment. These recommendations are designed to

kick-start a massive scale up of renewable energy from coast to coast to coast.

Renewable energy technologies such as wind and solar are among the fastest growing industries in the world — helping Canadians capitalize on such growth will provide economic benefits across the country

⁸¹ See Canadian Wind Energy Association, at www.canwea.ca. The original version of this proposal, for only 65 MW, was submitted to Finance Canada in November 2005, and is available at http://www.canwea.com/images/uploads/File/Wind_Energy_Policy/Federal/Budget_06_ReCWIP.pdf.

⁸² An average Canadian home requires 50 GJ of heat per year. During years 1-5 the program would provide incentives for the equivalent of 250,000 homes. In the subsequent five years, having established a growing market, the program would provide an incentive sufficient to heat the equivalent of 1.25 million homes. This fuel is equally useable in commercial and institutional applications, e.g. biomass boilers.

in the form of cost-effective energy supply, reduced vulnerability to increasing conventional energy costs, and job creation in a growing industry. Increasing use of low-impact renewable energy will also reduce harmful air, water and climate pollution caused by our current reliance on fossil fuels.

In 2007, the federal government introduced a series of ecoEnergy programs to support the development of renewable power, heat, and fuels. While these programs re-instated federal government commitments to renewable energy, they now need to be augmented and accelerated so that Canadian homeowners, businesses and industries are capable of realizing the economic and environmental benefits of renewable energy.

The Green Budget Coalition is asking that specific resources be set aside to support the development of nascent renewable energy industries. The recommended programs – a national tax credit for solar water heaters, and incentives for sustainable biomass resources – will support the formation of self-sustaining, viable industries. Scaling up the ecoEnergy for Renewable Power program and providing different incentives for each type of power source will provide the necessary assurances to investors, project developers, and all renewable power industries as they forge a new, sustainable, and diverse path for electricity supply in Canada.

Similarly, we believe that providing some regional specificity to programs that support the development of renewable energy will ensure a robust industry that benefits all Canadians. In particular, providing an enhanced program for the North will provide job creation and security of energy supply and cost in a region that needs both.

This scale-up is necessary for Canada to match investments being made by our partners in the Group of Eight (G8), Asia-Pacific Economic Cooperation (APEC), and Organisation for Economic Co-operation and Development (OECD). More importantly, these are investments in the creation of a clean, secure energy supply for generations of Canadians to come.

Please see www.greenbudget.ca/2008/2.html for a more in-depth version of this Green Budget Coalition recommendation for developing and implementing a comprehensive renewable energy strategy.

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Conserving our Migratory Birds

RECOMMENDATION SUMMARY:

Invest an additional \$150 million over 5 years in migratory bird conservation through programs managed by Environment Canada and by its partners, who contribute complementary skills, resources and opportunities. Maintain the program beyond that point at \$35 million above current values.

Rationale:

Birds represent not only an important part of our environment in their own right but are a cost effective tool to monitor the health of our entire environment.

The decline of birds in Canada represents a literal 'canary in the coal mine' for our environment. For many reasons, birds are effective bioindicators of the health of their, and our, physical, chemical and biological environment. They occur broadly in Canada and beyond our borders, and thus integrate the effect of environmental stressors. Yet 25% of the 350 species of birds that occur regularly in Canada are in decline or are otherwise of concern.

The federal government's recognized migratory bird responsibilities and accountabilities, which derive from the *Migratory Birds Convention* signed with the United States Government, mean these concerns should be incorporated into all policies, programs and actions affecting nature in Canada, for terrestrial, freshwater and marine areas. However, Canada's commitment to migratory bird science and conservation has been eroding over the past 30 years, notwithstanding some notable exceptions (investments in the North American Waterfowl Management Plan which helped lead to the continent's largest combined conservation effort, and in birds at risk through the *Species At Risk Act*).

Bird conservation programs need to be enhanced to help those species, which are in decline, before they are put on the critical list. Once species are on the critical list, they must be addressed through the onerous and expensive auspices of Species at Risk programs. Keeping common birds common is a much more effective strategy.

Canada can capitalize on the existence of broad coalitions of willing partners, with mature plans, to help advance migratory bird conservation. An important example is the North American Bird Conservation Initiative consisting of federal and provincial/territorial agencies, conservation NGOs and industry associations in Canada. The partnership extends to the United States and Mexico. Furthermore, there are tens of thousands of Canadians interested in actively supporting bird conservation through private funds and countless thousands of volunteer hours.

A fundamental underpinning of migratory bird conservation is monitoring and research. Monitoring tracks changes in abundance and distribution of bird species and research is often required to understand which stressors are affecting the populations and to design possible solutions. Research will provide input to modeling which will help predict the future of bird populations.

Enhanced monitoring and research is necessary for the following specific purposes among many others.

The federal government faces a difficult policy and regulatory issue centered around the incidental take of migratory birds arising from forestry, agriculture and other industries. Central to developing and implementing any solutions will be information on the status and trends of species affected within and outside of the affected areas.

The federal government has responsibilities to ensure adequate environmental assessments for proposed developments that fall within its jurisdictions. Again adequate monitoring information is essential.

The federal government sets the hunting seasons for migratory game birds and it is imperative that it monitors the impact of its regulations on the hunted species and on the hunters.

The federal government is accountable to Canadians for reporting on the status and trends of the migratory birds that it is charged with protecting.

Climate change and other broad scale stressors are causing significant changes to landscapes and species, which need to be understood in order to try to develop adequate adaptation strategies. Among species most affected will be those in Canada's Arctic where our stewardship responsibilities are that much more poignant because of sovereignty implications.

In Canada, approximately 600 globally and nationally significant Important Bird Areas have been identified

and reported to Birdlife International. Canada needs to develop a monitoring framework to assess the ecological integrity of these sites and to design strategies for protection where these are found to be wanting.

Another important reality of migratory bird conservation is that Canada shares its species with many other nations. Whatever we do in Canada may be of little import if conservation is not strong in other nations. Canada has historically played a small but important leadership role in conservation efforts in other nations of this Hemisphere. Many of those countries have relatively weak wildlife conservation infrastructures but they are improving and Canada is in a position to play a much more important role in monitoring, research, conservation planning and capacity building. This should be a central element to a responsible Migratory Bird Program in Canada.

A reinvestment in migratory bird conservation is necessary in order for the federal government to meet its accountabilities under the *Migratory Bird Convention* and enabling Act in Canada.

Total investment: \$150 million over 5 years and, thereafter, **\$35 million** annually

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Extending Ecogift Tax Incentives to Inventory Lands

RECOMMENDATION SUMMARY:

Amend the Income Tax Act to ensure that tax incentives provided under the Ecological Gifts Program apply to donations of ecologically significant lands held by corporations or individuals as inventory of their business.

Background and Rationale

The Government of Canada, in its 2006 Budget, took important steps to help Canada's landowners and conservation groups in their efforts to preserve Canada's natural heritage by reducing the capital gains inclusion rate on ecological gifts to zero. Such a measure has long been advocated by the conservation community and will encourage private landowners to donate land for conservation purposes. The Green Budget Coalition sincerely appreciates the Government's foresight in this regard.

However, certain donations of ecologically significant lands — lands held as inventory rather than as capital property — still do not qualify for preferential tax treatment under the Ecological Gifts program. These lands are often near urban areas and under tremendous

pressure that threatens their ecological values.

The disposition of land held as inventory yields a profit rather than a capital gain (because it is not a "capital asset"), one hundred per cent of which is deemed income for income tax purposes. The tax benefits of the Ecological Gifts program apply only to the capital gain associated with the gift. The Ecological Gifts program is intended to offer incentives to preserve significant ecological areas. It should, therefore, apply to all people and companies owning qualified lands, regardless of how these lands are held.

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Better Indicators: Integrating Environmental Values into Policy

RECOMMENDATION SUMMARY:

Further implement the recommendations of the National Round Table on the Environment and the Economy (NRTEE)⁸³ on indicators of natural capital, in order to more effectively integrate environmental values into federal policy. The next steps are to:

- 1. Expand the Canadian System of National Accounts to include more detailed information on natural capital, and**
- 2. Report annually on forest cover and the extent of wetlands to complete the NRTEE's five recommended, national-level indicators of natural capital.^{84,85}**

Benefits for Canadians

- Help safeguard our natural capital, which is central to our economy, our health, and our lives, and on which the well-being of future generations depends,
- Provide the necessary information for parliamentarians, government officials and citizens to make and support policy decisions that preserve and grow our natural capital simultaneously with our financial capital,
- Advance Canada towards an economy where economic success advances environmental and social health.

Efforts to preserve and grow Canada's environmental, social and produced capital, and financial savings, will be much more effective if pursued together, in a mutually supportive manner. Otherwise, if economic decisions are made in isolation, we risk hindering the achievement of Canada's broader policy objectives, and requiring the allocation of significant public funds to remediate environmental and social damage. Conversely, the best economic, environmental, and social policy decisions create benefits in all three spheres, maximizing the use of public funds.

Background and Rationale

The Vision

To achieve true sustainability, it is fundamentally important to integrate environmental considerations into all related policy.

Canadians have learned from experience, particularly the East Coast cod fishery and the Walkerton water crisis, that the costs of considering short-term economic concerns in isolation from environmental and social concerns — and then waiting until a crisis happens to act — can be very high.

⁸³ National Roundtable on the Environment and the Economy (2003): *Environment and Sustainable Development Indicators for Canada*. <http://www.nrtee-trnee.ca/eng/publications/sustainable-development-indicators/index-sustainable-development-indicators-eng.htm>

⁸⁴ Ibid. Three of the recommended natural capital indicators have already been implemented by the federal government: air quality, freshwater quality, and greenhouse gas emissions. The most recent report, *Canadian Environmental Sustainability Indicators 2006*, published by Environment Canada, Statistics Canada, and Health Canada, is available at <http://www.statcan.ca/bsolc/english/bsolc?catno=16-251-XWE>.

⁸⁵ The NRTEE also recommended a sixth indicator, of human capital (educational attainment).

The Path Forward

There are many steps required to fully and effectively integrate environmental considerations into federal policy, and practical experiences from which to draw upon in choosing the best path for Canada.

Canada can learn from diverse international approaches. For example, Mexico has integrated sustainable development principles explicitly into its national development planning structure, while the Philippines National Economic Development Authority chairs the Philippine Council for Sustainable Development. Switzerland and the United Kingdom have been leaders in using integrated environmental, economic and social frameworks for evaluating policy proposals.⁸⁶

The Government of Canada should build upon its progress to date in enacting measures to track the changing value of Canada's natural capital, along with the known factors influencing these changes. The state of our natural capital is, and will continue to be, an important determinant of our collective economic and social wellbeing, as are measures of our economic and social capital.

As a means of measuring progress in making market prices tell the environmental truth, the Government should commit to developing indicators to measure the integration of life-cycle costs and benefits into the prices of goods, services, and activities, both at the retail level and throughout the supply chain. These measures should similarly indicate the correlated cost advantages for goods, services, and activities with more positive life-cycle impacts than their competition; and the competitive advantages for businesses that are environmental leaders in improving the life-cycle impacts associated with their operations. The Government should, further, commit to continuous improvement in these measures, and set targets for doing so.

All of Canada's existing and proposed fiscal and economic policy should be assessed, in a transparent manner, for their environmental impacts, in order to ensure that these current and proposed policies will not act against society's environmental objectives. See *Preserving Minerals for the Future* for existing examples of some counterproductive tax concessions.

Furthermore, policy-making structures should be amended, or newly implemented, as in Mexico and the Philippines, to ensure that high-level environmental policy experts play a significant role in all fiscal and economic policy decision-making. This could be achieved by instituting an inter-departmental working group specifically dedicated to integrating environmental values into all relevant policy, composed of senior representatives from the Departments of Finance, Environment, Industry, Natural Resources, Agriculture and Agri-Food, Fisheries and Oceans, and Indian and Northern Affairs, as well as from the Prime Minister's Office, the Privy Council Office, and the Canada Revenue Agency.

Success in aligning Canada's economy with societal environmental objectives will also require leadership from the federal government to motivate and support provincial and municipal governments to take complementary actions. Specifically, the federal government should ensure that portions of transfer payments to provinces and of gas tax transfers to municipalities are made conditional on the achievement of specific environmental goals and on the implementation of measures to more fully incorporate natural capital values and pollution costs into market prices, i.e. via increased carbon pricing, resource royalties and road pricing.

2008 Budget Recommendation

The Green Budget Coalition believes the next step on this path should be to complete the implementation of the NRTEE's 2003 recommendations regarding indicators of natural capital,⁸⁷ building upon the existing federal efforts to track greenhouse gas emissions, air quality and freshwater quality.

The realization of the full potential benefits from such indicators will also depend on the federal government providing leadership, coordination and support to improve the quantity and quality of environmental information monitored and shared by all levels of government in Canada.

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⁸⁶ International Institute for Sustainable Development (2003): National Strategies for Sustainable Development. p. x-xii. This document provides useful examples, and analysis, of how 19 countries have implemented sustainable development strategies.

⁸⁷ NRTEE (2003): Environment and Sustainable Development Indicators for Canada. <http://www.nrtee-trnee.ca/eng/publications/sustainable-development-indicators/index-sustainable-development-indicators-eng.htm>.



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