

Presentation to the Standing Committee on Bill C-30

Reality Check: Climate Change and the Proposed Clean Air Act

February 6, 2007

David R. Boyd

Trudeau Scholar, Institute for Resources, Environment and Sustainability,
University of British Columbia

Adjunct Professor, School of Resource and Environmental Management,
Simon Fraser University

Senior Associate, POLIS Project on Ecological Governance,
University of Victoria

Summary of key points (Points with asterisks propose amendments to Bill C-30)

1. Acknowledge the embarrassing fact that Canada cannot realistically meet its initial Kyoto target of reducing emissions 6% below 1990 levels by 2012.
2. Recognize that the Government of Canada's proposed intensity-based targets are fraudulent because they allow total emissions to continue to increase.
- *3. Canada's real target, based on the best available scientific information, should be to reduce greenhouse gas emissions 80% by 2050. This target should be added to the *Canadian Environmental Protection Act, 1999 (CEPA, 1999)* by amending Bill C-30.
- *4. Most of the provisions in Bill C-30 unnecessarily duplicate existing provisions in *CEPA, 1999*, increase the risk of constitutional challenges, and should be deleted.
5. Learn lessons from past environmental policy successes and failures.
- *6. Authorize the imposition of environmental taxes under *CEPA, 1999* so that Canada can establish a revenue-neutral carbon tax.
7. Be cautious regarding the proposed cap-and trade system for large final emitters.
8. Ensure aggressive investment (both public and private) in low-carbon and zero-carbon energy technologies.
- *9. Amend Bill C-30 to require the implementation of market-based regulations setting minimum quotas for renewable or zero emission power generation, sales of low, ultra-low and zero emission vehicles, and sequestration of carbon by the fossil fuel industry.
- *10. Amend Bill C-30 to bring the *Motor Vehicle Fuel Consumption Standards Act* into force immediately (we've waited 25 years already!) and to require Canadian fuel efficiency standards to meet or exceed the strongest standards in the world by 2020
- *11. Amend Bill C-30's provisions addressing the *Energy Efficiency Act* by requiring regular review to ensure Canadian standards meet or exceed the best standards in any other OECD nation, and to eliminate the worst performers in each product class.
12. Strengthen the National Model Building Code to go beyond the current voluntary R-2000 energy efficiency guidelines, and subsidize provincial adoption of the national model code into binding building codes.
13. Make methane capture at municipal landfill sites a mandatory pre-condition of federal infrastructure funding.
14. Work with provincial/territorial governments to dramatically increase the level of protected forests, creating vast Biodiversity Adaptation and Carbon Sequestration Areas.

Introduction

Let me briefly introduce myself. I am an environmental lawyer, an adjunct professor at Simon Fraser University, and a Trudeau Scholar at the University of British Columbia. I am the author of the authoritative book on environmental law and policy in Canada, called *Unnatural Law: Rethinking Canadian Environmental Law and Policy*, and the study called *Canada vs The OECD: An Environmental Comparison* that first demonstrated how far behind other industrialized nations Canada has fallen in terms of environmental performance. I also spent a year working in the Privy Council Office as a special advisor on sustainability in 2005 and am the former head of the Sierra Legal Defence Fund (Canada's largest non-profit environmental law firm), so my perspective is not limited to the ivory tower.

I hope that all of you have read the Summary for Policy Makers published last week by the Intergovernmental Panel on Climate Change. It chronicles rising average global temperatures, increases in the frequency and severity of storms, melting glaciers, rising sea levels, more floods, more droughts, declining crop yields (especially in Africa), and the spread of vector borne diseases like malaria. It is a profoundly disturbing overview of the trajectory of humankind. I urge you all to take a close look at the maps on page 19 that shows projected temperature increases at the end of this century. The maps demonstrate that in less than 100 years Canada could be a place that we would scarcely recognize, particularly in the Arctic regions.¹

The basic facts about Canada's dismal performance in addressing the threat posed by global warming are well known:

- Canada's emissions in 1990: 599 million tonnes
- Canada's Kyoto commitment: To reduce to six per cent below that level by 2012, or by roughly 300 million tonnes from projected levels (assuming business as usual, emissions will continue to rise and increase the gap)
- Canada's greenhouse gas emissions as of 2004: 758 million tonnes
- Canada's greenhouse gas growth, 1990-2004: 27 per cent²

1. Recognize that Canada cannot realistically meet our initial Kyoto target of 6% below 1990 levels by 2012.

As noted above, Canada's GHG emissions were approximately 27% above 1990 levels in 2004 and our Kyoto target for the 2008-2012 period is 6% below 1990 levels. There are two basic ways of meeting our target—via domestic emission reductions and through purchasing international credits. To meet our Kyoto target through reductions in domestic emissions, Canada would need to reverse the trend that sees emissions growing by about 2% per year and instead reduce our emissions by about 7% per year for each of the next five years. To achieve the Kyoto target through domestic reductions would require a rate of emissions decline unmatched by any modern nation in the world. In the wake of the OPEC oil crisis in the 1970s Japan became the world's most energy efficient nation. They never came close to efficiency gains of 7% per year.³ The only exceptions are

nations that suffered economic collapse, such as Russia and the Ukraine. I do not recommend that Canada adopt the “economic cataclysm” approach.

The second route to fulfilling our 6% commitment under the first Kyoto period is to purchase large volumes of international credits. The concept of purchasing international credits is legitimate and should be endorsed where Canadian investments contribute to the projects such as the development of renewable or zero-emission energy in developing nations. Unfortunately, those kinds of credits are simply not available in anywhere near the volume Canada would require in the short to mid-term (up to and including the first Kyoto compliance period from 2008-2012). The only credits available at this time in large volumes are “hot air” from countries like Russia and the Ukraine whose economies collapsed in the 1990s. Hot air credits are a bad investment for Canada, sending billions of dollars abroad for zero environmental benefit.

Therefore Canadians, environmentalists, and our elected representatives need to come to terms with the fact that we will not meet our initial Kyoto target. We have denied, debated, and dithered for too long. The Liberal governments from 1993 to 2006 bear some of the responsibility as they dragged their heels implementing Kyoto and relied primarily on ineffective voluntary programs and subsidies. The official opposition parties during that period also bear some responsibility, as they consistently opposed federal efforts to address global warming. The Canadian business community bears some of the responsibility because they denied the science of climate change, fought against the ratification of Kyoto, and exaggerated the costs of reducing Canadian emissions.⁴

At the same time it is vital to understand that missing our first target that doesn't mean turning our back on the *Kyoto Protocol*. Canada's continued commitment to Kyoto is essential to rebuilding our tarnished international reputation. The *Kyoto Protocol* has provisions for nations that miss their initial targets. If a Party fails to meet its emissions target, it must make up the difference in the second commitment period (timing and targets not yet specified), plus a penalty of 30% of the gap.⁵

The *Kyoto Protocol* needs to be broadened, deepened and strengthened, and Canada needs to play a constructive role those international negotiations. It needs to be more inclusive (engaging major developing nations such as China, India, Brazil, Indonesia, and Mexico). Major nations like the U.S. and Australia need to be brought on board. It needs longer time horizons and science based global targets for emission reduction. There is much more to be said about improving the *Kyoto Protocol* but that is a subject for another day.

2. Intensity-based targets are fraudulent because they allow total emissions to continue increasing.

The intensity-based greenhouse gas emission targets proposed by the current Government of Canada are a fraudulent approach to the challenge of global warming because they allow total GHG emissions to continue to grow. It is total emissions that are the only

relevant yardstick of progress in the fight against global warming. If total emissions continue to rise, the planetary crisis will be exacerbated. The problem with an intensity-based approach is demonstrated by applying this approach to Canada's record in pumping out greenhouse gas emissions since 1990. Gross domestic product (GDP) went up 47% between 1990 and 2004, while Canada's GHG emissions rose 27% during the same period.

The fact that our economy has grown much faster than our GHG emissions means that from 1990 to 2004, Canada's emissions intensity improved significantly—by about 43%. Yet the reality is that total Canadian GHG emissions are up 27%, which everyone agrees is both an environmental disaster and an international embarrassment. If we were measuring performance using an intensity-based approach, Canada's record would look great. Using an intensity-based yardstick, the Liberal record looks great. These obviously false impressions demonstrate the absurdity of applying an intensity-based approach to GHG emissions.

3. The real target is an absolute reduction in emissions of 80% by 2050

Global warming is a marathon, not a sprint. For Canada, trying to meet our 6% target at this point would be like somebody who talks about taking up the sport of running for years without ever doing any training then tries to sprint a mile in under four minutes. The inevitable results are failure and injury—failure to meet the goal and injury to both the runner and the nation. The only intelligent and realistic way to prepare for a marathon is to start training and build up your mileage gradually. The longer you wait, the harder it will become.

The real goal of efforts to address global warming is absolute emissions reductions of at least 80% by mid-century. This goal should be explicitly placed in the *Canadian Environmental Protection Act, 1999* through an amendment to *Bill C-30*. The majority of my brief will address the question of how *Bill C-30* can assist Canada in meeting that goal. Although 2050 may be seemingly far away in time, the only way we will achieve the goal of reducing emissions by 80% is if we start now. We urgently need to lay the foundation with good policies, policies that meet the three basic tests of effectiveness, efficiency, and equity:

Does the policy achieve the desired environmental objective?

Does it do so at the lowest possible cost to society?

Are the costs and benefits equitably shared?

What policies are the most effective, efficient, and equitable?

4. Bill C-30: Duplication, Missing Pieces, and Unnecessary Risk

Environmental laws are like the toolbox and regulations, programs, fiscal instruments, etc, are like that tools that actually do the work. *Bill C-30* offers precious little in terms of new tools for addressing climate change. I have read the proposed legislation a number of

times and am left scratching my head about what it adds to the *Canadian Environmental Protection Act, 1999*. In addition, I am concerned that for minimal benefits, Bill C-30 creates substantial risks.

As you know, greenhouse gases are already on the List of Toxic Substances, also known as Schedule 1 of *CEPA, 1999*. This gives the Government of Canada broad powers to regulate GHG emissions under Part 5 of the Act. The proposed Clean Air provisions, creating a new Part 5.1 of *CEPA, 1999*, dealing with “air pollutants” and “greenhouse gases” by and large simply duplicate the existing provisions of Part 5. This not only wastes reams of paper, but in my opinion could pose a threat to the constitutional underpinnings of *CEPA*. The constitutionality of *CEPA* was challenged by Hydro-Quebec in the 1990s when they were charged with dumping PCBs into a river. The Supreme Court of Canada, in a 5-4 decision, ruled that the toxic substances provisions of *CEPA* were constitutionally valid based on the criminal law power. Bill C-30’s creation of Part 5.1 and the removal of air pollutants and greenhouse gas emissions raise the potential spectre of a new constitutional challenge.⁶

Most of the proposed changes to *CEPA, 1999*, therefore, are not only unnecessary but undesirable. Most of the actions that the Government of Canada seeks to undertake are already authorized by the existing provisions of *CEPA, 1999*, including bio-monitoring, measures to improve indoor air quality, public reporting on air pollution, and the establishment of national air quality objectives. Indeed, Health Canada and Environment Canada are already carrying out these very activities.⁷

So I ask the Committee, as you conduct your review of Bill C-30, to ask yourselves “What does this add to the toolbox already provided by *CEPA, 1999*?” If the answer is nothing, then strike out the offending clauses. In doing so, you will dramatically shorten Bill C-30, reduce duplication and confusion, and diminish the risk to *CEPA, 1999*’s constitutional underpinnings.

5. Canada should learn from the lessons of environmental policy in the past.

Canada has a rich history of both successes (e.g. acid rain, ozone depletion) and failures (e.g. climate change, smog, fisheries and oceans management) in the field of environmental policy. Common elements of issues where Canada has been successful include setting ambitious goals, actively engaging in international negotiations, seeking federal-provincial cooperation, and most importantly, establishing strong regulations. On the side of the ledger where we have failed to make progress on environmental issues, common threads include excessive reliance on voluntary programs, a reluctance to use economic disincentives and regulation, and federal-provincial squabbling.⁸

There is abundant evidence that the policies employed by the Canadian government in the past in an effort to reduce GHG emissions, relying largely on voluntary measures and subsidies, fail the effectiveness and efficiency tests. A significant amount of money was spent but did not produce significant reductions in emissions. Therefore we must use stronger approaches, including economic disincentives and regulations.⁹

6. Authorize the imposition of environmental taxes under CEPA, 1999 so that Canada can establish a revenue-neutral carbon tax.

There is one specific amendment that does need to be made, to add an important tool that is currently missing from *CEPA, 1999*'s toolkit. An amendment is needed to s. 322 of *CEPA, 1999* (the list of economic instruments authorized under Part 11) to authorize the federal government to use environmental taxes. Environmental taxes are one of the most powerful policies in government's arsenal when it comes to accelerating the transition to a sustainable future. In the context of global warming, this particular amendment is needed to enable the creation of a carbon tax.

Section 322 of *CEPA, 1999* currently reads as follows:

322. The Minister may establish guidelines, programs and other measures for the development and use of economic instruments and market-based approaches to further the purposes of this Act, respecting systems relating to

- (a) deposits and refunds; and
- (b) tradeable units.

Amending this section to authorize the use of taxes, and specifically, a carbon tax, would be simple and straightforward:

322. The Minister may establish guidelines, programs and other measures for the development and use of economic instruments and market-based approaches to further the purposes of this Act, respecting systems relating to

- (a) deposits and refunds;
- (b) tradeable units;
- (c) environmental taxes.

As well, sections 325 and 326 of *CEPA, 1999* provide the Governor in Council with the authority to make regulations regarding deposit and refund systems and tradeable unit systems, respectively. Therefore a new section 326.1 will be required to authorize the Governor in Council to make regulations for environmental taxes.

Why a carbon tax?

The majority of experts and economists agree that the most effective and efficient means of addressing the market's failure to internalize greenhouse gas emissions is a carbon tax. A carbon tax is a tax on the sale of fossil fuels – principally coal, petroleum products, and natural gas – based on their carbon content. Fossil fuels are used for electricity generation, transportation, residential and commercial space heating, industrial processes, and other activities. Measurements of carbon content for different types of fossil fuels are readily available. A tax that starts at a modest rate and increases gradually and predictably over time can establish incentives throughout the entire Canadian economy to reduce carbon dioxide emissions with minimal disruption to the economy. A carbon tax offers an opportunity to shift taxation away from activities that are good for society (e.g.,

labor and investment) onto activities that pose huge risks to society (i.e., carbon dioxide emissions).¹⁰

Supporters of using carbon taxes to address global warming are plentiful. In 1997, more than 2,500 economists (including eight Nobel Laureates) signed a statement urging the adoption of mandatory, broad-based market instruments, specifically mentioning carbon taxes.¹¹ Supporters of carbon taxes span the political spectrum, as the following list suggests:

- Al Gore, former Vice-president of the United States
- Alan Greenspan, former Chairman of the U.S. Federal Reserve
- Joseph Stiglitz, Nobel Prize winner, former Chief Economist at the World Bank
- Nicholas Stern, author of the most comprehensive look at the economics of climate change, written on behalf of the UK government
- James Rogers, Chairman and CEO, Duke Energy¹²
- Mark Jaccard, Simon Fraser University, author of *The Cost of Climate Policy and Sustainable Fossil Fuels*¹³
- James Hansen, Director, NASA Goddard Institute for Space Studies
- Gregory Mankiw, Chair of the President's Council on Economic Advisers, 2003-2005, and Harvard professor¹⁴
- William Moomaw, Director of the Center for International Environment and Resource Policy, Tufts University
- Kenneth Rogoff, Professor of Economics and Public Policy at Harvard University, former chief economist at the IMF.
- Paul Krugman, economist, professor at Princeton, N.Y. Times columnist
- Thomas Friedman, author of *The Lexus and the Olive Tree*
- Richard Posner, economist, judge
- William Nordhaus, economist, Yale University¹⁵
- Robert N. Stavins is the Albert Pratt Professor of Business and Government at the John F. Kennedy School of Government at Harvard University.
- Edward Snyder, Dean of the University of Chicago's Graduate School of Business
- Theodore Roosevelt IV, Lehman Bros. executive
- Jeffrey Sachs, economist, professor at Columbia, advisor to UN, IMF, World Bank
- Lester Brown, Earth Policy Institute.
- Jacques Chirac, President of France¹⁶
- The Economist, *The Greening of America*. Jan 25, 2007

There are some even more surprising proponents of a carbon tax:

- the American Enterprise Institute, a right wing think tank¹⁷
- the U.S. Congressional Budget Office
- Ross McKittrick, University of Guelph, climate change skeptic¹⁸

And last but not least, the Canadian public:

A recent survey from Ipsos-Reid shows that Canadians are favorable to a carbon tax perhaps the most effective mechanism for fighting global warming. Remarkably, Albertans are more favorable than most Canadians.¹⁹

There are a number of compelling reasons why carbon taxes are an attractive policy instrument:²⁰

1. They are comprehensive--can cover the entire economy with a single policy instrument
2. Efficiency—widely acknowledged to provide lowest total cost for reducing GHG emissions
3. Transparency—the amount of the tax is easily observed by the public
4. Administrative simplicity
5. Less likely to cause energy price volatility than cap and trade
6. Less susceptible to industry manipulation than cap and trade
7. Easy to return revenue to the public (revenue neutral)
8. Can be introduced at modest level and increased over time
9. Track record of success in Europe

According to Dr. Mark Jaccard, one of Canada's leading energy and climate change economists,

If Canada is serious about its GHG objective, it must consider alternative policy approaches. The policies that seem to be more successful are ones that legally or financially impede GHG emissions. One such policy would be a gradually increasing tax on GHG emissions. Decades of experiments with environmental taxes — including CO₂ taxes in several jurisdictions — have shown that a properly designed tax can achieve its goals at reasonable cost. Governments could reduce other taxes, so that there was no net tax increase. Industries whose exports were threatened could be given some tax exemption and assistance with emissions reduction. Lowering taxes that inhibit new investments could make industry better able to adapt to the new circumstances. Tax payments could be returned to provincial governments to prevent the policy from causing transfers between regions. The tax could be set at a modest level at first but could be scheduled to rise gradually, so that it affected new investment decisions but not the profitability of old equipment.²¹

Concerns raised about carbon taxes

Equity concerns

Since lower income households spend a larger proportion of their income on energy than higher-income households do, a carbon tax is expected to have a regressive impact on the distribution of income. Thus, if public support for the imposition of carbon taxes is to be secured, their possible regressive distributional impacts warrant serious political attention in the design of the tax. There are different options to mitigate the potential regressive impacts of a carbon tax. Part of the revenues from the tax will need to be used to compensate low-income households harmed by the tax, e.g., by lump-sum redistribution, through tax reductions, or increases in social security benefits and pensions.

Competitiveness concerns

It will be important to mitigate the potential competitiveness effects in designing carbon taxes. One commonly used way is to grant energy-intensive industries a lower tax rate than households, or even to exempt these industries from coverage of the taxes where a

cap and trade system is also in place.

It is important to note that the four top nations in the World Economic Forum's latest rankings of economic competitiveness—Switzerland, Finland, Sweden and Denmark—have carbon taxes. Canada, on the other hand, ranked 16th.²² The point here is not to suggest that carbon taxes increase competitiveness (although that may be the case) but rather to suggest that the imposition of carbon taxes will not necessarily harm competitiveness.

The Use of Carbon Taxes in Europe

Carbon taxes are already being used in many European nations, including Norway, Sweden, Denmark, Finland, France, Italy, the Netherlands, and Switzerland. There is evidence from these EU nations (Sweden, Denmark, the Netherlands) that carbon taxes are contributing to decreased GHG emissions.²³ The Norwegian case is particularly instructive for Canada, as Norway ranks third in the world in oil exports and is also a major natural gas producer.

Norway

Like Canada, Norway has seen strong economic growth. However, Norwegian policies, including a carbon tax, have resulted in much more modest GHG growth. From 1990-1999, Norway's GDP went up 23% but Norwegian GHG emissions went up only 4%.

The imposition of a carbon tax in the early 1990s in Norway triggered industry investment in the new technology of carbon capture and storage, also known as carbon sequestration. Norwegian natural gas producers are capturing CO₂ from wells in the North Sea's Sleipner field and re-injecting it into a deep saline aquifers at a rate of a million tons annually, simultaneously saving \$160,000 a day in Norwegian carbon taxes.²⁴

The Norwegian government believes that the CO₂ tax has been effective. It cites a study by Statistics Norway that during the period 1991-1993, emissions from households, transport, and mainland stationary sources may have been 3-4% lower than they would have been without application of the CO₂ tax. The price of heating oil and petrol changed by about 15% and 10%, respectively, as a result of the taxes.²⁵

Sweden

Sweden also draws positive conclusions from its experience with green taxes. The Green Tax Commission, referring to data of the Swedish EPA, concluded that 60% of the 8-million-metric-ton CO₂ emissions reduction that was achieved between 1987 and 1994 can be attributed to the nation's CO₂ tax. This amounts to 11% of total Swedish greenhouse gas emissions.²⁶

Netherlands

The Dutch Environmental Planning Agency (Reijksinstituut voor Volksgezondheit en Milieu or RIVM) made model calculations of the environmental effects of the general fuel tax. RIVM estimated that CO₂ emissions in The Netherlands would have been

1.7 million metric tons higher in 1994 without the fuel tax.²⁷

7. Be cautious regarding the proposed cap-and trade system for large final emitters.

Cap and trade systems, like carbon taxes, are regarded as efficient and effective instruments for addressing environmental externalities. *CEPA, 1999* already authorizes the creation of tradeable permit systems (see Part 11, ss. 322 to 326). Key elements of an effective and efficient cap and trade system include a specific cap or limit on total emissions, auctioning or partial auctioning of initial permits or allowances, and rigorous monitoring and enforcement.

Good news:

Cap and trade systems can be effective, as the US experience under the *Clean Air Act* of 1990 demonstrate. The U.S. *Clean Air Act* established a cap and trade system for the pollutants causing acid rain. Seventeen years later, there is widespread agreement that the environmental objectives were achieved, costs were far lower than projected, and benefits were far higher than costs. The primary advantage of a cap and trade system vis-à-vis carbon taxes is that the process of setting a hard cap provides greater certainty that the desired environmental outcome will be achieved.

Bad news:

The European cap and trade system for GHG emissions is a mess. Governments allocated more permits than there are proving to be emissions, so permits are fast becoming worthless. Industry inflated their projected emission levels, received surplus permits, and in some cases, managed to make windfall profits. This is the same path Canada was on with the cap and trade program being developed as part of Project Green by the Liberal government of Prime Minister Paul Martin, as corporations and industries were inflating their business-as-usual GHG projections for 2012.

I urge the Committee and the Government of Canada to be wary of relying on information (about projected emissions and timelines for availability of new technology) provided by corporations and industry associations. One of the world's leading economists in the field of climate policy, Professor William Nordhaus of Yale University, has written that "cheating will probably be pandemic in an emissions-trading system that involves large sums of money. There are very poor intrinsic incentives for honesty in a cap-and-trade system."²⁸

The problem is that there are information asymmetries, meaning industry has knowledge regarding the availability of technology and the costs of implementing the technology that government does not have the same level of knowledge about.²⁹ In formulating a cap and trade system, government will have to work closely with industry and rely to some extent on industry-generated data. Therefore it is absolutely imperative to bear in mind that industry will play games, withhold information, and even bend the truth in order to fulfill their goal of maximizing shareholder wealth.³⁰

8. Ensure aggressive investment (both public and private) in low-carbon and zero-carbon energy technologies (for both energy production and consumption).

Canada needs policies that will result in increased public and private research and development, demonstration projects, niche market creation, and support for networks within the new industries. We will also require standard setting for new technological products and processes and innovative infrastructure policies (e.g., when it comes to hydrogen distribution). One obvious example of the kind of policy required is technology neutral tax credits for research and development in low-carbon and zero-carbon energy technologies.

9. Amend Bill C-30 to require the implementation of market-based regulations setting minimum quotas for renewable or zero emission power generation, sales of low, ultra-low and zero emission vehicles, and sequestration of carbon by the fossil fuel industry.

I understand that you'll be hearing testimony from Dr. Mark Jaccard of Simon Fraser University. I would endorse Professor Jaccard's call for market-based regulations establishing renewable portfolio standards, vehicle emission standards—setting quotas for sales of low and zero emission vehicles, and a carbon sequestration standard requiring producers of oil and gas to capture and store carbon. These regulations will assist in accelerating the establishment and growth of unfamiliar technologies and niche markets, thus overcoming barriers to adoption and dissemination.³¹

***10. Amend Bill C-30 to bring the *Motor Vehicle Fuel Consumption Standards Act* into force immediately (we've waited 25 years already!) and to require Canadian fuel efficiency standards to meet or exceed the strongest standards in the world by 2020**

On the section of Bill C-30 dealing with the *Motor Vehicle Fuel Consumption Standards Act*, I will say two things.

1. The law should come into force immediately. It has been 25 years (since 1982).
2. You need to know that even if motor vehicle manufacturers comply with the current voluntary agreement, then in 2010 Canadian fuel efficiency will still lag behind Europe, Japan, Australia, California, and China. That's right, China. New Canadian fuel efficiency standards must establish mandatory targets that, over a reasonable period of time, completely close the gap between Canada and other leading nations.³²

***11. Amend Bill C-30's provisions addressing the *Energy Efficiency Act* by requiring regular review to ensure Canadian standards meet or exceed the best standards in any other OECD nation, and to eliminate the worst performers in each product class.**

On the sections of Bill C-30 dealing with the *Energy Efficiency Act*, there is much room for improvement, including

1. Ensuring Canadian standards meet or exceed the highest levels in the OECD (precedent set for this kind of provision in s. 17(2) of the Pest Control Products Act);
2. Mandatory review of standards (e.g. every five years); and
3. Mandatory elimination of worst 10% in each product class (precedent set with the prohibition of low efficiency furnaces).

12. Strengthen the National Model Building Code to go beyond the current voluntary R-2000 and C-2000 energy efficiency guidelines, and subsidize provincial adoption of the national model code into binding building codes.

13. Make methane capture at municipal landfill sites a mandatory pre-condition of federal infrastructure funding.

14. Work with provincial/territorial governments to dramatically increase the level of protected forests, creating vast Biodiversity Adaptation and Carbon Sequestration Areas.

15. End all federal subsidies to fossil fuel industries and redirect these subsidies toward new low and zero carbon energy sources

CONCLUSION

Thank you for your time and attention. This special Parliamentary committee has a unique opportunity to generate an improved Bill that will provide the kind of effective, efficient, and equitable measures that Canada so desperately needs in order to address global warming, the most daunting environmental challenge of our time.

At the Committee's request, I have focused exclusively on climate change. Air pollution is also an important issue for Canadians and for Bill C-30 so I am enclosing a regulatory analysis that I recently conducted, called *The Air We Breathe: An International Comparison of Air Quality Standards and Objectives*. The analysis compared air quality policies at the national level in Canada, the U.S., Australia, and Europe, as well as World Health Organization recommendations. Canada is alone among the nations surveyed in relying on voluntary, non-binding guidelines and objectives for air quality. Worse yet, our guidelines are generally weaker than the legally binding standards in other nations. I urge you to read the report and act on its recommendations.

Thank you. Merci beaucoup.

Endnotes

¹ Intergovernmental Panel on Climate Change, Working Group I. 2007. Climate Change 2007: The Physical Science Basis, Summary for Policymakers. UNEP/WMO.

² Government of Canada. 2006. Canadian Environmental Sustainability Indicators. www.environmentandresources.gc.ca/default.asp?lang=En&n=A85B7F27-1

³ Kensuke Kanekiyo. 2006. "Lowering Energy Intensity toward Sustainable Development" Institute of Electrical Engineers of Japan.

⁴ See www.canadiansolution.com a website established by the Canadian Chamber of Commerce and the Canadian Council of Chief Executives as part of their fight against Kyoto and meaningful regulation. For more details, see D.R. Boyd 2003. Unnatural Law: Rethinking Canadian Environmental Law and Policy. Vancouver: University of British Columbia Press.

⁵ http://unfccc.int/kyoto_protocol/background/items/3145.php

⁶ *R. v. Hydro-Quebec*, [1997] 3 S.C.R. 213

⁷ See the websites of Health Canada and Environment Canada at www.hc-sc.gc.ca and www.ec.gc.ca

⁸ For more details, see D.R. Boyd 2003. Unnatural Law: Rethinking Canadian Environmental Law and Policy. Vancouver: University of British Columbia Press.

⁹ M. Jaccard. 2006. Burning Our Money to Heat the Planet. Toronto: C.D. Howe Institute.

¹⁰ U.S. Congressional Budget Office. 2005. "Limiting Carbon Dioxide Emissions: Prices Versus Caps." U.S. Congressional Budget Office. 2006. "Evaluating the Role of Prices and R&D in Reducing Carbon Dioxide Emissions." www.cbo.gov

¹¹ Economists' Statement on Climate Change. 1997. San Francisco: Redefining Progress.

¹² Duke Energy. 2005. Executive Summary: Carbon Tax as an Element of Tax Reform Agenda. April 29, 2005. Submission to the President's Advisory Panel on Federal Tax Reform.

¹³ "By providing a consistent signal throughout the economy, however, carbon taxes are the most efficient and effective means of achieving our environmental objective."

Mark Jaccard, SFU (Alternatives Journal, 2006)

¹⁴ <http://gregmankiw.blogspot.com/2006/09/rogoff-joins-pigou-club.html>

¹⁵ Nordhaus, William D. 2006. "After Kyoto: Alternative Mechanisms to Control Global Warming," American Economic Review, vol. 96, May 2006, 31-34.

¹⁶ "A carbon tax is inevitable," Mr. Chirac said. "If it is European, and I believe it will be European, then it will all the same have a certain influence because it means that all the countries that do not accept the minimum obligations will be obliged to pay." French officials have recently floated the idea of imposing carbon-equivalent tariffs on imports from countries that do not tax or otherwise regulate carbon emissions. These tariffs would help level the playing field for early adopters of carbon controls.

NY Times, Feb 1, 2007

-
- ¹⁷ Kevin A. Hassett and Gilbert E. Metcalf. 2006. "What would a rational energy tax policy look like?" www.aei.org/publications/pubID.25199,filter.all/pub_detail.asp
- ¹⁸ McKittrick, Ross. 1997. "Double Dividend Environmental taxation and Canadian Carbon Emissions Control," *Canadian Public Policy / Analyse de Politiques*, Vol. 23(4): 417-434.
- ¹⁹ Jay Bryan. 2006. "On climate change, start small, but start now," Tuesday, November 7, 2006 CanWest News Service.
- ²⁰ Pizer, W.A., 1997. Prices vs. quantities revisited: the case of climate change. Discussion Paper No. 98-02, Resources for the Future, Washington, DC. Pizer, W.A., 1999. Choosing price or quantity controls for greenhouse gases. Climate Issues Brief No. 17, Resources for the Future, Washington, DC. Goulder, L.H., 1995. Environmental taxation and the double dividend: a reader's guide. *International Tax and Public Finance* 2 (2), 157–183. Zhong Xiang Zhang and Andrea Baranzini. 2004. "What do we know about carbon taxes? An inquiry into their impacts on competitiveness and distribution of income," *Energy Policy* 32: 507–518. U.S. Congressional Budget Office. 2005. "Limiting Carbon Dioxide Emissions: Prices Versus Caps." U.S. Congressional Budget Office. 2006. "Evaluating the Role of Prices and R&D in Reducing Carbon Dioxide Emissions." See also the website www.carbontax.org
- ²¹ M. Jaccard, N. Rivers, C. Bataille, et al. 2006. *Burning Our Money to Warm the Planet: Canada's Ineffective Efforts to Reduce Greenhouse Gas Emissions*. Toronto: C.D. Howe Institute.
- ²² World Economic Forum. 2006. *The Global Economic Competitiveness Report 2006-2007*. <http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm>
- ²³ Andrea Baranzini, José Goldemberg, Stefan Speck. 2000. "A future for carbon taxes," *Ecological Economics* 32: 395–412.
- ²⁴ F.D. Roylance. 2007. "Scientists dig deep for global warming solutions," *Baltimore Sun*, Feb. 4, 2007.
- ²⁵ Larsen, B. M.; Nesbakken, R. 1997. Norwegian Emissions of CO₂ 1987-1994. A study of some effects of the CO₂ tax. *Environ. Resource Econ.* 9(3): 275-290.
- ²⁶ Jonsson, O.; Löfgren, K.; Nyström, S.; Vilborg, I. *Environmental Taxes in Sweden*; Report No. 4745; Swedish Environmental Protection Agency: Stockholm, Sweden, March 1997.
- ²⁷ van Gerwen, O. J.; Honig, E.; van Wee, G. P. 1996. *Greening the tax system in The Netherlands: Indicative calculations of the environmental effects of energy and fuel taxes (in Dutch)*; National Institute of Public Health and the Environment (RIVM); Rep. 408130 001; The Netherlands.
- ²⁸ William Nordhaus, Yale University. 2005. *Life After Kyoto: Alternative Approaches to Global Warming Policies*, p. 19.
- ²⁹ Edward A. Parson and J.C. Stephens. 2007 (forthcoming). *Feasible Improvement: Technological Uncertainty and Strategic Behavior in Environmental Regulation*. Massachusetts: MIT Press.
- ³⁰ Edward A. Parson and J.C. Stephens. 2007 (forthcoming). *Feasible Improvement: Technological Uncertainty and Strategic Behavior in Environmental*

Regulation. Massachusetts: MIT Press. For an excellent assessment of this problem in the context of leaded gasoline, see G. Markowitz and D. Posner. 2003. *Deceit and Denial: The Deadly Politics of Industrial Pollution*. Berkeley: University of California Press. The same pattern existed in the early decades of regulating the auto industry. See James E. Krier and Edmund Ursin. 1977. *Pollution and policy: a case essay on California and Federal experience with motor vehicle air pollution, 1940-1975*. Berkeley: University of California Press.

³¹ M. Jaccard, J. Nyboer, and B. Sadownik. 2002. *The Cost of Climate Policy*. Vancouver: UBC Press. M. Jaccard. 2006. *Sustainable Fossil Fuels: The Unusual Suspect in the Quest for Clean and Enduring Energy*. Cambridge: Cambridge University Press.

³² F. An and A. Sauer. 2005. *Comparison of Passenger Vehicle Fuel Economy and Greenhouse Gas Emission Standards Around the World*. Arlington, VA: Pew Center on Global Climate Change.