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Regulating Greenhouse Gases in Canada: Constitutional and Policy Dimensions

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Regulating Greenhouse Gases in Canada: Constitutional and Policy Dimensions

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Abstract

Canada's greenhouse gas emissions have risen dramatically since the 1997 negotiation of the Kyoto Protocol to reduce greenhouse gas emissions, and that rise has continued through Canada's 2002 ratification of the Protocol. Constitutional barriers to regulation have sometimes been cited as the reason for caution in regulating greenhouse gases, as well as economic dislocation. This article critically evaluates the constitutional arguments, and examines the policy considerations of various regulatory instruments that might be used to reduce greenhouse gases. We conclude that the Canadian Constitution does not present any significant barriers to federal or provincial regulation, and that policy considerations strongly favour the use of two instruments: a federal carbon tax and use of the Canadian Environmental Assessment Act to review federal projects that may increase greenhouse gases.

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I. Introduction

In a 2007 speech to the Canadian Bar Association, former Alberta Premier Peter Lougheed warned of an impending constitutional crisis over the regulation of greenhouse gases. A "major constitutional battle" was brewing between the federal government, which faces increasing international and domestic pressure to regulate the emissions of greenhouse gases, and the government of Alberta, where high greenhouse emissions are produced by oil and gas development, a jealously-guarded provincial perogative.[1] "Public pressure," in Lougheed's view, "is likely to force the passage of strong [federal] environmental legislation," while the economic forces driving oil sands development will likely lead to resistance from Alberta in the form of conflicting legislation.[2]

Is there really a constitutional storm on the horizon? Lougheed's most memorable political legacy is his constitutional quarrel with Prime Minister Pierre Trudeau over the National Energy Program, during which Lougheed challenged the federal government's authority to tax oil and gas production. This experience may be colouring Lougheed's view. Although there is tension between federal and provincial authority over the regulation of Canadian greenhouse gases, this tension need not be, and should not be, an obstacle to sensible greenhouse gas regulation.

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[1] Const. § 92A(1).

[2] *Editorial, How to head off an oil-sands clash,* GLOBE AND MAIL, August 16, 2007; Kirk Makin, *Clash over oil sands inevitable: Lougheed*, THE GLOBE AND MAIL August 14, 2007. available online at http://www.theglobeandmail.com/servlet/story/RTGAM.20070814.wlougheed0814/BNStory/robNews/; Peter Lougheed, Speech to Canadian Bar Association, Calgary, August 14, 2007. The videorecording of the speech is available online at http://www.cpac.ca/forms/index.asp?dsp=template&act=view3&pagetype=vod&lang=e&clipID=96 (last visited March 21, 2008).

II. Regulating Greenhouse Gas Emissions in Canada

Canada's greenhouse gas emissions have risen sharply since 1990, the baseline year from which the commitments under the Kyoto Protocol[3] are derived, from 596 Mt in CO_2-equivalents[4] to 747 Mt in 2005,[5] the steepest rise of the G8 countries over this time period.[6] It is now impractical for Canada to comply with its Kyoto commitment to lower its emissions to 563 Mt.[7] Increases have been across almost all sectors – emissions from electricity generation, transportation,

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[3] KYOTO PROTOCOL TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, December 10, 1997, Entered into force, 16 February 2005. 37 I.L.M. 22 (1998); *reprinted* in DAVID HUNTER, JAMES SALZMAN & DURWOOD ZAELKE, INTERNATIONAL ENVIRONMENTAL LAW AND POLICY, TREATY SUPPLEMENT 120-134 (3d ed., 2007).

[4] "Carbon dioxide-equivalents" is an index of total emissions from all six greenhouse gases regulated under the Kyoto Protocol, which include carbon dioxide, methane, nitrous oxides, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The index is weighted by the heat-trapping effect of emissions of the different greenhouse gases, in comparison with the effect of a tonne of carbon dioxide. For example, since methane has twenty-one times the heat-trapping power of carbon dioxide, emissions of methane are multiplied by twenty-one for purposes of calculating the index. Also, in terms of emissions trading under Kyoto, emissions of methane will be deemed to be twenty-one times as important as the equivalent emissions of carbon dioxide. See*, e.g.,* U.S. Environmental Protection Agency, Emission Fact: Metrics for Expressing Greenhouse Gas Emissions: Carbon Equivalents and Carbon Dioxide Equivalents, online at http://www.epa.gov/oms/climate/420f05002.htm.

[5] Environment Canada, Canada's 2005 Greenhouse Gas Inventory, A Summary of Trends, fig. 1e, online at http://www.ec.gc.ca/pdb/ghg/inventory_report/2005/2005summary_e.cfm.

[6] Canada's increase in total aggregate greenhouse gas emissions from 1990 to 2005 was the highest among G8 nations. Reuters, *Canada Led G8 in Greenhouse Gas Emissions Growth,* April 23, 2008, online at http://www.planetark.com/dailynewsstory.cfm/newsid/48101/story.htm. Canada ranked sixth among Annex I countries at 25.3%, behind Turkey, Spain, Portugal, Greece, Ireland and Australia. United Nations Framework Convention on Climate Change (UNFCCC), National greenhouse gas inventory data for the period 1990-2005 at page 9, http://unfccc.int/resource/docs/2007/sbi/eng/30.pdf.

[7] Kathryn Harrison, "The Road not Taken: Climate Change Policy in Canada and the United States" (2007) 7.4 Global Environmental Politics 7.4 92 at 113. Canada's Kyoto Protocol commitment is to reduce its greenhouse gas emissions to 94% of its 1990 level of 596 Mt. Kyoto Protocol, *supra* note 3 at Annex B. The Kyoto Protocol parties' emissions for the years 1990 through 2006, as submitted to the United Nations Framework Convention on Climate Change Secretariat, are available at http://unfccc.int/di/DetailedByParty/Event.do;jsessionid=44137D9DF0E7A870A219F1F4602305BA.diprod01?event=go.

petroleum production, mining, agriculture, waste, and fugitive releases from natural gas production all increased between 1990 and 2005.[8] Only greenhouse gas emissions from industrial processes declined slightly over that time period.[9] It no longer makes sense for Canada to unilaterally and immediately cease the upward momentum of emissions and begin an emissions reduction of more than 25% over the next four years.

The general problem of greenhouse gas regulation pits Alberta against the rest of Canada. Alberta emits nearly one-third of Canada's greenhouse gases,[10] and its emissions have increased the most sharply of all the provinces, from approximately 173 Mt CO_2-eq to 235 due mainly to its oil sands development.[11] Although certain promising greenhouse gas control technologies are on the horizon, Alberta's juggernaut oil sands development will make it difficult for Alberta to contain its greenhouse gas emissions. Politically, this cleave superficially appears either to preclude federal greenhouse gas emissions regulation, or to require a re-enactment of the federal-provincial showdown that marred Canada's first attempt at an energy plan. However, as this article argues, this overstates the potential for legal conflict in the regulation of greenhouse gases in Canada and overlooks many alternatives that are constitutionally sound, if politically challenging.

A. Potential Regulatory Instruments

While the many possibilities for greenhouse gas regulation have been treated extensively elsewhere, a brief review of the potential regulatory instruments would help to frame the discussion in the Canadian context. Only the most frequently discussed types of

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[8] *Supra,* note 5.

[9] *Ibid.*

[10] In 2005, Alberta emitted 235 Mt (Ibid.) out of Canada's 747 Mt (Ibid. at s. 2.1).

[11] Environment Canada, Canada's 2005 Greenhouse Gas Inventory, National Inventory Report 1990-2005: Greenhouse Gas Sources and Sinks in Canada, Table A11-18, 1990-2005 GHG Emission Summary for Alberta, http://www.ec.gc.ca/pdb/ghg/inventory_report/2005_report/ta11_18_eng.cfm. The energy sector (which includes oil sands activities) in Alberta increased its emissions from 148,000 to 200,00, a 52,000-ton increase that accounts for the bulk of Alberta's 62,000-ton increase overall.

schemes are included in this brief review, as a comprehensive treatment, which would necessarily involve scores of ideas, is beyond the scope of this article.

Greenhouse gas regulation could take a traditional form of environmental regulation, sometimes referred to as "command and control" regulation, which typically contemplates some administrative *standard* that serves as a baseline for pollution control performance. The standard could be fixed, specifying a numerical expression of performance, such as in the regulations governing chlor-alkali plants under the Canadian Environmental Protection Act, which provide that "[t]he quantity of mercury that the owner or operator of a plant may release into the ambient air from that plant shall not exceed (*a*) 5 grams per day per 1,000 kilograms of rated capacity, where the source of the mercury is the ventilation gases exhausted from cell rooms…."[12] Alternatively, a standard could be linked to industry practices and contain keywords that hint at how ambitious the polluter must be relative to the industry practice, such as "Best Available Technology Economically Achievable" (BATEA).[13] The distinguishing feature of command-and-control

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[12] Chlor-Alkali Mercury Release Regulations, P.C. 1990-242 15 February, 1990, § 3(1)(a).

[13] This was the language in a 2005 plan by the then-governing Liberal party mandating that new industrial facilities large enough to be considered "large final emitters" would, for the first ten years, have emissions targets based on the emissions rate obtainable by the industry (Department of the Environment, *Notice of intent to regulate greenhouse gas emissions by Large Final Emitters*, Canada Gazette, Part I, July 16, 2005 at p. 2494). What exactly was meant by this terminology is unclear, though similar language in U.S. statutes suggests that the technology required would lie, somewhere between those technologies and techniques that are commonly available and those that are cutting-edge. The U.S. Clean Air Act provides that when a new stationary source of air pollution (defined in the statute as certain "criteria air pollutants") is constructed or significantly modified, the facility must achieve the "lowest achievable emission rate" (Clean Air Act § 173(a)(2), 42 U.S.C. § 7503(a)(2)) if it is located in a heavily polluted zone, and must install the "best available control technology" if it is located in a less polluted zone (Clean Air Act § 165(a)(4), 42 U.S.C. § 7475(a)(4)). Existing stationary pollution sources must install "reasonably available control technology" if they are located in a heavily polluted zone. Clean Air Act § 172(c)(1), 42 U.S.C. § 7502(c)(1). In terms of stringency, "lowest achievable emissions rate" is the most stringent, and "reasonably available control technology" is the least stringent, with "best available control technology" somewhere in between. *See,* Shi-Ling Hsu, *The Real Problem With New Source Review,* 36 Envtl. L. Rep. 10095 (2006).

systems is that compliance is a matter of whether an emitter has adopted the right technology or industrial practices, something that is determined administratively.

In a marked break in philosophy with the traditional means of environmental regulation, "cap-and-trade" programs have gained popularity as a regulatory instrument. Rather than defining compliance in terms of some administratively-set standards, cap-and-trade programs involve the issuance of *allowances* to emitters that permit them to emit a quantity of pollution. Compliance is thus determined solely by whether the emitter has enough allowances to cover its quantity of emissions. Allowances can be traded, and economic theory predicts that the allowances will flow to their highest and best use – to those emitters for whom emissions reduction would be the most costly. This has the effect of concentrating emissions reductions among those for whom emissions reduction would be cheapest, and thereby minimizing overall industry compliance costs. Additionally, cap-and-trade programs are thought to spur innovation because the imposition of a cost on emissions should induce emitters to undertake a self-interested effort to find ways to reduce emissions. Ideally, the total allowances issued would be fixed, producing a hard "cap," and allowances would be scarce enough to achieve a net decrease in emissions. Cap-and-trade programs in the greenhouse gas context typically involve the issuance of allowances to emit some quantity of carbon or carbon dioxide.

In the wake of concerns about the compliance costs of cap-and-trade programs, a less effective alternative has emerged, one favoured by the last two Canadian federal governments: intensity-based emissions trading. Intensity-based emissions trading involves not hard and fixed caps, but moving caps that seek only to reduce greenhouse gas emissions *intensity,* and not necessarily the absolute amount of emissions. Under the intensity-based emissions trading programs proposed by Canadian governments, allowances are issued to emitters on the basis of their productive output, so any emitter that becomes more efficient in operations will be given more allowances. Because the cap is dependent upon productive output, and can be ratcheted up by the achievement of productive efficiencies, there is no hard and fixed emissions "cap" *per se*.

Similar in economic philosophy to cap-and-trade programs, Pigouvian taxes have long been popular among economists for addressing large-scale pollution problems,[14] leading to the idea of a carbon tax surfacing in some policy debates. A carbon tax is a payment based on the actual or anticipated quantity of carbon emissions released into the atmosphere. In practice the tax is levied upon some point of sale involving a carbon-based product that is intended for combustion.[15] The rationales behind Pigouvian taxation and cap-and-trade programs are the same: impose a marginal cost on emissions, and those that can most cheaply reduce emissions will do so. The difference between taxation and cap-and-trade programs is that a cap-and-trade program is essentially a quantity instrument, while a taxation program is a price instrument; taxation programs offer a degree of certainty for emitters that the price of emissions will stay at a particular level, while cap-and-trade programs (if not riddled with political sweeteners) ensure a particular level of emissions, but only among those emitters covered by the cap-and-trade program.

Finally, some regulation may be achieved by using an existing federal statute, the Canadian Environmental Assessment Act, or

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[14] "Pigouvian" is meant to describe a tax that would be consistent with Pigou's prescription that a tax equal to the marginal social harm from pollution should be imposed to provide just the right amount of disincentive for pollution. Alfred C. PIGOU, THE ECONOMICS OF WELFARE 131-135 (1928). Taxes that reflected the extent of negative externality thus became known as "Pigouvian" taxes. WILLIAM J. BAUMOL AND WALLACE E. OATES, THE THEORY OF ENVIRONMENTAL POLICY 21-23 (2d ed., 1988). Important economic texts that have argued for Pigouvian taxation include WILLIAM J. BAUMOL & WALLACE E. OATES, THE THEORY OF ENVIRONMENTAL POLICY 23 (2d ed., Cambridge 1988) ("In sum . . . the proper corrective device is a Pigouvian tax equal to marginal social damage levied on the generator of the externality with no supplementary incentives for victims."); P.S. DASGUPTA & G.M. HEAL, ECONOMIC THEORY AND EXHAUSTIBLE RESOURCES 52-54 (Cambridge 1979) ("Strictly from a *formal* point of view our example suggests that, as long as all costs in running an institution are nil, a tax equilibrium and a competitive equilibrium with markets for externalities are equivalent."); TOM TIETENBERG, ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS 373 (3d ed. Harper-Collins 1992) ("We have shown as long as the control authority imposes the same emission charge on all sources, the resulting reduction allocation *automatically* minimizes the costs of control); PAUL SAMUELSON, ECONOMICS 744 (11th ed., McGraw-Hill 1980) ("Economists propose that greater use be made of pricing mechanisms. Taxes are to be put on firms and industries that put out effluents into the air and ground . . . .").

[15] See text accompanying notes 61-71, *infra.*

"CEA Act." The CEA Act requires an environmental assessment for projects proposed by a federal authority or receiving financial assistance from a federal authority, or for any sale or lease of federal lands, or for any federal action or permitting that implicates an area of federal concern identified by regulation.[16] The "environment" is construed broadly, encompassing "…air, including all layers of the atmosphere."[17] The CEA Act already plays a powerful environmental role in requiring assessment of almost all significant federal projects, and might be deployed in a similar manner in requiring agencies to consider the greenhouse gas implications of federal projects, much as they already do for other environmental impacts. This regulatory option is different from the other options, in that it is a procedural one, and not one that is aimed at achieving any substantive outcome.

B. Federal Attempts at Greenhouse Gas Regulation

In 2007, under intense international pressure, Prime Minister Harper finally dragged the Conservative Party into the climate change discussion, announcing an intention to reduce Canada's total emissions of greenhouse gases to 20% below 2006 levels by the year 2020, and by 60% below 2006 levels by 2050.[18] The Conservative Party plan is an intensity-based emissions trading program, covering the most greenhouse gas-emitting industries, including the electricity generation, oil and gas, aluminum, cement, and pulp and paper industries. Large[19] facilities in existence before 2004 will have 2010 reduction targets of 18% below 2006 levels, with 2% further reductions annually.[20] "New facilities" (with a first year of operation after 2003) will be required to achieve intensity reductions of 2%

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[16] *Canadian Environmental Assessment Act*, s. 5(1).

[17] *Ibid*., ss. 2(1) and 16(1).

[18] Environment Canada, *Turning the Corner: An Action Plan to Reduce Greenhouse Gases and Air Pollution*, available online at http://www.ecoaction.gc.ca/news-nouvelles/20070426-eng.cfm.

[19] The regulations for the plan, which will be finalized later in 2008, will apply to electricity generating facilities that have a capacity of ten megawatts or greater, to upsteam oil and gas facilities that emit 3 kilotonnes or have the capacity to process 10,000 barrels per day, and to facilities in the chemical sector, the nitrogen-based fertilizer sector, and to natural gas pipelines that emit a minimum of 50 kilotonnes of carbon dioxide or the equivalent.

[20] Ibid.

annually after the third year of operation.[21] Oil sands facilities coming online after 2012 must install carbon capture and storage technology.[22] As noted above, with intensity-based emissions trading programs, it is difficult to determine how much emissions reduction will actually take place, because the number of allowances is keyed to productive output. And if there is economic pressure on output (as there clearly will be with a developing industry such as oil sands production), then improvements in productive efficiency will lead to the availability of more emissions allowances, thereby lifting the ceiling on emissions.

Government projections of a 20% decrease from 2006 levels by the year 2020 are hard to evaluate, based as they are on a complicated macroeconomic model,[23] but they do incorporate some assumptions that seem optimistic. For example, the model assumes that, by the year 2020: despite the absence of federal regulation, passenger and freight transportation efficiency would, along with some questionably large gains in automobile efficiency, reduce emissions by 35 megatonnes from a business-as-usual forecast;[24] the East-West transmission grid will be expanded to transport clean power across Canada,[25] a project that will require considerable inter-jurisdictional cooperation; contributions into a mysterious "Technology Fund" will somehow generate 20 megatonnes of emission reduction;[26] and that *offsets* from the agricultural and forestry sectors – greenhouse gas-reducing actions that would not have otherwise been undertaken – would produce almost 50 megatonnes of reduction.[27] It is difficult to say whether these reductions will actually take place, but considering the fanfare with which the federal government has announced its intention to meet very explicit targets of greenhouse gas reductions of 20% by 2020

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[21] Ibid.

[22] *Supra*, note 18, at 3.

[23] Environment Canada developed a model called the Energy-Economy-Environment Model for Canada, which incorporates a variety of economic factors, many of which are global in nature.

[24] Environment Canada, *Turning the Corner: Detailed Emissions and Economic Modelling* 9 (2008) available online at http://www.ec.gc.ca/doc/virage-corner/2008-03/pdf/571_eng.pdf.

[25] Ibid at 28.

[26] Ibid. at 6.

[27] Ibid., at 11.

and 60% by 2050, these assumptions seem like a tenuous foundation upon which to make such specific claims.

Despite mutual criticism between the Liberal and Conservative parties over greenhouse gas regulation, the current proposal bears an odd resemblance to a plan rolled out in 2005 by then-Prime Minister Paul Martin, in that it is an *intensity-based* emissions trading program that covered roughly the same set of seven hundred or so "large final emitters," and allowed contribution to a "Greenhouse Gas Technology Fund" to substitute for actually achieving the mandated emissions intensity improvements.[28] If the current plan is, as opposition parties argue, insufficient,[29] the previous 2005 Liberal plan was delusional. The only concrete part of the Liberal plan was the intensity-based emissions trading plan for large final emitters, which was projected to achieve only fifty-five megatons of emissions reduction, a mere one-fifth of the reductions required to comply with Kyoto.[30] The remaining four-fifths of the emissions reductions were projected to occur as a result of a variety of ill-defined spending programs, such as the Greenhouse Gas Technology Fund.[31] To put it bluntly, the Martin Plan consisted of a modest emissions trading plan and a collection of unsupported assertions about the effectiveness of spending money on undefined research projects.

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[28] Environment Canada, *Turning the Corner: Regulatory Framework for Industrial Greenhouse Gas Emissions* 14 (2008) available online at http://www.ec.gc.ca/doc/virage-corner/2008-03/pdf/541_eng.pdf.

[29] Liberal Party Media Release, "Conservatives Give Large Polluters Free Ride" April 26, 2007, http://www.liberal.ca/story_12734_e.aspx.

[30] *Ibid.*

[31] The Plan included money for a "Climate Fund," in which the federal government would buy emissions credits through international trading; a "Partnership Fund," to fund joint government-private emissions reduction projects; production subsidies for renewable energy; a housing energy efficiency retrofit program, an energy-efficient vehicle purchase program; a "Green Municipal Fund" for cities to undertake emission reduction projects; and a "Sustainable Cities and Communities Fund," a transfer of federal gasoline taxes to cities to fund projects such as landfill gas capture, efficient community energy systems, solid waste management, and transit programs. [cite] In a separate one-off agreement, the federal government obtained a promise from Canadian automakers to reduce their emissions by 3.9 percent by 2009, the only part of the Plan that contemplated an actual emissions reduction.

An interesting twist on the Martin plan is worth noting. The emissions trading plan for large final emitters included a "safety valve" provision that guaranteed that the price of an allowance to emit a tonne of carbon dioxide would not exceed fifteen dollars during the 2008-2012 period.[32] This provision came under heavy criticism, especially from environmental organizations, for limiting the amount of incentive that emitters would face to reduce greenhouse gas emissions.[33]

Such safety valves are not new to environmental economics.[34] If the safety valve level is low enough, it sets the price of emissions and essentially creates a carbon tax,[35] and, by most accounts, fifteen dollars per tonne is a low level, although as noted above, the fact that the program was intensity-based means that allowances could be plentiful enough to drive the price still lower.[36] The interesting question is why would such an elaborate emissions trading plan with a safety valve be put in place, if the goal was essentially to tax emissions at a maximum of fifteen dollars per tonne? Couldn't some sort of a tax scheme be devised to achieve the same thing, but in a much simpler fashion?

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[32] Notice of Intent to Regulate Greenhouse Gas Emissions by Large Final Emitters, Canada Gazette, 2005.I.716, July 16, 2005, available online at http://canadagazette.gc.ca/partI/2005/20050716/html/notice-e.html; *Greenhouse Gas Technology Investment Fund Act*, 2005, c. 5, s. 96 at s.8(5).

[33] Pembina Institute for Appropriate Development, *Moving Ahead on Large Final Emitters (LFEs)*, Briefing Note, December 2, 2004, available online at http://pubs.pembina.org/reports/LFE20041202_Brief_Moving_on_LFE.pdf.

[34] Henry D. Jacoby and A. Denny Ellerman, *The Safety Valve and Climate Policy,* 323 ENERGY POLICY 481 (2004); Marc J. Roberts & Michael Spence, *Effluent Charges and Licenses Under Uncertainty,* 5 J. PUBL. ECON. 193 (1976); Willam A. Pizer, *Prices vs. Quantities Revisited: the Case of Climate Change,* Resources for the Future Discussion Paper 98-02 (1997), available online at http://www.rff.org/rff/Documents/RFF-DP-98-02.pdf.

[35] Id, at 481.

[36] As discussed above, *supra,* notes 219-229 and text accompanying, the European Union Emissions Trading System, was deemed a failure because the allowance prices dipped to below ten Euros on several occasions, frustrating attempts to induce investment in low-carbon technologies. *See, also,* Jacoby and Ellerman, *supra*, note 34, at 484 (reviewing studies of . British Columbia has introduced a carbon tax that starts at ten dollars per tonne and increases to thirty dollars per tonne over five years, suggesting that over the long run, thirty dollars is closer to an optimal tax level. See, *infra*, text accompanying notes 67-69.

There are two answers to this question, one psychological and one political. The psychological answer harkens back to the special aversion to all policies bearing the word "tax," especially in Alberta, where memories of the NEP remain fresh twenty-five years later, and especially if the federal government is involved.[37] "Taxes" *per se* are so unpopular in North America, that influential economists have argued that a safety valve is a way of introducing a tax-like mechanism without necessarily introducing the "baggage" involved with emissions taxes.[38]

But there is a political aspect to this question, pertaining to the level of the tax: how did the figure fifteen dollars per tonne come about? The answer is not, as one might think, that it represented the acceptable level for those in Albertan oil and gas industries; fifteen dollars per tonne would have represented a tax of about $6.60 per barrel of oil,[39] and a mere four cents per litre of gasoline – a cost that could almost invisibly be passed on the gasoline consumer. It was not Alberta that insisted on this safety valve.

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[37] *Carbon Tax Proposal a Non-starter in Alberta,* CBCNews.ca, January 8, 2008, online at http://www.cbc.ca/canada/calgary/story/2008/01/08/renner-carbon.html.

[38] See, e.g., Jacoby and Ellerman, *supra*, note 34, at 485; Willam A. Pizer, *Choosing Prices or Quantity Controls for Greenhouse Gases,* Resources for the Future Climate Issues Brief No. 17 9 (1999), available online at http://www.rff.org/rff/Documents/RFF-CCIB-17.pdf ("...the advantages of a carbon tax can be achieved without the baggage of an actual tax.");

[39] A carbon tax levied on production of a barrel of oil would measure the carbon content on a barrel, and could levy the tax against the producer. The carbon content of crude oil is approximately 19.9 metric tonnes per terrajoule, or 0.0199 tonnes per gigajoule. A barrel of oil typically contains 6.1 gigajoules, so the carbon content of a barrel of oil is typically 0.12 tonnes. The tax is on emissions of a tonne of carbon dioxide, which has a molecular weight of 44, as opposed to the molecular weight of carbon, which is 12. Emitting 0.12 tonnes of carbon would thus be the same as emitting 0.44 tonnes of carbon dioxide. With a tax of $15 per tonne of carbon dioxide, the tax on a barrel of oil would be about $6.60 per barrel. There are 42 U.S. gallons of gasoline to a barrel, so that this tax amounted to about fifteen cents per gallon of gasoline. Figures are from Oak Ridge National Laboratories, Bioenergy Conversion Factors, online at http://bioenergy.ornl.gov/papers/misc/energy_conv.html. World crude oil prices ranged from $35 per barrel to $60 per barrel in 2005. U.S. Department of Energy, Energy Information Administration, All Countries Spot Price FOB Weighted by Estimated Export Volume, online at http://tonto.eia.doe.gov/dnav/pet/hist/wtotworldw.htm.

The answer can be found in those ridings in which the Liberal government was most afraid of losing in an imminent federal election: manufacturing-heavy, greenhouse gas-intensive ridings in Southern Ontario. Pandering to Alberta would have done the Liberal party no good, but minimizing defection in Liberal ridings to the Conservative party was critical to preserving a Liberal minority government. For example, the Anacaster-Dundas-Flamborough-Westdale riding, home to the Carmeuse Lime production facility, which emitted over 600,000 tonnes of CO_2 in 2004[40] (about three-quarters of Ontario's lime production emissions[41]), saw very close races in 2004 and 2006: Liberal candidate Russ Powers narrowly defeated Conservative candidate David Sweet by 39% to 35% in 2004, only to have those numbers reversed in a 2006 loss.[42] In the extremely greenhouse gas-intensive riding of Sarnia-Lambton, facilities belonging to Cabot Canada, Imperial Oil, Suncor, BP Canada, TransAlta Energy, and NOVA Chemicals, emitted a reported total[43] of over 4.75 Mt of CO_2 in 2006[44] – almost five percent of all of Ontario's emissions – and saw a similar flip in a tight race, with Liberal MP Roger Gallaway narrowly winning in 2004 but losing to a Conservative in 2006.[45] The Liberal Party did manage to hang on to their Mississauga South riding, home to Petro-Canada and St. Lawrence Cement plants, the source of another four million tonnes of CO_2 emissions,[46] but Liberal incumbent Paul Szabo's margin of victory shrunk from eighteen points in 2004 to less than four in 2006.[47]

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[40] Greenhouse gas emissions for individual facilities can be found online at Environment Canada, Information on GHG Sources, Facility GHG Reporting, at http://www.ec.gc.ca/pdb/ghg/facility_e.cfm.

[41] Environment Canada, National Greenhouse Gas Inventory Report, 1990-2004: Greenhouse Gas Sources and Sinks in Canada, Annex 12, online at http://www.ec.gc.ca/pdb/ghg/inventory_report/2004_report/ta12_13_e.cfm.

[42] 2004 election results for Ontario ridings can be found online at CBC Canada Votes 2004, http://www.cbc.ca/canadavotes2004/candidatesridings/ontario/index.html; 2006 results can be found online at CBC Canada Votes 2006, http://www.cbc.ca/canadavotes/candidatesridings/ontario/index.html.

[43] Not all facilities report their greenhouse gas emissions.

[44] *Supra,* note 40.

[45] *Supra,* note 42.

[46] *Supra,* note 40.

[47] *Supra,* note 42.

Politicians are particularly sensitive about talking about greenhouse gas regulation in Southern Ontario, because many industries are vulnerable to trade pressures, such as automobile manufacturing (both parts production and assembly), lime and cement manufacturing, and chemical manufacturing. The suffering and high-emitting automotive industry is always nervous about greenhouse gas regulation, particularly as Ontario is home to plants belonging to the most vulnerable automaker of all, General Motors. The 2005 Liberal Plan, rather than imposing vehicle fuel efficiency regulations on the Canadian auto industry, instead entered into a memorandum of understanding with the industry, calling for a reduction of 5.3 megatonnes per year by 2010.[48] This was an unambitious target, given that road vehicles accounted for 135 megatonnes of greenhouse gas emissions in 2005.[49] As for emissions from automotive manufacturing, it is again worth noting that some of the most competitive ridings, such as the St. Catherine's and Oshawa ridings,[50] are home to General Motors truck and car assembly plants. The Oshawa plants together emitted about 275,000 tonnes of CO_2 in 2004,[51] which would have meant an annual effective carbon tax bill of over four million dollars. Such a sum is not fatal to such a large industry, but unwelcome in an economically distressed environment.

Ontario also produces almost half of Canada's cement,[52] forty percent of which is exported to the United States.[53] In a highly competitive world market, added costs imposed upon Canadian cement manufacturers might affect their competitiveness, causing

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[48] Natural Resources Canada, Automakers Agreement to Reduce GHG Emissions (2005), online at http://oee.nrcan.gc.ca/transportation/ghg-memorandum/index.cfm.

[49] Environment Canada, National Inventory Report, 1990-2005: Greenhouse Gas Sources and Sinks in Canada, Table S-3, online at http://www.ec.gc.ca/pdb/ghg/inventory_report/2005_report/s2_eng.cfm#s2_3.

[50] In 2004, Conservative Colin Carrie won the Oshawa riding by a less then one percent margin, and in 2006, Conservative Rick Dykstra won by 0.42%. *Supra,* note 42.

[51] *Supra*, note 40.

[52] Ontario Ministry of Northern Development and Mines, Cement Production and Quarrying in Ontario, online at http://www.mndm.gov.on.ca/mines/ogs/resgeol/rfe/commodity/cement.pdf.

[53] Cement Association of Canada, Cement Briefing Paper, undated (on file with author).

their world market share to fall. A cement industry spokesperson reports that cement made in China is only slightly more expensive than that made in North America. Curiously, the difference between Canadian cement and Chinese cement landing in Seattle is about $15 per ton.[54] Because the cement industry emits greenhouse gases at the rate of very roughly one tonne of carbon dioxide to one tonne of finished cement,[55] a $15 dollar per ton tax on CO_2 would exactly offset the competitive advantage currently enjoyed by Canadian cement manufacturers over their Chinese competitors. Could this have been the source of the $15 per ton safety valve amount? Certainly, no government official or cement industry representative would admit to this, but the coincidence is curious.

Throughout greenhouse gas-intensive and economically vulnerable Southern Ontario, the story seemed to be one of the Liberal Party in trouble and trying to hang on to seats in competitive ridings. The safety valve, then, would seem to have been meant to protect Ontario manufacturing interests, not Alberta oil and gas interests, and to address a fear of losing manufacturing jobs to the U.S., which had no prospect at that time of greenhouse gas regulation. But Canadian public opinion, and Ontario public opinion, in particular, has never been as fearful of greenhouse gas regulation as federal politicians have been. Greenhouse gas-intensive (and supposedly fearful) Ontario has joined, along with British Columbia and Manitoba, the Western Climate Initiative, a California-led state and provincial effort to reduce greenhouse gases.[56] It always seems to be the case that the federal government has trailed public opinion and even industry opinion on greenhouse gas regulation. In the greenhouse gas context, inter-regional politics seem to drive the federal government to the lowest common denominator in order to maintain a fragile hold on power. While Canadian federalism would seem to present obstacles to greenhouse gas regulation, closer inspection reveals only political obstacles, and not necessarily accurately perceived ones at that.

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[54] Personal email communication from Martin Vroegh, Environment Manager, St. Marys Cement Inc., to Patrick O'Brien, July 15, 2008 (on file with author).

[55] *Ibid.*

[56] See text accompanying note 73, *infra*.

C. Provincial Experiences with Greenhouse Gas Regulation

While greenhouse gas policy has been a political football at the federal level, provinces have proceeded as if there were no prospect of federal-provincial conflicts at all. Provinces have largely gone their own disparate ways in developing or not developing their own greenhouse gas policies. In 1999, Alberta convened Climate Change Central (CCC), a climate change policy group composed of government and business interests to develop Alberta's policy response to Kyoto. In 2002, Alberta announced its plan to reduce carbon *intensity* by fifty percent below 1990 levels by 2020. Again, no actual emissions reduction was required, only an improvement in the rate of greenhouse gas emissions per unit of output. The non-profit Pembina Institute issued an analysis showing that the intensity targets were so lax that it would have allowed a 72% increase in emissions by 2020.[57]

An updated plan was announced in 2007, which called for a new set of intensity targets to be met starting in 2010.[58] The government of Alberta also announced that it would embark upon a program to fund carbon capture and storage, an end-of-pipe technology that captures carbon dioxide as it leaves the smokestack, and pipes it to underground caverns to be stored in perpetuity.[59] Generally sticking with its 2002 plan, Alberta projected that Alberta emissions in 2050 would be 14% lower than in 2005. As did the federal government, the Alberta government more prominently announced that the 2050 emissions reductions would be 50% below *business as usual* levels,[60] which certainly sounds better. But that compares the emissions reduction with a projected upward trajectory

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[57] http://www.pembina.org/media-release/1387.

[58] *The Climate Change and Emissions Management Act,* SA 2003, c. C-16.7, s.3; Alberta Alta. Reg. 139/2007, ss. 3-4; Alberta Ministry of Environment, State of the Environment – Climate Change: Greenhouse Gas Emissions Intensity, *Government of Alberta* (June 20, 2007) online: http://www3.gov.ab.ca/env/soe/climate_indicators/15_ghg.html.

[59] Government of Alberta, Climate Change Plan, available online at http://alberta.ca/home/NewsFrame.cfm?ReleaseID=/acn/200801/22943ACC446ED-ED74-6A1E-6CF263E59920969B.html.

[60] Environment Alberta, Alberta's 2008 Climate Change Strategy: Responsibility, Leadership, Action 5, January, 2008 available online at http://environment.gov.ab.ca/info/library/7894.pdf

of future emissions growth, essentially congratulating itself for diverging from its current profligacy.

British Columbia and Quebec, which have implemented carbon taxes, have levied a carbon tax at the point of sale, in essence taxing the sale of a fossil fuel in the province. This approach has many administrative advantages, as the wholesale purchase of fossil fuel is an easily trackable transaction, and therefore a convenient enforcement point. In general, carbon taxes are administratively simpler to design and carry out than any emissions trading scheme, particularly an intensity-based scheme.

The Quebec carbon tax applies to the distribution within the province of "gasoline, diesel fuel, heating oil, propane, petroleum coke or coal, but not aviation fuel, marine bunker fuel, hydrocarbons used as raw material by industries that transform hydrocarbon molecules through chemical or petrochemical processes or renewable fuel content…"[61] The carbon tax is administered by the Regie de l'energie, the provincial energy regulatory agency, which determines the tax rate annually, taking into account "greenhouse gas emission reduction objectives … and the overall financial investment to be made to meet greenhouse gas emission reduction objectives and to carry out measures arising from any government policy or strategy that is designed to fight [and adapt to] climate change…."[62] The actual levy paid by distributors of fossil fuels is determined at the end of the year by dividing the desired amount of "overall financial investment" into a "Green Fund" by the total amount of carbon emissions,[63] and calculating each distributor's share of those emissions, taking into account the carbon content of different fossil fuels.[64] Fossil fuels sold in Quebec are *presumed* to be intended for consumption in Quebec unless otherwise shown by the distributor.[65] Quebec's carbon tax took effect in November, 2007.[66]

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[61] Government of Quebec, Regie de l'energie, *Mission,* http://www.regie-energie.qc.ca/en/regie/mission.html, last updated March 3, 2008, s. 85.34.

[62] *Ibid*, at s. 85.35.

[63] Quebec O.C. 1049-2007, 28 November 2007, s. 1

[64] *Ibid.* at s. 4.

[65] *Ibid.* at s. 5.

[66] *Ibid.* at s. 5.

British Columbia announced a carbon tax in February, 2008, which would be levied against the sale of all fossil fuels within the province, at the rate of $10 per tonne of carbon emissions (as measured by the carbon content), starting July 1, 2008.[67] The tax increases by $5 per year to $30 per tonne in 2012. For gasoline, the tax would amount to 2.41 cents per litre in 2008, increasing to 7.24 cents per litre by 2012. Diesel fuel and home heating oil would start at a tax of 2.76 cents per litre and rise to 8.27 cents by 2012.[68] An important political piece of this plan was the stated intention to make the carbon tax revenue neutral, in that revenues from the tax would be returned somehow to B.C. individuals and firms. Forecasted tax revenues seem to allow the Ministry to announce specific cuts in corporate, small business, and personal income tax rates, and lump sum payments.[69] Notably, the lump sum payments and the personal income tax reductions are tilted towards lower-income British Columbians,[70] to address perceptions that consumption-based taxes such as carbon taxes and gasoline taxes are regressive.[71]

In addition, the British Columbia government has introduced a bill providing for a cap-and-trade program that will apply to greenhouse gas emitters within the province.[72] Almost all of the pertinent details have been left to regulations, but this is understandable since the Province has committed to participate in a

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[67] Legislative Assembly of British Columbia, 2008 Legislative Sessions: 4th Session, 38th Parliament, Carbon Tax Act, Bill 37, First Reading, online at http://www.leg.bc.ca/38th4th/1st_read/gov37-1.htm, § 1(1), Table 1.

[68] Ibid.

[69] Government of British Columbia, Ministry of Finance, B.C.'s Revenue-neutral Carbon Tax, Backgrounder (2008), online at http://www.bcbudget.gov.bc.ca/2008/backgrounders/2008_Backgrounder_Carbon_Tax.pdf.

[70] The "Climate Action Credit" provides an annual lump sum payment of $100 per adult and $30 per child, increasing in future years. Backgrounder, at 2. Personal income tax rates will be reduced on the first $70,000 in earnings. Ibid.

[71] Gasoline costs take up a larger proportion of a poor driver's paycheck than that of a rich driver, so the thinking goes, such that an increase would deprive poorer drivers of more basic goods than rich drivers. The extent that poor drivers are just stuck, unable to substitute away from driving, appears to be more myth than empirical fact. The actual determination of whether a gasoline tax is regressive or not is complicated. For a further discussion, see note _x_, *infra*.

[72] Legislative Assembly of British Columbia, 2008 Legislative Sessions: 4th Session, 38th Parliament, Greenhouse Gas Reduction (Cap and Trade) Act, Bill 18, First Reading, online at http://www.leg.bc.ca/38th4th/1st_read/gov18-1.htm.

California-led state-and-province greenhouse gas emissions trading reduction plan, the Western Climate Initiative,[73] the details of which have not been finalized.

Manitoba, which also joined the Western Climate Initiative, announced that it intends to legislate a commitment to meeting its share of Canada's Kyoto targets, a six percent reduction in greenhouse gases below 1990 levels.[74] Unfortunately, Manitoba's plan, "Kyoto and Beyond,"[75] seems predicated on some of the same creative accounting employed by the last two federal governments, one that measures emissions reduction in terms of its divergence from a "business as usual" baseline. For example, Manitoba gives itself credit for 1.1 Mt of greenhouse gas reduction for construction of the Wuskwatim Hydro Generation Project, which will generate electricity for export out of the province.[76] While this may be a laudable hydro project to meet increasing electricity demands, it is a bit self-serving to call construction of a dam an emissions "reduction."

Also jumping on board with the Western Climate Initiative are the provinces of Ontario and Quebec, which penned their own bi-provincial memorandum of understanding earlier this year, agreeing to agree on a cap-and-trade scheme between the two provinces.[77] While details are lacking, a joint initiative of the two most populous Canadian provinces is clearly a signal of widespread impatience with federal efforts. Ontario's initiative also defies federal politicians' expectations that greenhouse gas regulation would be a political hot potato in that greenhouse gas-intensive manufacturing region.

Curbing greenhouse gas emissions in Canada will obviously be challenging, as it will be for any industrialized country subject to

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[73] http://www.westernclimateinitiative.org/.

[74] Government of Manitoba, News release, Beyond Kyoto Outlines Manitoba's Green Future: Rondeau, April 21, 2008, online at http://www.gov.mb.ca/chc/press/top/2008/04/2008-04-21-100300-3541.html.

[75] Government of Manitoba, Kyoto and Beyond: Meeting and Exceeding Our Kyoto Targets, available online at http://www.climatechangeconnection.org/Resources/documents/kyoto_plan.pdf.

[76] Ibid., at 4.

[77] Memorandum of Understanding Between the Government of Ontario and the Government of Quebec, June 2, 2008, online at http://www.premier.gov.on.ca/news/Product.asp?ProductID=2281.

Kyoto targets. But an overly cynical treatment of the greenhouse gas problem as a political football and the dubious use of "business as usual" baseline calculations are surely not helping matters. This, and the perception that constitutional barriers exist, are unnecessary obstacles to the formation of Canadian greenhouse gas regulation. British Columbia and Quebec have certainly taken a lead in greenhouse gas regulation, but the magnitude of greenhouse gas reductions required of Canada necessitates a federal response, and one that is considerably more serious than any proposed to date.

III. The Constitutional Dimension

The validity under sections 91 and 92 of the *Constitution Act, 1867* of legislation enacted by the federal and provincial orders of government to regulate greenhouse gas emissions will depend on a number of factors.[78] One of those, obviously, is the precise nature of the legislation enacted. Some kinds of legislation will be easier to defend than others. For example, there is little reason to doubt that the federal order of government has the power under s. 91(3) to enact legislation imposing a carbon tax. Another factor is the extant body of jurisprudence governing the scope and meaning of the various heads of federal and provincial power in sections 91 and 92 upon which the two orders of government would be expected to rely in support of their legislation. In the case of some of the relevant heads of power – Parliament's power to legislate for the "Peace, Order and Good Government of Canada" (hereinafter "POGG"), for example - the courts have formulated reasonably comprehensive definitions or tests. In the case of others – the provincial legislatures' power to legislate

[78] The jurisdictional question addressed in this part of the paper has been discussed in one form or another by a number of authors already: see, e.g., Rolfe, C., "Turning Down the Heat: Emissions Trading and Canadian Implementation of the Kyoto Protocol," (Vancouver: West Coast Environmental Law Research Foundation, 1998); Castrilli, J.F., "Legal Authority for Emissions Trading in Canada," in *The Legislative Authority to Implement a Domestic Emissions Trading System* (Ottawa: National Round Table on the Environment and the Economy, 1999) App. 1; Barton, P., "Economic Instruments and the Kyoto Protocol: Can Parliament Implement Emissions Trading Without Provincial Co-operation?" (2002), 40 Alta. L. Rev. 417; and Bankes, N. and A.R. Lucas, "Kyoto, Constitutional Law and Alberta's Proposals," (2004), 42 Alta. L. Rev. 355. It should be noted that the conclusions reached by these various authors in relation to the specific issues they considered were far from unanimous.

in relation to "Property and Civil Rights in the Province," for example – the understanding we have of their scope and meaning is based on a series of decisions rendered over a long period of time that tell us which kinds of "matters" come within the head of power and which do not. In either case, judges often have a good deal of room in which to maneuver when called upon to apply the extant jurisprudence in a specific case. That is more likely to be true if the impugned legislation is of a novel kind.

A third factor is the set of analytical tools the courts have created to assist them in determining how particular legislative enactments are to be characterized for division of powers purposes, and the manner in which those tools would be used in the context of challenges to particular legislative enactments. That characterization process – the determination of the impugned legislation's true "matter" or "pith and substance" – is absolutely critical to the outcome of a constitutional attack on division of powers grounds. The parties to the challenge will each advance one or more characterizations that, in their view, will improve their chances of obtaining, if not guarantee, a favourable result. While the tools judges use to make that determination do serve to constrain the choices available to them in this regard, those tools are nevertheless sufficiently malleable to leave judges with a great deal of room to maneuver in many cases. Again, that is more likely to be true if the impugned legislation is of a novel kind.

A fourth factor is the attitude that the judiciary will bring to bear on the task of reviewing the constitutionality of legislation in this area. It is this factor that will influence the choices judges make in exercising the discretion they have in such cases. The judicial attitudes that will matter most are attitudes towards Canadian federalism, both generally and in the specific context of environmental protection, and, more particularly, the goals underlying attempts to reduce or at least control the level of greenhouse gas emissions. Some judges can be expected, either generally or in this specific context, to have centralist leanings, others to have provincialist leanings, and still others to be agnostic and therefore receptive to both orders of government being able to legislate in this area. Receptivity to both orders legislating in the area

will likely be enhanced by an acceptance of the importance of the goals underlying such attempts.

The fact that the validity of legislation depends on so many factors means that, even if one knows exactly what legislation one is dealing with, confident predictions are often difficult to make. That is even more likely to be true if one is discussing in the abstract the question of which order of government can enact a particular kind of statute to deal with a social or economic problem, as we are here. Hence, while we will be making a number of predictions about the likelihood of certain kinds of legislative initiatives being open to the two orders of government in this paper, we do not want to be taken as having committed ourselves unreservedly to those views.

We begin with three general observations about the manner in which the Supreme Court of Canada has tended to approach the task of reviewing on federalism grounds legislation designed to protect the environment. The first is that the Court has made it clear that the power to protect the environment does not reside exclusively with either Parliament or the provincial legislatures. As Justice LaForest put it on behalf of eight members of the Court in *Friends of the Oldman River Society v. Canada,*[79] "… the *Constitution Act, 1867* has not assigned the matter of 'environment' *sui generis* to either the provinces or Parliament. The environment, as understood in its generic sense, encompasses the physical, economic and social environment touching several of the heads assigned to the respective levels of government."[80] Justice LaForest in fact went so far in that case as to say that the environment in this broad sense was "a constitutionally abstruse matter which does not comfortably fit within the existing division of powers without considerable overlap and uncertainty."[81]

The jurisprudence makes it clear that this connection to heads of power on both sides of the federal-provincial divide is present even if the word "environment" is understood in more limited terms to mean the physical environment alone. Hence, the courts have upheld

[79] [1992] 1 S.C.R. 3
[80] *Ibid*., at p.63.
[81] *Ibid*., at p. 64.

as valid both federal[82] and provincial[83] legislation designed to protect the physical environment. They have been able to do that in part because they have shown a willingness to permit Parliament and the provincial legislatures to rely in support of such legislation on their respective jurisdictions over both some of the *causes* and some of the *effects* of polluting activities.[84] For example, Parliament can regulate the polluting activities of interprovincial railways because it has jurisdiction over "…railways…connecting [one] province with any other or others of the provinces…" under s. 92(10)(a). It can also regulate polluting activities that harm the fisheries[85] and the waters of the territorial sea[86] because it has jurisdiction over "seacoast and inland fisheries" and the territorial sea under s. 91(12) and the POGG power respectively. Similarly, it is generally understood that the provincial legislatures can regulate the polluting activities of the mining and manufacturing industries because they have jurisdiction over the business activities of those industries under "property and civil rights" in s. 92(13).[87] Provincial legislatures can also regulate polluting activities that harm provincial Crown lands and inland waterways because they have jurisdiction over such lands and waterways under s. 92(5) and 92(13) and/or (16) respectively.[88]

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[82] See, e.g., *R. v. Crown Zellerbach*, [1988] 1 S.C.R. 401 (using POGG) and *R. v. Hydro-Quebec*, [1997] 3 S.C.R. 213 (using s. 91(27))

[83] See, e.g., *R. v. Lake Ontario Cement Ltd.*, [1973] 2 O.R. 247 (using s. 92(13) and (16) together).

[84] The term "effects" in this context is intended to refer to jurisdiction over the place, entities or activities that suffer the environmental damage caused by the polluting activity in question.

[85] *Northwest Falling Contractors Ltd. v. The Queen*, [1980] 2 S.C.R. 292.

[86] All seven of the judges in *R. v. Crown Zellerbach, supra*., note 82, agreed with this proposition in *obiter*.

[87] See Hogg, P.W., *Constitutional Law of Canada, Constitutional Law of Canada* (2007 Student Edition, Thompson Carswell), chapter 30.7. The use of this head of power to sustain provincial legislation regulating industries such as these is a function of the early jurisprudence of the Judicial Committee of the Privy Council, notably in cases like *A.-G. Canada v. A.-G. Alberta (The Insurance Reference)*, [1916] 1 A.C. 589 and *Reference re The Board of Commerce Act, 1919*, [1922] 1 A.C. 191.

[88] There is no direct authority in support of this proposition that we are aware of, but it can in our view be said to be implicit in the approach taken to the division of legislative authority over the environment in the majority reasons for judgment in *Friends of the Oldman River Society v. Canada, supra*, note 82.

The courts' willingness to approach questions about the validity of environmental protection legislation in this manner contributes in an important way to the "considerable overlap" of federal and provincial legislation in this area noted by Justice LaForest in *Oldman River*. The same polluting activities can, in theory, be regulated by both orders of government, one on the basis of its jurisdiction over the cause of those activities, and the other on the basis of its jurisdiction over the entities or places experiencing their effects. For example, a shipping company whose routes take it into waters that feed into local waterways can at one and the same time be subject to federal legislation (enacted under s. 91(10)) and provincial legislation (enacted under s. 92(13) and/or (16)).[89] Only if the provincial enactment can be said to conflict with the federal and thereby trigger the application of the doctrine of federal paramountcy – not an easy hurdle to meet, even under the Supreme Court's new approach to that doctrine[90] - will the shipping company be able to avoid the application of the former.

The second observation is that the Supreme Court has been willing to permit Parliament to regulate certain kinds of polluting activities under its POGG and criminal law (s. 91(27)) powers even though it has had to push the doctrinal envelopes governing those two heads of power in order to do so. In *R. v. Crown Zellerbach*,[91] decided in 1988, the Court upheld the federal *Ocean Dumping Act*[92] on the basis of the national concern branch of the POGG power in spite of the fact that, as the dissenting judges pointed out,[93] marine

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[89] This assumes, of course, that the provincial legislation is directed at the protection of the local waterways rather than at the polluting activities of ships *per se*.

[90] See Elliot, R., "Safeguarding Provincial Autonomy from the Supreme Court's New Federal Paramountcy Doctrine: A Constructive Role for the Intention to Cover the Field Test?" (2007), 38 S.C.L.R. (2d) 629.

[91] [1988] 1 S.C.R. 401.

[92] S.C. 1974-75-76, c. 55.

[93] There were three dissenting judges in this case, Justices Beetz, Lamer and LaForest. Their reasons for judgment, authored by Justice LaForest, placed particular emphasis on the significant negative impact that sustaining the *Act* on the basis of the national concern doctrine would have on provincial jurisdiction over the area in question (here, environmental protection), arguably the most important consideration the courts are required to take into account when asked to uphold federal legislation under that rubric. (See *Reference re Anti-Inflation Act*, [1976] 2 S.C.R. 373.)

pollution, the "matter" attributed to the *Act*, arguably lacked the characteristics required of legislation sustained under that rubric. And in *R. v. Hydro-Quebec*,[94] decided in 1997, it upheld under s. 91(27) the toxic substances provisions of the *Canadian Environmental Protection Act*[95] in spite of the fact that, again as the dissenting judges pointed out,[96] those provisions looked to be far more regulatory than prohibitory in nature.[97] Taken together, these two decisions can be said to reflect a willingness on the part of the Supreme Court of Canada to use the room to maneuver that the doctrine in this area leaves them with to afford the federal order of government broad authority to protect the physical environment. They also reflect a high degree of sympathy on the Court's part for the goal of environmental protection.

Hydro-Quebec can also be said to reflect a growing preference on the Court's part for permitting both orders of government to legislate in furtherance of that goal. Justice LaForest, who authored the majority reasons in that case, defended his use of s. 91(27) to validate *C.E.P.A.*'s toxic substances provisions at least in part on the ground that, unlike the national concern branch of POGG, which had been advanced as an alternative basis upon which to sustain those provisions, "The use of the federal criminal law power in no way precludes the provinces from exercising their extensive powers under s. 92 to regulate and control the pollution of the environment either independently or to supplement federal action."[98] In other words, by upholding those provisions on the basis of s. 91(27), the Court would in no way restrict the ability of the provincial legislatures, using the array of weapons available to them, to enact legislation protecting the environment.

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[94] [1997] 3 S.C.R. 213.

[95] R.S.C. 1985, c. 16 (4th Supp.).

[96] The dissenting judges were Chief Justice Lamer and Justices Sopinka, Iacobucci and Major. Their reasons for judgment were co-authored by Chief Justice Lamer and Justice Iacobucci.

[97] The test that federal legislation has to meet in order to qualify as criminal law under s. 91(27) includes the requirement that the legislation be prohibitory in character. (See *Reference re s. 5(a) of the Dairy Industry Act (Margarine Reference)*, [1949] S.C.R. 1.) It is worth noting that the majority in *Hydro-Quebec* accepted that that was the governing test.

[98] *Supra.*, note 94, at para. 131.

Thirdly, the law is clear that the power to enact legislation in implementation of obligations undertaken by the Government of Canada in an international treaty or convention does not fall to Parliament simply because the legislation has been enacted for that purpose. As Lord Atkin of the Privy Council put it in the *Labour Conventions*[99] case, "For the purposes of ss. 91 and 92,… there is no such thing as treaty legislation as such."[100] Jurisdiction to enact legislation to implement treaty obligations rests with the order of government that has jurisdiction to legislate in relation to the subject matter of those obligations. The federal order cannot therefore claim jurisdiction to enact legislation regulating greenhouse gas emissions on the basis that such legislation is being enacted in fulfillment of Canada's obligations under the Kyoto Protocol.

That said, there is support in the jurisprudence for the notion that the fact that federal legislation has been enacted to implement treaty obligations might assist the federal government's cause if that legislation were to be subjected to attack on federalism grounds, at least if the subject matter of the treaty can be said to relate to a matter of "predominantly extra-provincial as well as international character and implications."[101] That language comes from the majority reasons for judgment of Justice LeDain in *Crown Zellerbach*, in which, as noted above, the Supreme Court upheld the federal *Ocean Dumping Act*[102] on the basis of the national concern branch of POGG. That statute had been enacted in fulfillment of Canada's obligations under the *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter*,[103] and Justice LeDain's description of the subject matter of that treaty as being of "predominantly extra-provincial as well as international character and implications" appeared to be a significant factor in his reasoning process. Given that the Kyoto Protocol clearly deals with a matter fitting that description, there is reason to believe that federal legislation

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[99] [1937] A.C. 326.

[100] *Ibid.*, at p. 17.

[101] *R. v. Crown Zellerbach Canada Ltd.*, *supra.*, note 82, at p. 436.

[102] S.C. 1974-75-76. c. 55.

[103] The *Ocean Dumping Act* went further in terms of its reach than the treaty required Canada to go. It applied to internal marine waters as well as the territorial sea and other external marine waters. It did not, however, apply to inland waters.

regulating greenhouse gas emissions would be on stronger ground than it might otherwise be because of its connection to that treaty.

A. Provincial Jurisdiction

We consider here the question of whether or not the provincial legislatures have the requisite constitutional authority to regulate greenhouse gas emissions through the vehicles of (a) a carbon tax, (b) a cap-and-trade/intensity-based trading regime, and (c) a command-and-control regime

1. Carbon Taxes

The power of the provincial legislatures to tax is prescribed by s. 92(2) of the *Constitution Act, 1867* in the following terms: "Direct Taxation within the Province in order to the raising of a Revenue for Provincial Purposes." Those terms suggest that, in order for provincial legislation to be sustained on the basis of s. 92(2), the legislation must (a) impose a "tax," which tax must (b) be "direct," (c) be imposed "within the province," and (d) be imposed "in order to the raising of a revenue for provincial purposes."

Given the manner in which requirements (a), (b) and (c) have come to be understood, there is little doubt that provincial legislation imposing a carbon tax of the kind that we have discussed above would be held to impose a "tax," and that that "tax" would be held to be both "direct" and imposed "within the province." The monies paid under such legislation would clearly satisfy the definition of a "tax" for this purpose. Equally clearly, they would not have the character of charges levied for the use of public property, or of fees levied to help pay for the costs of administering a regulatory scheme, both of which have been held *not* to qualify as "taxes."[104] On the assumption that it was levied against consumers of the products in question in respect of the particular units of those products that those consumers purchase, as the carbon tax in British Columbia is,[105] that tax would be held to

[104] See Hogg, P.W., *Constitutional Law of Canada, supra*., note 87, chapter 31.10 for a discussion of the relevant jurisprudence.

[105] *Carbon Tax Act*, S.B.C. 2008, c. ---, ss. 8 – 13.

be a "direct" tax.[106] Such a tax is in the nature of a sales tax levied against consumers, which the courts have long accepted to be direct taxes.[107] And the tax would be held to be levied "within the province" because the only consumers required to pay it would likely be those who either purchase and consume the product in the province in which the tax is levied, or, as residents of or businesses operating within that province, purchase it elsewhere and bring the product into the province for consumption there.[108]

This leaves us with requirement (d) – that the tax be levied "in order to the raising of a Revenue for Provincial Purposes." On the face of it, that language would appear to provide the basis for a challenge to a provincial carbon tax that is revenue neutral, like the tax imposed by the Legislature of British Columbia.[109] Can it not be argued that a tax that is advertised as being, and is required by the legislation imposing it to be, revenue neutral has not been levied "in order to the raising of a revenue"? And if the tax has not been levied for that purpose, can it not be said that the legislation imposing it exceeds provincial jurisdiction under s. 92(2)?

This argument would not rest on the text of s. 92(2) alone. In the latter part of the nineteenth century, attempts were made on two occasions by provincial governments to persuade the Judicial Committee of the Privy Council that temperance legislation fell within provincial legislative jurisdiction under s. 92(9) of the *Constitution Act, 1867*. Section 92(9) authorizes provincial legislatures to legislate in relation to "Shop, Saloon, Tavern, Auctioneer, and other Licences in order to the raising of a Revenue for Provincial, Local, or Municipal Purposes." It is clear from the language of s. 92(9) that such an argument had very little to commend it, and, as one would expect, the Privy Council rejected it summarily in both cases. What is interesting for our purposes is that the reasoning given in support of rejecting it in the first of those cases,

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[106] The definition of a "direct tax" adopted by the courts is a tax that is levied against the very persons expected to bear the burden of it. For a general discussion of this distinction and the relevant jurisprudence, see Hogg, P.W., *Constitutional Law of Canada*, *supra.*, note 87, chapter 31.2.

[107] See Hogg, P.W., *ibid.*, chapter 31.7.

[108] *Ibid.*, chapter 31.11.

[109] See ss. 3 – 7 of the *Carbon Tax Act*, *supra.*, note 105.

Russell v. The Queen,[110] included the following passage: "…the power of granting licences is not assigned to the Provincial Legislatures for the purpose of regulating trade, but 'in order to the raising of a revenue for provincial, local, or municipal purposes.' The Act in question is not a fiscal law; it is not a law for raising revenue…."[111] It is clear from that passage that the Privy Council was prepared to give substantive content to language in s. 92(9) that is very similar to that found in s. 92(2). In order to fall within s. 92(9), the Privy Council effectively held, provincial legislation has to have been enacted for the purpose of raising revenue. If that is the way in which s. 92(9) has been understood, why would s. 92(2) not also be understood in that way?

Finally, there is the decision of the Privy Council in a case known as the *Alberta Bank Taxation Reference*.[112] At issue in that case was the validity of a tax imposed on banks by the Social Credit government of Alberta shortly after it had come to power in the mid-1930's. It had previously been established by the Privy Council in *Bank of Toronto v. Lambe*[113] that provincial legislatures were not barred from imposing a special kind of tax on an industry whose business activities, like those of banks, fell within federal legislative jurisdiction.[114] The mere fact that this Alberta tax had been levied solely against banks was therefore not fatal to its validity. Nevertheless, the tax was struck down. It was the view of the Privy Council that the real purpose of the tax was not to raise revenue from banks but to eliminate them from Alberta, and that the legislation imposing it was therefore, in pith and substance, banking legislation rather than taxation legislation. The clear implication of that decision is that, even if a provincial tax does raise additional revenues, that tax will not be sustained under s. 92(2) if it is characterized as having

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[110] (1882), 7 A.C. 829. The other case was *A.-G. Ontario v. A.-G. Canada (The Local Prohibition Reference)*, [1896] A.C. 348. In that case, the Privy Council relied on its prior holding in *Russell*.

[111] *Ibid.*, at p. 837.

[112] [1939] A.C. 117. The decision in that case has been considered in at least two other cases, *C.P.R. Co. v. A.-G. of Saskatchewan*, [1951]} 4 D.L.R. 21 (Sask. C.A.) and *Cosyns v. A.-G. of Canada*, (1992) 7 O.R. (3d) 641 (Div. Ct.), but in neither of those cases did it form the basis of the decision.

[113] (1887), 12 A.C. 575.

[114] Section 91(15) of the *Constitution Act, 1867*, gives Parliament exclusive jurisdiction over "Banking, Incorporation of Banks, and the Issue of Paper Money."

been enacted in relation to a matter falling within a head of power in s. 91. This suggests that the "in order to the raising of a revenue" language imposes a substantive requirement: only if the real purpose of the tax is to raise revenue will the tax qualify under s. 92(2).

In spite of the textual and doctrinal support for this argument, there is no guarantee that the courts would find it persuasive. While it is true that the Privy Council in *Russell* gave substantive content to the "raising of a revenue" language in s. 92(9), the practical consequences of that interpretation were exceedingly limited in scope. All it meant was that legislation regulating (or prohibiting) the retail trade in liquor could not be anchored in that particular head of power. It did not mean that the provincial legislatures were barred from enacting such legislation. In fact, the Privy Council held in *Hodge v. The Queen*,[115] decided within a year of *Russell*, that the provincial legislatures could regulate the retail trade in liquor under the combination of ss. 92(8), (15) and (16), and also held in the *Local Prohibition Reference*, decided in 1896, that they could prohibit that trade under either s. 92(13) or s. 92(16). By contrast, the consequences of interpreting "in order to the raising of a revenue" within the context of s. 92(2) as imposing a firm requirement that an impugned tax augment provincial coffers might well mean that provincial legislatures were barred from enacting revenue neutral taxes. That is something that, for understandable reasons, the courts might be very reluctant to do. Provided that provincially levied taxes satisfy the requirements of being "direct" and "within the province" – requirements that serve the important goal of helping to ensure that provincial legislatures are constrained in their ability to tax people to whom they are not democratically accountable - the tools by which provincial governments choose to raise the revenues they need, and the balance they strike between and amongst those tools, is a matter best left to the democratic process. It is not a matter over which the courts should have control. Moreover, a substantive reading of the language in s. 92(2) would create practical problems for the courts that they might wish to avoid. How can the courts be sure that a particular tax is in fact going to be revenue neutral? Or, putting it in slightly different terms, how revenue neutral does a tax have to be in order to fall afoul of the rule? And is a description of the tax as being

[115] (1883), 9 A.C. 117.

revenue neutral when it is first introduced by the government in the legislative assembly a requirement or just relevant evidence?

Finally, as a technical matter, the fact that the enactment of a new tax will result in other taxes being reduced by an amount equivalent to the amount raised by the new tax does not mean that the new tax is not raising revenue. It clearly is raising revenue. Were it not, there would be no reason to reduce the amount raised by the old taxes. In fact, under the new regime, all of the taxes in question will be raising revenues. It is simply that the old taxes will be raising less revenue than they formerly did.

In our view, while an argument that provincially imposed taxes that are designed to be, and are in fact, revenue neutral cannot be sustained by s. 92(2) is certainly plausible, it is likely that, if such an argument were to be advanced in a constitutional attack upon a carbon tax like that imposed by the Legislature of British Columbia, it would fail. We believe that the courts would find the weaknesses of that argument to outweigh its strengths, and moreover, that they would be right to do so.

In the result, then, it is our opinion that provincially created carbon taxes would be held to fall within the scope of s. 92(2) of the *Constitution Act, 1867*, and therefore be upheld as valid.

2. Cap-and-Trade/Intensity-Based Trading Regimes

The validity of a provincially created cap-and-trade or intensity-based trading regime would depend to a very considerable degree on the form it took, with the controlling factor being the entities to which the regime applied. If the regime were to be limited to business undertakings that the provincial legislatures have the authority to regulate *qua* businesses under any or all of s. 92(5),[116] s. 92(10),[117] s.92(13)[118] and s. 92A,[119] there is good reason to believe

[116] "The Management and Sale of the Public Lands belonging to the Province and of the Timber and Wood thereon."

[117] "Local Works and Undertakings other than such as are of the following Classes:- (a) Lines of Steam or other Ships, Railways, Canals, Telegraphs, and other Works and Undertakings connecting the Province with any other or others of the Provinces, or extending beyond the Limits of the Province: (b) Lines of Steam

that it would be upheld as valid. If, however, it were not to be so limited, and were made applicable by its terms to business undertakings that fall within federal legislative jurisdiction, there is good reason to believe that it would be held to be invalid, at least insofar as its application to those undertakings is concerned.

It is trite law that the power to regulate business activities in Canada resides presumptively with the provincial legislatures under s. 92(13) of the *Constitution Act, 1867*, which grants to those legislatures exclusive jurisdiction in respect of "Property and Civil Rights in the Province." The theory on which that law is based, which can be traced back to the decisions of the Privy Council in the early years of our existence, is that the freedom to engage in the business activity of one's choice (and to engage in that activity in the manner of one's choice) is a "civil right."[120] Hence, legislation that in any way restricts that freedom – which all legislation regulating business activities, through licensing and other regimes, will do to some extent – is presumptively legislation in relation to "civil rights." That presumption is, however, a rebuttable one, and it will be overcome by textually based grants to Parliament of legislative authority over the business activities of particular industries. Hence, it is clear that Parliament has jurisdiction to regulate the business activities of postal services (s. 91(5)), shipping companies (s. 91(10)), those engaged in

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Ships between the Province and any British or Foreign Country: (c) Such Works as, although wholly situate within the Province, are before or after their Execution declared by the Parliament of Canada to be for the general Advantage of Two or more of the Provinces."

[118] "Property and Civil Rights in the Province."

[119] This head of power, which was added to the list of provincial powers by the *Constitution Act, 1982*, is not being reproduced *verbatim* because it is a very lengthy one with numerous subsections. For our purposes, what is significant about it is that it grants to the provincial legislatures power over the development and management of non-renewable natural resources, forestry resources and electrical energy.

[120] See *A.-G. Canada v. A.-G. Alberta (The Insurance Reference)*, [1916] 1 A.C. 589, in which Lord Haldane spoke of the federal legislation there at issue, which regulated large insurance companies, as "depriv[ing] private individuals of their liberty to carry on the business of insurance" (at p. 595). Later in his judgment, he says "it must now be taken that the authority to legislate for the regulation of trade and commerce [in s. 91(2)] does not extend to the regulation of a licensing system of a particular trade in which Canadians would otherwise be free to engage in the provinces" (at p. 596).

seacoast and inland fisheries (s. 91(12)), banks (s. 91(15)), savings banks (s. 91(16)), and interprovincial transportation and communication undertakings (s. 92(10) and s. 91(29)). As a result of judicial decisions defining the scope of Parliament's POGG power, it is also now clear that Parliament has jurisdiction to regulate the business activities of those involved in the aeronautics[121] and nuclear power generation[122] industries. And as a result of judicial decisions defining the scope of s. 91(2), it is clear that Parliament has jurisdiction to regulate international and interprovincial trade as well as to legislate in respect of "general trade affecting the whole Dominion,"[123] a carefully circumscribed source of power pursuant to which Parliament has been able to legislate in the areas of competition policy[124] and trademarks.[125]

The industries that fall within provincial jurisdiction under this arrangement are numerous, and include many of the industries that emit large amounts of carbon into the atmosphere and are therefore good candidates for a cap-and-trade/intensity-based trading regime – oil and gas, manufacturing, mining, forestry, construction, intraprovincial truck and bus lines, etc. Moreover, the power of the provincial legislatures to regulate the business activities of those industries has been understood broadly by the courts. In particular, it has been held to permit them to regulate those activities for a range of different purposes – to protect consumers from fraudulent dealings, to protect the health and safety of consumers, to establish quality standards, to ensure adequate supply and to protect the economic and other interests of employees.[126] It has also been held to permit them to regulate those activities for the purpose of protecting the environment.[127] There is every reason to believe, therefore, that

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[121] *Johannesson v. Rural Municipality of West St. Paul*, [1952] 1 S.C.R. 292.

[122] *Ontario Hydro v. Ontario (Labour Relations Board)*, [1993] 3 S.C.R. 327.

[123] *Citizens Insurance Co. v. Parsons*, (1881), 7 A.C. 96.

[124] *General Motors of Canada Ltd. v. City National Leasing*, [1989] 1 S.C.R. 641.

[125] *Kirkbi AG v. Ritvik Holdings Inc*., [2005] 3 S.C.R. 302.

[126] The relevant jurisprudence is discussed in Hogg, P.W., *Constitutional Law of Canada, supra*., note 87, chapter 21, especially 21.5 – 13.

[127] This seems clearly implicit in the majority reasons of Justice LaForest in *Friends of the Oldman River Society v. Canada, supra*., note 79, in particular in his reference to provincial power over "local works and undertakings" as a source of provincial jurisdiction over environmental protection..

provincial legislation establishing a cap-and-trade/intensity-based trading regime that is limited in its scope to such undertakings would be upheld as valid.

The only reservation we have stems from the fact that the environment that such a regime would be seeking to protect is not limited to the environment of the province in which the regime operates. It is, rather, the global environment. Does that feature of such regimes render them constitutionally suspect? We think not. While the courts have shown themselves to be wary of permitting provincial legislatures to legislate in ways that create significant negative spillover effects in other provinces,[128] there is little if any reason to suspect that they would be wary of permitting them to legislate in ways that create positive spillover effects in other provinces. Moreover, there seems little reason to doubt that provincial legislatures that create such regimes do so primarily to benefit future generations of residents of the provinces for which they have responsibility. It is their own residents' future wellbeing to which such regimes are primarily directed.

Would it be open to a provincial legislature to extend the reach of a cap-and-trade/intensity-based trading regime to include industries that normally fall within federal legislative jurisdiction, such as aeronautics, international/interprovincial truck and bus lines and nuclear power generation? Given the nature of such regimes, extending their reach in this way could only be accomplished by specifically including such industries in the list of industries to which they apply. This means that companies doing business within one of the listed industries that objected to being included would have a target within the statute to attack - the specific reference to the industry in question. Such an attack would likely be analyzed by the courts on the basis of what is called the necessarily incidental doctrine. The current understanding of that doctrine[129] requires consideration of three distinct questions within the following analytical framework: (1) to what extent does the impugned part of the statute – here the inclusion in the list of industries to which the

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[128] See, e.g., *A.G. of Manitoba v. Manitoba Egg and Poultry Association (Manitoba Egg Reference)*, [1971] S.C.R. 689.

[129] This current understanding is based on the decision in *General Motors of Canada Ltd. v. City National Leasing, supra*., note 124.

cap-and-trade regime applies of the industry in question – encroach on the legislative jurisdiction of the federal order of government when that part is viewed in isolation? (2) is the rest of the statute valid? and (3) given the answer to (1), is the impugned part sufficiently integrated into the rest of the statute to profit from its validity and be considered valid itself?

We are of the view that the answer to the first of these questions would likely be that provincial legislation that imposes legally enforceable constraints on the amount of carbon which companies within a federally regulated industry in question can emit in the course of conducting their normal business activities would be held to be a very serious encroachment on federal legislative jurisdiction over that industry. In fact, there is good reason to believe that the courts would view such provincial action as an incursion into the core, or "basic, minimum and unassailable content,"[130] of federal legislative jurisdiction over the industry. That core has been defined in a series of cases dealing with the doctrine of interjurisdictional immunity[131] to include authority over labour relations and other important aspects of the management and operation of companies doing business within industries that fall within federal jurisdiction.[132] That definition seems more than broad enough to capture direct control of operational matters as important as production processes.

It is also our view that, if the first question were to be answered in that manner, the courts would almost certainly hold that the inclusion of the federally regulated industry in the list of industries to which the regime is intended to apply is unconstitutional. While there are no cases involving the necessarily incidental doctrine in which the Supreme Court in answering the first question has found that the degree of encroachment is so great as to extend to a core area of federal legislative jurisdiction, it is difficult to see how the Court in such a case could do anything other than strike the impugned part of

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[130] That language comes from Justice Beetz's reasons for judgment in *Commission de la sante et de la securite du travail v. Bell Canada*, [1988] 1 S.C.R. 749, at p. 839.

[131] See Hogg, P.W., *Constitutional Law of Canada, supra*., note 87, chapter 15(8) for a general discussion of this constitutional doctrine.

[132] *Commission du Salaire Minimum v. Bell Telephone Co. of Canada*, [1966] S.C.R. 767 and *Commission de la sante et de la securite du travail v. Bell Canada, supra.*, note 130.

the statute down. If, as the doctrine of interjurisdictional immunity requires, valid, generally worded provincial legislation cannot constitutionally be applied in contexts in which such application would result in the reach of that legislation being extended into a core area of federal legislation,[133] it cannot be open to provincial legislatures to explicitly include such contexts in a list of contexts to which their legislation is to apply. Regardless of how closely integrated into the rest of the (valid) statute the impugned part might be, the fact that that part encroached on a core area of federal jurisdiction should therefore render it invalid.

As noted above, the cap-and-trade regime proposed by the Legislature of British Columbia may be integrated into a regionally defined cap-and-trade system that will include at least one other Canadian province (Manitoba) and several of the states in the western United States. Would the fact that such a regime has that kind of regional character render it constitutionally suspect in the eyes of the courts? We do not believe that it would. While it is true, as noted above, that the regulation of international and interprovincial trade falls within exclusive federal legislative jurisdiction under s. 91(2) of the *Constitution Act, 1867*,[134] a regime of this nature merely makes it possible for the undertakings governed by the British Columbia statute to engage in the interprovincial and international trading of emission allowances if they believe that it is in their interests to do so. It is not, as it would have to be in order to be vulnerable to attack on this ground, directed at the regulation of such trading.[135]

3. Command-and-Control Regimes

The ability of provincial legislatures to regulate greenhouse gas emissions on the basis of a command-and-control approach turns on the same considerations as their ability to do so through the enactment of cap-and-trade/intensity-based trading regimes. If the

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[133] See *Canadian Western Bank v. Alberta*, 2007 SCC 22 and *British Columbia (Attorney General) v. Lafarge Canada Inc*., 2007 SCC 23 for the Supreme Court of Canada's most recent applications of this doctrine.

[134] *Citizens Insurance v. Parsons, supra*., note 123.

[135] See *Carnation Co. Ltd. v. Quebec Agricultural Marketing Board*, [1968] S.C.R. 238 and *A.-G. Manitoba v. Manitoba Egg and Poultry Association (Manitoba Egg Reference)*, [1971] S.C.R. 689.

legislation is limited in its reach to those industries that are considered to fall within provincial legislative jurisdiction, it will therefore likely be valid. If, by contrast, the legislation is also made applicable to industries that are considered to fall within federal jurisdiction, it will be vulnerable to attack, at least insofar as its application to those industries is concerned.

B. Federal Jurisdiction

We explore here the question of whether or not it is open to Parliament to regulate greenhouse gas emissions through the mechanisms of (a) a carbon tax; (b) a cap-and-trade/intensity-based trading regime; (c) a command-and-control regime; and (d) the CEA Act.

1. A Carbon Tax

Unlike the provincial legislatures, the Parliament of Canada has a very broad power to levy taxes. Section 91(3) of the *Constitution Act, 1867* authorizes it to legislate in relation to "The raising of Money by any Mode or System of Taxation." There is neither any limit on the kinds of taxes Parliament can create under this grant of authority, nor any territorial limit. The only requirements are (a) that the legislation entail "taxation" and (b) that the legislation "rais[e] … money."

We are confident that federal legislation creating a carbon tax of the kind we describe above would be upheld as valid under s. 91(3). Such legislation would both entail "taxation" and "rais[e] money." While it would be open to opponents of the tax to challenge the validity of such a tax if it were made revenue neutral – as the tax proposed by the Liberals would be - on the ground that it did not "raise money," we do not think that such a challenge would succeed, and for the same reasons we do not believe that a provincially created revenue neutral carbon tax would be vulnerable to attack on such a ground.

2. A Cap-and-Trade/Intensity-Based Trading Regime

In our analysis of the constitutionality of provincially created cap-and-trade/intensity-based trading regimes, we argued that, provided such regimes are limited in their scope to industries whose business activities fall within provincial legislative jurisdiction, such as oil and gas, mining, manufacturing and construction, they should pass constitutional muster. It therefore follows that it is our view that a federal cap-and-trade/intensity-based trading regime that is limited in scope to industries whose business activities fall within federal legislative jurisdiction, such as aeronautics, nuclear power generation and international/interprovincial truck and bus lines, would also pass constitutional muster. The more interesting and difficult question is whether a federal cap-and-trade/intensity-based trading regime that, like the plan announced by the Conservative government in 2007, reached beyond those industries, and brought into its regulatory fold provincially-regulated industries such as oil and gas, construction and manufacturing, would survive an attack on federalism grounds. It is to that question that the following analysis is devoted.

In our view, the federal government could reasonably seek to justify such legislation on the basis of one or more of the following bases: the criminal law power (s. 91(27)), the national concern branch of POGG and the national emergency branch of POGG. We do not believe that the federal government would be able to make a plausible argument on the basis of its power to regulate trade and commerce.[136] It would not be plausible to claim that such a cap-and-trade/intensity-based trading regime is "aimed at" the regulation of international and/or interprovincial trading activities – that is, the movement of goods or services across national and/or provincial boundaries - so as to bring it within the first branch of that head of power.[137] Nor, unless the regime were expanded to cover virtually every industry in the country, would it be plausible to claim that it was "aimed at" the

[136] For the contrary view, see Castrilli, J.F., "Legal Authority for Emissions Trading in Canada," *supra*., note 77.

[137] See Hogg, P.W., *Constitutional Law of Canada, supra*., note 87, chapter 20.2 for a general discussion of the jurisprudence relating to this branch of s. 91(2).

general regulation of trade throughout the Dominion so as to bring it within the second branch.[138]

We will now consider in turn each of the three possible bases we have identified.

i. Criminal Law

On the face of it, the highly regulatory character of a cap-and-trade/intensity-based trading regime dealing with greenhouse gas emission allowances would appear to preclude such a regime being upheld as "criminal law." It is true that such a regime would have offence-creating provisions to ensure that the companies to which the regime applied took seriously the obligations imposed upon them. But the Privy Council made it clear early on in our history that the mere fact that federal legislation contains offence-creating provisions is not enough to qualify it as "criminal law."[139] "Criminal law," the Privy Council told us, is about *prohibiting* socially harmful conduct, not regulating it. That understanding of the role of criminal law, and hence of the reach of s. 91(27), came to be reflected in the test that the Supreme Court of Canada eventually established for federal legislation seeking support from that head of power. That test, which remains intact today, imposes three requirements: the legislation must (a) be prohibitory; (b) provide a penalty for those who violate the prohibition; and (c) have been enacted for "a public purpose which can support it as being in relation to criminal law," with examples of such purposes being "public peace, order, security, health, morality."[140]

The reason for including s. 91(27) in this list of plausible sources of federal jurisdiction is the recent decision of the Supreme

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[138] The test for the second branch can be found in *General Motors of Canada Ltd. v. City National Leasing, supra.*, note 124. The Court held in that case that the federal *Combines Investigation Act*, R.S.C. 1970, c. C-23 satisfied that test and upheld the *Act* on that ground. That test was recently affirmed by the Court in *Kirkbi AG v. Ritvik Holdings Inc., supra.*, note 125. In that case, the Court upheld the federal *Trademarks Act*, on that ground.

[139] See *Reference re Board of Commerce Act, 1919*, [1922] 1 A.C. 191 and *Toronto Electric Commissioners v. Snider*, [1925] A.C. 396.

[140] *Reference re Validity of s. 5(a) of the Dairy Industry Act (Margarine Reference), supra*., note 97, at p. 50.

Court of Canada in *R. v. Hydro-Quebec*.[141] As noted above, the Court in that case, by a narrow 5-4 margin, upheld the toxic substances provisions of *C.E.P.A.* on the basis of s. 91(27) in spite of the highly regulatory character of those provisions. Why it was prepared to do that is not entirely clear from the judgment itself, but a number of reasons suggest themselves. One is the fact, noted by Justice LaForest in his majority reasons, that environmental protection does not lend itself to the creation of broadly defined prohibitions. As he put it, "Having regard to the particular nature and requirements of effective environmental protection legislation, I do not share my colleagues' concern that the prohibition [against releasing a toxic substance in contravention of a permit or interim ministerial order] originates in a regulation…."[142] Another is the importance the majority attached to protecting the environment. "[S]tewardship of the environment" was said to be "a major challenge of our time," "an international problem, one that requires action by governments at all levels," and "a fundamental value of our society."[143] And a third is the fact that, by upholding the impugned provisions under s. 91(27) instead of the national concern branch of POGG, the Court would avoid assigning exclusive jurisdiction over the release of toxic substances into the environment to the federal order of government.[144] As Justice LaForest put it, "…the Constitution should be so interpreted as to afford both levels of government ample means to protect the environment while maintaining the general structure of the Constitution. This is hardly consistent with an enthusiastic adoption of the 'national dimensions' doctrine."[145]

If these were the reasons the majority upheld *C.E.P.A.*'s toxic substances provisions under s. 91(27) in *Hydro-Quebec*, they could all be invoked in support of upholding a federal cap-and-trade/intensity-based trading regime under that head of power as well. But would they be viewed as strong enough reasons to do so? That is

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[141] *Supra.*, note 94. It should be noted that the 2005 Liberal Plan explicitly relied upon s. 91(27).

[142] *Ibid*., at para. 147.

[143] *Ibid*., at para. 127.

[144] It is the position of the Court that if federal legislation is upheld under the national concern branch of POGG, the "matter' of that legislation is foreclosed to the provincial legislatures. (See *R. v. Crown Zellerbach Canada Ltd., supra.*, note 82, at p. 433.)

[145] *Supra*., note 82, at para.116.

far from clear. There are differences between a cap-and-trade/intensity-based trading regime regulating greenhouse gas emissions and the regulation of toxic substances that might deter the courts from upholding the former under s. 91(27). One is that, unlike the release of toxic substances into the environment, the emission of carbon into the atmosphere cannot be said to cause the kind of direct and immediate harm that we generally associate with the use of the criminal law. Another is that a cap-and-trade/intensity-based trading regime permits companies to buy and sell the right to cause the very environmental harm at which it is aimed, and judges might have difficulty characterizing legislation with that feature – one that *C.E.P.A.*'s toxic substances provisions lack - as criminal law. Moreover, it would be difficult as a matter of both logic and principle for the courts to label a federal cap-and-trade/intensity-based trading regime "prohibitory" – as they would have to do in order to uphold it on the basis of s. 91(27) - while at the same time labeling very similar provincial regimes "regulatory" – as they would have to do in order to uphold them on the basis of ss. 92(5), 92(10), 92(13 and 92A. Finally, there could well be a concern on the part of the courts that, if they were to uphold a federal cap-and-trade/intensity-based trading regime under s. 91(27), there would be little if any practical significance left in the requirement that federal legislation must be "prohibitory" in character in order to qualify as "criminal law," and, as a consequence, very little in the way of meaningful limits on the scope of federal jurisdiction under that head of power.

For the reasons just given, we think the courts would be unlikely to hold that a federal cap-and-trade/intensity-based trading regime satisfied the requirement of being "prohibitory" in nature, with the result that such a regime would be held to fall outside the scope of s. 91(27). However, we should add that, if we were to prove wrong about that, it is our view that the courts would have little difficulty holding that such a regime satisfied the other two requirements for "criminal law," and that it could therefore be sustained on the basis of that head of power. Companies subject to the regime would obviously face penalties for violating the terms of their permits, and the Supreme Court has made it clear that protecting the

environment qualifies as "a public purpose … sufficient to support a criminal prohibition."[146]

ii. National Concern Branch of POGG

The current understanding of Parliament's power to legislate for the "Peace, Order and Good Government of Canada" – commonly referred to as POGG – is that it has three distinct branches: (1) the national emergency branch; (2) the national concern branch; and (3) the gap branch.[147] The nature and content of the first two of these branches will be explained in this and the following sections of this paper. The gap branch of POGG captures "matters" over which the Parliament of Canada has authority to legislate because they cannot plausibly be assigned to any of the enumerated classes of subject in sections 91 – 95 of the *Constitution Act, 1867*. There are, in fact, very few such "matters" – the incorporation of companies with other than provincial objects[148] and the creation of an official languages regime within the federal order of government[149] are examples.

The origins of the national concern branch lie in two passages in the reasons for judgment of Lord Watson in the *Local Prohibition Reference*.[150] Those passages read as follows:

> "… the exercise of legislative power by the Parliament of Canada, in regard to all matters not enumerated in s. 91, ought to be strictly confined to such matters as are unquestionably of Canadian interest and importance, and ought not to trench upon provincial legislation with respect to any of the classes of subjects enumerated in s. 92. To attach any other construction to the general power which, in supplement of its enumerated powers, is conferred upon the Parliament of Canada by s. 91, would, in their Lordships' opinion, not only be contrary to

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[146] *R. v. Hydro-Quebec, supra*., note 94, per LaForest, J. at para. 123. The dissenting judges in that case agreed with that view.

[147] This understanding is reflected in Professor Hogg's discussion of POGG in chapter 17 of his textbook, *Constitutional Law of Canada*, *supra*., note 104.

[148] *Citizens Insurance Co, v. Parsons*, (1881), 7 A.C. 96 and *John Deere Plow Co. v. Wharton*, [1915] A.C. 330.

[149] *Jones v. A.-G. New Brunswick*, [1975] 2 S.C.R. 182.

[150] *Supra*., note 110.

> the intendment of the Act, but would practically destroy the autonomy of the provinces."[151]
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> …
>
> "Their Lordships do not doubt that some matters, in their origin local and provincial, might attain such dimensions as to affect the body politic of the Dominion, and to justify the Canadian Parliament in passing laws for their regulation or abolition in the interest of the Dominion. But great caution must be observed in distinguishing between that which is local or provincial, and therefore within the jurisdiction of the provincial legislatures, and that which has ceased to be merely local or provincial, and has become matter of national concern, in such sense as to bring it within the jurisdiction of the Parliament of Canada."[152]

These passages make it clear that, unlike the gap branch of POGG, the national concern branch provides Parliament with the authority to legislate in relation to "matters" that *do* have a connection with one or more of the classes of subjects assigned to the provincial legislatures. They also make it clear that, in the view of the Privy Council, the courts should be loath to uphold legislation under POGG in the face of such a connection. Only in relation to "such matters as are unquestionably of Canadian interest and importance" should they be willing to do so; otherwise, the interest in protecting provincial autonomy should hold sway.

The current understanding of the national concern doctrine reflects a similar reluctance to permit Parliament to make frequent use of this branch of POGG. That understanding stipulates that, in order for "a matter to qualify as a matter of national concern … it must have a singleness, distinctiveness and indivisibility that clearly distinguishes it from matters of provincial concern and a scale of impact on provincial jurisdiction that is reconcilable with the fundamental distribution of legislative power under the Constitution."[153] It also suggests that a relevant consideration in

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[151] *Ibid*., at pp. 360-1.
[152] *Ibid*., at p. 361.
[153] *R. v. Crown Zellerbach, supra*., note 82, at p. 432.

making such an assessment is "the effect on extra-provincial interests of a provincial failure to deal effectively with the control or regulation of the intra-provincial aspects of the matter."[154] The implication of that suggestion is that it will only be when the courts are satisfied that such a "provincial failure" would have significant harmful effects on extra-provincial interests that they should be willing to hold that a matter qualifies as a matter of truly national concern.

Another important feature of the current understanding of the national concern doctrine has already been noted. It is that the consequence of the courts holding that a particular matter is a matter of national concern is not simply that Parliament has the authority to legislate in relation to it, but also that Parliament's authority to do so is exclusive. That matter, "including its provincial aspects,"[155] is removed in its entirety from provincial legislative jurisdiction. This feature of the doctrine can only add to the courts' reluctance to use the national concern branch as a basis for upholding federal legislation, particularly in relation to social and economic issues in which the provinces can be said to have a strong and legitimate interest.[156]

Would the federal government succeed in having a cap-and-trade/intensity-based trading regime of the kind we are considering – one that applied to all of the industries responsible for emitting large amounts of carbon into the atmosphere, not just those that, like aeronautics and international/interprovincial truck and bus lines, are understood to fall within federal legislative jurisdiction - upheld under POGG on the basis that it dealt with a matter of national concern? The answer to that question would depend at least in part on the manner in which the "matter" of such a regime was formulated.

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[154] *Ibid*.

[155] Justice LeDain, speaking on behalf of the majority in *Crown Zellerbach*, put this feature of the current understanding in the following terms, "where a matter falls within the national concern doctrine …, as distinct from the emergency doctrine, Parliament has exclusive jurisdiction of a plenary nature to legislate in relation to that matter, including its intra-provincial aspects." *supra*., note 82, at p. 433.

[156] For an excellent example of this occurring, see the majority reasons of Justice LaForest in *R. v. Hydro-Quebec, supra.*, note 94, discussed above in the text accompanying notes 144-145.

Some formulations might serve, at least superficially, to distinguish the subject matter of the regime from matters of provincial concern more effectively than others, and counsel for the federal government would obviously try to develop a formulation that achieved that goal. But there are clearly limits to how creative one can be in the drafting exercise. The proffered "matter" cannot be drafted too broadly, because the more broadly it is cast, the greater the threat to provincial autonomy it would be seen to pose, and the less likely the courts would be to hold that it satisfied the test.[157] It must also accurately reflect the content of the legislation. Bearing these considerations in mind, we presume that it would be formulated in terms of something like "protecting against the harmful effects of global warming by reducing greenhouse gas emissions on the part of Canadian industry."

In our view, it is unlikely that the courts would find that such a matter qualified as a matter of national concern.[158] The fact that the federal legislation would have been enacted in furtherance of Canada's obligations under the Kyoto Protocol, and deals with a matter of "predominantly extra-provincial character and implications," would likely count in favour of such a finding. So too would the fact that the failure of provincial governments to regulate greenhouse gas emissions effectively could be said to result in harmful extra-provincial effects. How much weight the latter factor would be assigned, however, is an open question. The challenger would certainly be in a position to argue that it should be given minimal weight. That argument would be grounded in the fact that, by any fair measure, those extra-provincial effects would be very indirect and of little overall significance, given that Canada as a whole is responsible for approximately two percent of the total greenhouse gas emissions in the world and, moreover, that greenhouse gas emissions are one of a number of human and other causes of global warming. On the other side of the ledger is the fact

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[157] See *Reference re Anti-Inflation Act*, [1976] 2 S.C.R. 373 for an example of a case in which the proffered "matter" – "the containment and reduction of inflation" - was found by the majority to be too broadly defined to pass constitutional muster under the national concern branch.

[158] Rolfe, C., "Turning Down the Heat: Emissions Trading and Canadian Implementation of the Kyoto Protocol," *supra.*, note 78 and Barton, P., "Economic Instruments and the Kyoto Protocol: Can Parliament Implement Emissions Trading Without Provincial Co-operation?" *supra.*, note 78, conclude that the national concern branch of POGG could sustain such a federal regime.

that the "matter" of the kind of regime we are contemplating could very plausibly be said to lack the required "singleness, distinctiveness and indivisibility that clearly distinguishes it from matters of provincial concern." It would be very easy for the courts to find that that "matter" is not a single or indivisible "matter" at all – it is simply a combination of a federal "matter" - "the regulation of greenhouse gas emissions by federally regulated undertakings" and a provincial "matter" - "the regulation of greenhouse gas emissions by provincially regulated undertakings." Also on the negative side of the ledger would be "the scale of impact on provincial jurisdiction" of allowing Parliament to enact a comprehensive cap-and-trade regime for the entire country. That impact would almost certainly be seen by the courts to be extremely high, particularly for provinces like Alberta. Finally, and perhaps most importantly, there is the fact that provincial legislatures would be precluded from regulating greenhouse gas emissions by industries such as oil and gas, manufacturing and construction if the courts were to uphold a comprehensive federal cap-and-trade regime on the basis of the national concern doctrine. That, we believe, is not a consequence upon which our courts would look at all favourably.

iii. National Emergency Branch of POGG

The national emergency branch of POGG has its origins in the judgments of Lord Haldane in the early part of the 20th century. He was a strong believer in the need to restrict the scope of federal legislative jurisdiction in order to protect provincial autonomy, and that belief led him to construe the POGG power even more narrowly than had Lord Watson in the *Local Prohibition Reference*. It was his position that Parliament could only make use of POGG in "exceptional" circumstances, such as "war or famine," when the nation as a whole was truly "imperilled"[159] and legislative intervention by the federal order of government was required to save it from disaster. That position was rejected in subsequent cases,[160] but the notion that Parliament should be able to legislate in times of national emergency has remained part of the law, and has given rise

[159] *Reference re Board of Commerce Act, 1919, supra*., note 139, at p. 200.

[160] An important decision in this regard was that of the Privy Council in *A.-G. Ontario v. Canada Temperance Federation*, [1946] A.C. 193.

to the existence of what we now refer to as the national emergency branch of POGG.

The jurisprudence relating to this branch of POGG, in particular the decision of the Supreme Court of Canada in *Reference re Anti-Inflation Act*,[161] has generated a body of doctrine upon which the courts would be expected to rely if the federal government sought to invoke it in support of a comprehensive cap-and-trade/intensity-based trading regime. That body of doctrine can in our view be summarized as follows: (1) the federal government can rely on the emergency branch both to respond to existing emergencies and to prevent new emergencies from arising;[162] (2) emergencies for this purpose are not limited to those identified by Lord Haldane in his judgments, but can include economic emergencies, such as a high rate of inflation;[163] (3) the courts should be loath to second-guess a decision by the federal government that an emergency exists or is threatened, and need only be satisfied that the government had a "rational basis" for making such a decision;[164] (4) the emergency branch can only be invoked to sustain legislation of temporary duration;[165] (5) the legislation should indicate, in a preamble or otherwise, that it has been enacted for the purpose of dealing at least with "a serious national condition"[166] if not a national emergency; and (6) unlike in the case of the national concern branch, upholding federal legislation on the basis of the national emergency branch does not preclude the provincial legislatures from legislating in their own ways to deal with the emergency in question (assuming they can do

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[161] *Reference re Anti-Inflation Act, supra*., note 157.

[162] *A.-G. Ontario v. Canada Temperance Federation, supra*., note 160, and *Reference re Anti-Inflation Act*, *supra.*, note 157.

[163] *Reference re Anti-Inflation Act, supra*., note 157.

[164] *Fort Frances Pulp and Paper Co. v. Manitoba Free Press*, [1923] A.C. 695 and *Reference re Anti-Inflation Act, supra*., note 157.

[165] *A.-G. Canada v. A.-G. Ontario (The Employment and Social Insurance Act)*, [1937] A.C. 355, *A.-G. Ontario v. Canada Temperance Federation, supra.*, note 160 and *Reference re Anti-Inflation Act, supra*., note 157.

[166] This can be said to be implicit in the reasons for judgment of the majority in *Reference re Anti-Inflation Act, supra.*, note 157, from which these words were taken (at p. 422). Justice Beetz, in his dissenting reasons in that case, took the position that the indication that Parliament was relying on the emergency branch in support of the impugned legislation had to be "unmistakable" (at p. 463), a standard that in his view had not been met in that case.

so in a manner that respects the limits on provincial legislative authority under s. 92).[167]

In our view, there is good reason to believe that courts applying this body of doctrine could well uphold a comprehensive federal cap-and-trade regime under the emergency branch of POGG. The fact that the doctrine permits Parliament to act in anticipation of a new emergency arising would serve federal interests in a very direct way, and there seems little reason to doubt that an environmental disaster of the kind that global climate change portends would be held to qualify as an emergency for this purpose. The posture of judicial restraint that the doctrine calls for in evaluating the need for legislative action would also serve federal interests well. The requirement of temporary duration is one that can be met by careful drafting, as can the need for appropriate signaling. Finally, the fact that upholding such a regime on the basis of this branch would leave it open to the provincial legislatures to take whatever steps they consider advisable to reduce greenhouse gas emissions would make it a much more attractive option to the courts than the national concern branch.

It will have been noted that the previous paragraph referred only to a cap-and-trade regime, rather than, as in all of our preceding analyses, to both a cap-and-trade regime and an intensity-based trading regime. The omission of a reference to the latter was deliberate. Even with a posture of judicial restraint, we think it unlikely that the courts would consider a regime that, like an intensity-based trading regime, permitted greenhouse gas emissions to increase over time to constitute a genuine attempt by Parliament to respond to a pending national disaster. It is only the cap-and-trade option that in our view could plausibly be defended on the basis of the national emergency branch of POGG.

Any suggestion that the federal government was considering the use of the emergency branch would undoubtedly result in strong opposition from the provincial governments, who would portray such an initiative as a direct and profound assault on their ability to devise and implement policies that they consider to be appropriate to their

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[167] See the passage from Justice LeDain's reasons for judgment in *Crown Zellerbach, supra*., note 82, quoted above in note 155.

respective economies and populations. However, the federal government could minimize the sting of that opposition by making it clear that the federal government would only pursue such an initiative if the provincial legislatures did not take what it considered to be strong enough action over the course of a prescribed time period. It could also draft its legislation in such a way as to make its implementation contingent on that condition being met.

3. A Command-and-Control Regime

The ability of Parliament under s. 91 to enact a command-and-control regime designed to reduce greenhouse gas emissions would in our view turn on the same considerations as its ability to enact a cap-and-trade regime. If a federal command-and-control regime were limited in its scope to industries whose business activities fall within federal legislative jurisdiction, it would almost certainly be valid. Only if its reach extended into what we consider to be the provincial sphere – oil and gas, manufacturing, construction and so on – would its validity be open to attack.

Such an extended command-and-control regime could plausibly be defended on the basis of the same sources of federal legislative jurisdiction as an extended cap-and-trade/intensity-based trading regime – s. 91(27), the national concern branch of POGG and the national emergency branch of POGG. In our view, the analysis we provided above of the viability of the latter two sources of jurisdiction in the context of a federal cap-and-trade/intensity-based trading regime would apply equally well in the context of a command-and-control regime. Hence, we believe that such a regime would likely not be upheld under the national concern branch of POGG, but that it could well be upheld under the national emergency branch. Insofar as s. 91(27) is concerned, our view remains that the courts would be unlikely to sustain such a regime on that basis. However, part of the analysis we provided above of the viability of this source of jurisdiction in the context of a cap-and-trade/intensity-based trading regime would have no relevance in this other context. Unlike a cap-and-trade/intensity-based trading regime, a command-and-control regime does not permit the companies governed by it to sell the right to cause the very environmental harm at which the regime is aimed. That difference would in our view reduce somewhat the strength of

the arguments against permitting Parliament to rely on the criminal law power. It would not, however, reduce their strength enough to persuade the courts to uphold such a regime as criminal law.

4. Canadian Environmental Assessment Act

The final regulatory option to be considered is the use of the *C.E.A.A.* to require federal authorities to consider the greenhouse gas implications of new projects governed by that statute before approving them. It will be recalled that that statute calls for environmental assessments in respect of projects that a federal authority is itself proposing, that a federal authority intends to support financially, that involves the sale or lease of federal lands or that implicates an area of federal concern identified by regulation.[168] It will also be recalled that, in making such assessments, review panels are required to consider "any change that the project may cause in the environment," with "environment" to be understood as encompassing "…air, including all layers of the atmosphere."[169]

In our view, there is every reason to believe that this option would, if challenged, be upheld as constitutionally valid. The Supreme Court of Canada in *Friends of the Oldman River Society v. Canada*[170] made it clear that it is open to Parliament to require that the environmental implications of projects that engage areas of federal concern be considered before they are approved. The Court also held that, in assessing those implications, the reviewing bodies are entitled to take into account all of the possible environmental effects of such projects. In the course of his majority reasons for judgment in that case, Justice LaForest considered the example of a project involving the construction of a new interprovincial railway. In his view, a panel asked to assess the environmental implications of such a project would be entitled to take into account the impact of the new line on "ecologically sensitive habitats such as wetlands and forests," potential hazards to "the health and safety of nearby communities if dangerous commodities are to be carried on the line," and the possible "economic benefit to those communities through job creation and the multiplier effect that will have on the local

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[168] *Canadian Environmental Assessment Act*, s. 5(1).
[169] *Ibid*., ss. 2(1) and 16(1).
[170] *Supra*., note 79.

economy."[171] In fact, he said, not to permit the panel to consider such matters "would lead to the most astonishing results, and it defies reason to assert that Parliament is constitutionally barred from weighing the broad environmental repercussions, including socio-economic concerns, when legislating with respect to decisions of this nature."[172]

Was it important to Justice LaForest's reasoning in this regard that interprovincial railways are federal undertakings under s. 92(10(a) and therefore, *qua* undertakings, within exclusive federal jurisdiction? Would he have taken a more restrained view of the permissible scope of a federally-mandated environmental assessment if the project in question had been one that fell *prima facie* within provincial jurisdiction – like the dam in *Oldman River* itself – with the federal interest being limited to the impact of that project on an area of federal jurisdiction – like the navigability of the Oldman River? We believe not.[173] Justice LaForest did not draw any such distinction himself, as he could well have done given the nature of the case he had before him. Moreover, he referred with approval to an Australian case, *Murphyores Incorporated Pty. Ltd. v. Commonwealth of Australia,* in which the High Court had upheld the constitutionality of an inquiry under Commonwealth legislation into the environmental impact of the mining of particular substances by a company seeking permission to export those substances, even though the mining activity was acknowledged to be "predominantly a state interest." The decision in that case was used to exemplify the proposition that, even in a federal state,

> "…[i]n legislating regarding a subject, it is sufficient that the legislative body legislate on that subject. The practical purpose that inspires the legislation and the implications that body must consider in making its decision are another thing. Absent a colourable purpose or a lack of

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[171] *Ibid*., at p. 66.

[172] *Ibid*.

[173] For the contrary view, see S.A. Kennett, "Federal Environmental Jurisdiction after *Oldman*," (1993), 38 McGill L.J. 180. We note, however, that Meinhard Doelle reaches the same conclusion we do on this issue in his recent book, *The Federal Environmental Assessment Process: A Guide and Critique* (LexisNexis Canada Inc. 2008), at 67 – 71.

> *bona fides*, these considerations will not detract from the fundamental nature of the legislation."

We conclude, therefore, that it is open to the agencies of the federal government to include greenhouse gas emissions in the list of environmental concerns to be considered by panels constituted under the *C.E.A.A.*.

C. Federal Paramountcy

We consider here the question of whether or not provincial legislation designed to reduce greenhouse gas emissions would be held to be inoperative under the federal paramountcy doctrine in the face of federal legislation enacted for the same purpose. That doctrine applies whenever valid provincial legislation is found to "conflict" with valid federal legislation. The current understanding of the term "conflict" on the part of the Supreme Court of Canada can be summarized as follows: provincial legislation will only be held to be in conflict with federal legislation if (a) it is impossible for those to whom the two enactments purportedly apply to comply with both; (b) it is impossible for the courts or other state decision-makers to give simultaneous effect to both enactments; and (c) application of the provincial enactment would frustrate the purpose of the federal.[174]

Whether or not a particular provincial statute will be held to conflict with a particular federal statute depends on the precise terms of both. Confident predictions about the fate of particular provincial statutes are therefore generally very difficult if not impossible to make before all of those terms are known. However, we can say with a fair degree of confidence that, given the Supreme Court's current understanding of "conflict," we think it unlikely that provincial legislation of the kinds that we are examining in this paper would be rendered inoperative by federal legislation of the kinds we are considering. That is particularly true of provincial carbon taxes. But it is also true of the cap-and-trade/intensity-based trading regimes, even if they impose tighter controls than similar federal regimes. The purpose of the two regimes will be fundamentally the same, and the

[174] See Elliot, R.M., "Safeguarding Provincial Autonomy from the Supreme Court's New Paramountcy Doctrine: A Constructive Role for the Intention to Cover the Field Test?" *supra*., note 95.

Supreme Court of Canada has on numerous occasions let stand provincial legislation that went further than federal in regulating harmful conduct in such circumstances.[175] Moreover, in *Hydro-Quebec*, the Court expressed a strong preference for permitting both orders of government to legislate to protect the environment. The majority's choice of s. 91(27) as the head of power upon which to uphold the toxic substances provisions of the *C.E.P.A*. was based in part on their desire to leave room for the provincial legislatures to "exercis[e] their extensive powers under s. 92 to regulate and control the pollution of the environment either independently or to supplement federal action."[176] It would clearly be inconsistent with that preference for the courts to use the paramountcy doctrine liberally and hold provincial environmental protection legislation inoperative if provincial legislatures accept the invitation the Court has given them.

D. Summary

In summary, then, it is our view that both orders of government have a relatively broad array of options available to them under the Constitution to deal with greenhouse gas emissions. The provincial legislatures can levy a carbon tax on consumers. They can also impose a range of different kinds of regulatory regimes on the main industrial emitters of greenhouse gases within their respective boundaries, provided only that the regimes are limited in their application to industries that are understood to fall within provincial legislative jurisdiction. Parliament, too, can levy a carbon tax. And it, too, can impose a range of different kinds of regulatory regimes on industrial emitters. Its authority to create such regimes is clearest if the regimes are limited in scope to those industries that are understood to fall within federal legislative jurisdiction. It is possible, given the extent and nature of the problem, that, using the national emergency branch of POGG, Parliament could impose such a regime on all industrial emitters. And, finally, it is open to the federal government to use the provisions of the *C.E.A.A.* to assist in its efforts to control climate change.

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[175] See the discussion of these cases in Hogg, P., *supra.,* note 87 chapter 16(4)(a).

[176] *Supra*., note 94, at para.131.

What that means is that the choices that our governments make in this area will – or at least should - be based primarily on considerations of policy. And it is to precisely those considerations that we now turn.

IV. The Policy Dimension

Apart from the constitutional considerations, there are sharp policy differences that render some options considerably better than others. The effectiveness in reducing greenhouse gas emissions is very much tied into the ease with which the regulatory options can be incorporated into Canada's regulatory infrastructure, and it is here where the options diverge. A discussion of the main regulatory options outlined in Section II.A. follows.

A. Canadian Environmental Assessment Act

If a federal government were to score political points by undertaking some climate change action, there is no lower-hanging fruit than the use of the Canadian Environmental Assessment Act. The use of the environmental assessment process, a common one throughout the world,[177] is one that other countries have used to challenge greenhouse gas-emitting projects or policies. In the U.S., a number of cases[178] have involved administrative decisions with greenhouse gas implications. For example, in *Los Angeles v. NHTSA*, the city of Los Angeles challenged a decision by the U.S. National Highway and Transportation Safety Agency to loosen vehicle fuel efficiency standards by as little as one mile per gallon, arguing that this would lead to greater gasoline consumption, more greenhouse gas emissions, and the attendant increased danger of global climate

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[177] The environmental assessment process first implemented by the U.S. National Environmental Policy Act in 1970, 42 U.S.C. §§ 4331 *et seq*. (1970), has been copied by at least twenty-five U.S. states and eighty countries. Council on Environmental Quality, The National Environmental Policy Act: A Study of Its Effectiveness After Twenty-Five Years 3 (1997); available online at http://www.nepa.gov/nepa/nepa25fn.pdf.

[178] *Los Angeles v. NHTSA,* 912 F.2d 478 (D.C. Cir. 1990), overruled in part *by Florida Audubon Society v. Bentsen,* 94 F.3d 658 (D.C. Cir. 1996); *Friends of the Earth v. Robert Mosbacher, Jr.,* No. 02-4106 (N.D. Cal. 2007); *Border Power Plant Working Group v. Dept. of Energy,* 260 F. Supp. 2d 997 (S.D. Cal. 2003); *NRDC v. Abraham,* 355 F.3d 179 (2d Cir. 2004).

change. In each of the cases, the administrative agency did not prepare an "Environmental Impact Statement" under the National Environmental Policy Act,[179] which is required unless the agency makes a preliminary "Environmental Assessment" that the project will have no significant impact.[180] All of these cases challenged the agency findings that there would be no significant impact. While the results have been mixed, no court has questioned the appropriateness of a fairly detailed evaluation of the greenhouse gas impacts of the projects or administrative actions.

In Australia, a similar cluster of cases involving the development of coal mines has arisen, in which plaintiffs sought to use the environmental assessment process to force consideration of greenhouse gas emissions.[181] The suits were against administrative review panels that had considered applications to develop coal mines to keep coal-fired power plants in operation, and all of which failed to consider the greenhouse gas emission impact of the proposed mines. Plaintiffs were successful in forcing an administrative consideration of greenhouse gas emissions in two of the three. In New Zealand, as well, a number of cases have arisen involving the failure to consider net greenhouse gas effects in *refusing* applications for wind farms.[182] Also, in *Greenpeace New Zealand Incorporated v. Northland Regional Council and Mighty River Power Limited*,[183] the High Court of New Zealand held that an administrative agency was *empowered* to consider greenhouse gas emissions in considering whether to grant an application for a coal-fired power plant.

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[179] 42 U.S.C. §§ 4321 to 4370f.

[180] This is the standard under the National Environmental Policy Act, 40 C.F.R. §§ 1508.8, 1508.13.

[181] *Australian Conservation Foundation v. Latrobe City Council,* 140 LGERA 100 (2004); *Gray v. The Minister for Planning*, (2006) NSWLEC 720; *Wildlife Preservation Society of Queensland v. Minister of Environment and Heritage* (2006) FCA 736, 2006 WL 1644868.

[182] *Genesis Power Limited v. Franklin District Council,* (2005) NZRMA 541; *Meridian Energy Ltd. and Others v. Wellington City Council,* (2007) No. W31/07 (Environment Ct.); *Environmental Defense Society v. Auckland Regional Council and Contact Energy Limited,* (2002) 11 NZRMA 492; *Environmental Defense Society and Taranaki Energy Watch v. Taranaki Regional Council and Stratford Power Limited,* (2002) No. A184/02 (Environment Ct.).

[183] (2006) NZHC 1212.

The idea of using environmental assessment to consider greenhouse gas effects is not new to Canada, but the practice has been spotty. A 2000 report published by the Canadian Environmental Assessment Agency ("CEA Agency") concluded that "[t]he extent to which climate change was factored into each environmental assessment varies considerably," and that "a gap exists between climate change science and its application to the EA community."[184]

As part two of this environmental assessment project, the CEA Agency published a guidance document for project reviewers, entitled *Climate Change and Environmental Assessment, Part 2: Climate Change Guidance for Environmental Assessments,*[185] but it is a bit unclear how this could assist project reviewers. The report is a competent review of the literature for the time in which it was written – 2000 – but it seems to propose that environmental assessments utilize climate models used to assess global climate conditions. These models have been used by the Intergovernmental Panel on Climate Change[186] to make global projections of climate, and are the best tools available to assess large, global impacts, but they are unhelpful in assessing the impacts of a single project. Even huge greenhouse gas-emitting projects, when assessed with the tools that climatologists have been using to make rough global predictions, will appear to have a negligible effect on global conditions. The tools described in this document are far too large to answer smaller questions.

The CEA Agency has also published, with provincial and territorial agencies, a general guidance document for incorporating climate change into all environmental assessments, not just the CEA

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[184] Canadian Environmental Assessment Agency, Climate Change and Environmental Assessment, Part 1: Review of Climate Change Considerations in Selected Past Environmental Assessments (2000), abstract online http://www.acee-ceaa.gc.ca/015/001/005/abstract_e.htm.

[185] Canadian Environmental Assessment Agency, Climate Change and Environmental Assessment, Part 2: Climate Change Guidance for Environmental Assessments (2000) available online at http://www.ceaa.gc.ca/015/001/004/index_e.htm.

[186] The IPCC is a UN body of scientists charged with making a number of scientific findings and recommendations to world policymakers with respect to global climate change. http://www.ipcc.ch/

Act.[187] Perhaps its genesis as a cross-jurisdictional and cooperative effort necessitates its being modest and general; the document states that it is intended as "general guidance, to be considered at the discretion of jurisdictions and regulatory authorities,"[188] and that "[t]he consideration of climate change in environmental assessments is not intended to impose any mitigation obligations over and above the obligations that will be imposed through the implementation of the general climate change policies."[189] Guidance documents published by the CEA Agency have received very little deference from agencies or courts anyway.[190]

As a formal matter, then, there is little in the way of procedural or substantive requirements that the environmental assessment process include consideration of the greenhouse gas effects of a project. This does not mean that greenhouse gas considerations are never taken into account under the CEA Act. In a Joint Panel Review involving the National Energy Board ("NEB") for construction of a gas pipeline in British Columbia, the Panel undertook a very brief discussion of the greenhouse gas effects of the pipeline – two pages out of 229 for the entire report.[191] Construction of the gas pipeline would emit 11,526 tonnes of CO_2-eq, less than 0.02% of British Columbia's total, and a tiny fraction of Canada's emissions. The Panel noted that the emissions were "minor in comparison to overall emissions on Vancouver Island," and that [on] a global scale, any change in climate or the environment caused by GHG emissions from the Project could not be defined, measured or described.[192] The Panel also complained that "at the present time, there are no defined criteria to measure significance in relation to

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[187] Canadian Environmental Assessment Agency, "Incorporating Climate Change Considerations in Environmental Assessment: General Guidance for Practitioners (2003), online at http://www.acee.gc.ca/012/014/climatechange_e.pdf.

[188] *Ibid.* at 1.

[189] *Ibid.* at 2-3.

[190] *See, e.g, Friends of the West Country Assn. v. Canada (Minister of Fisheries & Oceans),* 31 C.E.L.R. (N.S.) 239, 248 N.R. 25, 169 F.T.R. 298 (note), [2000] 2 F.C. 263, para. 22 ("I do not find the independent utility principle or the portions of the Guide which may reflect the independent utility principle helpful for the purpose of interpreting subsection 15(3) of the *CEAA*…," Rothstein, J.)

[191] Joint Review Panel Report, GSX Canada Pipeline Project (2003), available online at http://www.ceaa-acee.gc.ca/010/0001/0001/0004/0002/report_e.pdf.

[192] Id at 57.

GHG when considered in an environmental assessment. . . . Had there been detailed policies or regulations for targets in place, the Panel could have evaluated GHG emissions against these."[193] So how is a panel to meet its mandate under sections 20 and 37 of the CEA Act, to determine whether it is "likely that the project will result in significant adverse environmental effects"?[194]

In the absence of any federal or provincial guidance on how to evaluate the environmental effects of greenhouse gas emissions, the Panel laid the project against the backdrop of federal and provincial initiatives to reduce greenhouse gases, and assessed whether the pipeline would prejudice the ability of Canada to meet its Kyoto commitments.[195] It concluded that it would not:

> [N]ew natural gas pipeline and energy generation projects have been factored into the outlook. Because such developments have been incorporated in the outlook, the GSX project should not compromise Canada's ability to reach our Kyoto target.[196]

In other words, the Panel concluded that the pipeline was consistent with the then-Liberal federal government plan for how Canada would meet its Kyoto Protocol commitment. The Panel evaluated the significance of the environmental effects not by any empirical determination, but by evaluating whether the greenhouse gases were anticipated by governmental greenhouse gas reduction plans.

Concerning another project, in *Pembina Institute v. Canada (Attorney General)*,[197] the court held that, in conducting a joint panel review under the CEA Act, the panel failed to address adequately the environmental effects of the greenhouse gas emissions resulting from the proposed Kearl Oil Sands project, one that would emit an average of 3.7 Mt of CO_2 every year over its 5-year life, accounting for about 0.5% of Canada's annual emissions and 1.6% of Alberta's annual

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193 Ibid at 58.
194 Canadian Environmental Assessment Act, §§ 20, 37.
195 Ibid.
196 Ibid at 58.
197 [2008] F.C.J. No. 324.

emissions.[198] The court held that the panel erred in not "explain[ing] in a general way why the potential environmental effects, either with or without the implementation of mitigation measures, will be insignificant,"[199] and failing to provide a "clear and cogent articulation of the reasons behind the Panel's conclusion."[200] The court remitted the matter back to the Panel for the sole purpose of stating the bases for its conclusion that the environmental impacts would be insignificant.

The Panel responded, in an amendment:

> "[T]here was very little evidence before the Joint Panel to suggest that this release will result in significant adverse environmental effect. To the contrary, it was the evidence of [Alberta Environment] that it may require Imperial to reach its stated GHG intensity target of 40 kg of CO_{2e} per barrel in any EPEA approval granted for the Project. The Joint Panel finds that it must give [Alberta Environment]'s endorsement of the target significant weight in its consideration of the adverse environmental effects of the Project given [Alberta Environment]'s role as the provincial agency responsible for establishing, monitoring and enforcing emission standards."[201]

Like the Joint Panel Review of the British Columbia gas pipeline, the Kearl Oil Sands Panel looked to regulatory programs in place and decided that the project was in keeping with or accounted for by existing regulatory programs. Lacking any guidance as to whether projected greenhouse gas emissions were "likely to result in a significant adverse environmental effect," the panel essentially deferred to governmental agencies that are apparently working on the problem.

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[198] The reference year used was 2005. See tables referenced in *supra,* notes 5 and 11.

[199] Ibid, at para. 73.

[200] Ibid, at para. 78.

[201] Joint Panel Report, Kearl Oil Sands Project, Addendum to EUB Decision 2007-013, Additional rationale for the joint review panel's conclusion on air emissions, May 6, 2008; available online at http://www.ceaa.gc.ca/050/DocHTMLContainer_e.cfm?DocumentID=26766.

One can be forgiven for struggling with the determination of the significance of a large, project-specific increase in greenhouse gas emissions in a legal void. Making that determination by reference to a regulatory backdrop seems like a reasonable alternative to throwing up one's hands and concluding that the greenhouse gas emissions of any single project will have no significant effect in the global context. The problem is that this approach has no basis in law. Under the CEA Act, the critical determination is whether a project is "likely to have a significant adverse environmental effect"[202] ("SAEE"). Such an inquiry must focus on the environmental effects themselves, not on whether the project is in keeping with a provincial or federal agency's grand plan for reducing greenhouse gas emissions. In fact, environmental assessment is in part meant to act as a check on agency discretion, bringing to light environmental information that would otherwise be embarrassing or unfavourable to project development.[203] It would thus be ironic to use governmental policy as the reference point for determining what is a SAEE. Moreover, greenhouse gas reduction plans including Canada's and Alberta's do not and could not purport to have any measurable effect on the concentration of global greenhouse gases in the future. These initiatives only attempt, as they could only possibly attempt, to constitute Canada's and Alberta's part in reducing greenhouse gases globally.

Lurking in the background is the much more difficult question of whether the CEA Act, as currently constituted, can address climate change at all. If, as we argue, the CEA Act does not permit a determination of environmental impact on the basis of a project's consistency with legislation or with some governmental plan or policy, then can the CEA Act do anything to address climate change? The obvious problem is one that pervades every effort to address climate change: viewed incrementally on an individual project-by-project basis, even large projects are tiny in the context of global greenhouse emissions. While the Kearl Oil Sands project is unusually large in terms of greenhouse gas emissions (an expected 3.7 Mt of CO_2-eq, or 0.5% of Canada's emissions), it would still have

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[202] Canadian Environmental Assessment Act, ss. 20, 37.

[203] Bradley Karkkainen, *Toward a Smarter NEPA, Monitoring and Managing Government's Environmental Performance,* 102 COLUM. L. REV. 903, 904-05 (2002).

been a mere 0.05% of the world's carbon dioxide emissions in 2004.[204]

This is true even if the reviewers diligently consider "any *cumulative* environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out."[205] Considering the cumulative impact of a large project such as the Kearl Oil Sands project would sensitize the reviewer to the fact that this contribution to greenhouse gases comes on top of a century of an anthropogenic buildup of greenhouse gases, and that each incremental increase makes it that much more likely that some catastrophic outcome will result. But with emissions from China and India growing by leaps and bounds,[206] it is hard to resist the expedient conclusion that no project, not even the gargantuan Kearl Oil Sands project, would make any significant difference in terms of greenhouse gases. It would be difficult to see, under a common sense reading of section 37 of the CEA Act, how one of many incremental additions – even a large one – of carbon dioxide from the Kearl Oil Sands project would be "likely" to cause SAEE within the meaning of the section.

The responsible answer to the more difficult question is, of course, that work must commence immediately on curbing greenhouse gas emissions, even if that work is, by itself, ineffectual in making a difference on climate change. The CEA Act, having been in place for over a decade, and having acquired a body of

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[204] Gregg Marland, Bob Andres, & Tom Boden, Global CO2 Emissions from Fossil-Fuel Burning, Cement Manufacture, and Gas Flaring: 1751-2004, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratories, (2007), available online at http://cdiac.ornl.gov/ftp/ndp030/global.1751_2004.ems.

[205] Canadian Environmental Assessment Act s. 16(1)(a).

[206] China emitted 1366 Mt of CO_2-eq in 2004, more than double its 1990 emissions of 655 Mt in 1990 (Gregg Marland, Bob Andres, & Tom Boden, Global CO2 Emissions from Fossil-Fuel Burning, Cement Manufacture, and Gas Flaring: 1751-2004, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratories, (2007), available online at http://cdiac.ornl.gov/ftp/trends/emissions/prc.dat); India emitted 366 Mt in 2004 almost double its 1990 emissions of 186 Mt in 1990 (Gregg Marland, Bob Andres, & Tom Boden, Global CO2 Emissions from Fossil-Fuel Burning, Cement Manufacture, and Gas Flaring: 1751-2004, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratories, (2007), available online at http://cdiac.ornl.gov/ftp/trends/emissions/ind.dat).

jurisprudence (albeit maddeningly inconsistent[207]), is an obvious mechanism for inserting a level of review that ensures that federal projects take greenhouse gas considerations into account. The CEA Act has certainly been invoked in the past to halt projects with extremely compelling economic justifications, such as the Mackenzie Valley Pipeline.[208] There is no reason to think that this same mechanism cannot now be invoked for the cause of climate change.

But the terms of the CEA Act need amendment to specifically incorporate climate change concerns. Because the current CEA Act standard of SAEE is not useful in the climate change context, another must be developed. Either a legislative change must be made to adapt this phraseology to climate change, or by regulation, the phrase must be defined in terms of what is permitted in the way of greenhouse gas emissions. Guidance documents, because of their legal ineffectuality, are unlikely to be of help.

A legislative solution would appear to be the cleanest approach to adapting the CEA Act to climate change concerns. The SAEE concept is ill-fitted to the complicated and global problem of greenhouse gases, and a different standard would take an existing and familiar procedural mechanism – the CEA Act – and incorporate a new type of consideration. Companion sections paralleling sections 20 and 37 of the CEA Act might provide for a separate decision process evaluating a project specifically for its greenhouse gas emissions. We do not argue for any specific threshold standard for greenhouse gases, but note that a panel might be reasonably called upon to ensure that any project subject to the CEA Act be "carbon

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[207] Andrew Green, *Discretion, Judicial Review, and the Canadian Environmental Assessment Act*, 27 QUEEN'S L. J. 785 (2002).

[208] The Mackenzie Valley Pipeline project was a proposal to lay a natural gas pipeline through a north-south spine in the Northwest Territories. Then-prime minister Trudeau ordered an assessment of the environmental and aboriginal impacts of the pipeline, and to the surprise of many, the assessor, B.C. Supreme Court Justice Thomas Berger recommended against construction of the pipeline, due to the impacts to the environment and native populations near the pipeline. *See, e.g.,* The Canadian Encyclopedia, The Mackenzie Valley Project, online at http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=M1ARTM0012208.

neutral,"[209] or "have undertaken reasonable efforts to mitigate greenhouse gas emissions," or some other standard reasonably susceptible of review by a panel. The most important move would be to require explicitly some greenhouse gas considerations for CEA Act projects, and to provide some guidance for panels and agencies reviewing such projects.

The problem with a legislative solution has more to do with politics. In the five years since Canadian ratification of the Kyoto Protocol in 2002,[210] the Canadian federal government has failed miserably to enact greenhouse gas legislation. As discussed above, federal politicians have had far more interest in tossing climate change around as a political football than in any genuine resolve to address the climate change problem.

The simpler solution would be, then, to define by regulation SAEE for a federal project that involves greenhouse gases. By regulatory fiat, Environment Canada could decree that any federal project that is not, say, carbon neutral, has a SAEE, and hence must not be approved or must be "justified under the circumstances" in order to proceed.[211] The usual objection to such an administrative

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[209] Carbon neutrality is an often-used term to indicate that the greenhouse gas emissions of a project or action will, by performing offsetting actions or mitigation actions or both, ensure that the total greenhouse gas emissions after the project are lower than before. Offsetting actions might include planting trees to take up carbon dioxide, or capturing landfill gas (a powerful greenhouse gas) that would not have been captured otherwise. "Carbon neutral" was the New Oxford American Dictionary word of the year in 2006. *See,* Oxford University Press Blog, Carbon Neutral: Oxford Word of the Year (2006), online at http://blog.oup.com/2006/11/carbon_neutral_/. Carbon neutrality is gaining currency among corporations as a social norm, as well as a number of governments (including British Columbia) and governmental projects (the 2007 California election for the state's governor). Michael P. Vandenbergh & Anne C. Steinemann, *The Carbon-Neutral Individual,* 82 N.Y.U. L. REV. 101, 142-43 (2007).

[210] Government of Canada, Canada Treaty Information, Kyoto Protocol to the United Nations Framework Convention on Climate Change, online at http://www.treaty-accord.gc.ca/Details.asp?Treaty_ID=103129.

[211] Canadian Environmental Assessment Act, s. 37. "Significance" is not defined in CEA Act regulations or guidelines. While all of the provinces have environmental assessment procedures, only Nova Scotia attempts to flesh out significance, by stating that significance is to be evaluated in the context of its magnitude, geographic extent, duration, frequency, degree of reversibility, possibility of occurrence or any combination of these factors. Canadian

approach – that it can be easily undone – seems less weighty in light of the pressing need to address greenhouse gas emissions sooner rather than later. Moreover, given the inability of the Canadian federal government to enact greenhouse gas legislation, the expediency advantages of this administrative solution seem that much more important. The danger with such a regulatory approach is that it could be challenged and struck down on the grounds that it is *ultra vires*. An argument can be made that the CEA Act was never meant to be a substantive policy tool. One can argue that the purpose of the CEA Act was merely to ensure that a serious examination of environmental effects is undertaken, not that effective substantive policy results are achieved.

Although the CEA Act is a logical place to start in terms of engaging the federal government in greenhouse gases, it is important to recognize the limitations of this approach. It can only address new projects, and does nothing to bring existing sources of greenhouse gas emissions under control. With Canada needing a 25% reduction from current emissions to meet its Kyoto targets, holding firm on the *status quo* is insufficient. Adapting the CEA Act to include project review of the greenhouse gas implications is an important part, but only a part, of a Canadian response to the climate change problem.

B. Cap-and-trade vs. Intensity-based Emissions Trading

First conceived of in the 1960s by economist J.H. Dales,[212] the cap-and-trade idea is one of the major administrative reforms in the last three decades, taking the vast majority of pollution decisions out of the domain of government policy and placing them into the hands of emitters. The most notable and successful cap-and-trade program to date has been the U.S. SO_2 ("SO_2") emissions trading plan,[213] in which nearly all of the fossil fuel-fired electricity generating plants in the U.S. were allocated a certain number of allowances and required to have an allowance for each ton of SO_2 emitted. The allocation of permits is based on an historical baseline (a string of years in the

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Environmental Assessment Agency, Significance in EA Requirements and Guidelines, online at http://www.acee-ceaa.gc.ca/015/001/011/3_e.htm.

[212] *See, e.g.,* J.H. DALES, POLLUTION, PROPERTY AND PRICES (Univ. of Toronto Press, 1970).

[213] Clean Air Act §§ 401-416; 42 U.S.C. §§ 7651a-7651o (1990).

1980s), and is lower than the historical baseline so that some overall emissions reduction is achieved. In its initial phase, the program imposed a somewhat hard nationwide "cap" of 8.95 tons of SO_2 per year,[214] while in subsequent years more facilities have been included and the cap slightly raised.[215] The U.S. SO_2 cap-and-trade program reduced SO_2 emissions nationwide from over 21 million tons in 1994 to under 14 million in 2006.[216]

Partly as a result of the perceived success of the SO_2 program, emissions trading has gained worldwide acceptance as a way to reduce global greenhouse gas emissions. The Kyoto Protocol explicitly endorses emissions trading, permitting not only individual countries to achieve their national targets by emissions trading, but encouraging trading by and between countries.[217] The European Union has committed itself, in addition to the commitment of its member states, to an emissions reduction of eight percent below its 1990 levels,[218] and has undertaken an EU-wide emissions trading program to achieve it.[219]

While cap-and-trade programs minimize industry-wide compliance costs, they still impose them. If compliance was costless, then the environmental benefits would be nil. Some politicians have sought to soften the economic blow further, and proposed cap-and-trade programs that peg allowances to productivity. Emissions are thus measured in "intensity" terms, essentially dividing the absolute amount of emissions by some denominator that has to do with the

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[214] Clean Air Act s. 403(a)(1), 42 U.S.C. s. 7651b(a)(1) (1990). Special legislative dispensations, however, have pushed the real cap upwards. See discussion at note 226, infra.

[215] Ibid.

[216] U.S. Environmental Protection Agency, National Emissions Inventory, Air Pollutant Emission Trends Data, online at http://www.epa.gov/ttn/chief/trends/trends06/nationaltier1upto2006basedon2002finalv2.1.xls (Excel spreadsheet format, tabbed SO_2 Nat'l) (2003).

[217] Kyoto Protocol to the United Nations Framework Convention on Climate Change, art. 6, *agreed on* December 11, 1997 [hereinafter Kyoto Protocol].

[218] Ibid, at Annex B.

[219] Congressional Research Service, Climate Change: the EU Emissions Trading Scheme (ETS) Enter Kyoto Compliance Phase, at CRS-2 (2008), online at http://www.ncseonline.org/NLE/CRSreports/07Dec/RL34150.pdf; Carbon Trust, The EU Emissions Trading Scheme, online at http://www.carbontrust.co.uk/climatechange/policy/eu_ets.htm

quantity or value of product produced. Greenhouse gas emissions intensity from electricity generation, for example, would be measured in terms of tonnes of CO_2 per kilowatt-hour produced, so that if more efficient combustion techniques were discovered, boosting the amount of electricity produced, the amount of allowed CO_2 emissions would be increased.

The problem with intensity-based programs is that there is no credible way of knowing what actual greenhouse gas emissions will ultimately be, or even certainty that there will be any reduction at all. If, for a particular emitter, production efficiency improvements outpace the rate at which emissions intensity targets tighten, then that emitter will have available a pool of surplus allowances, which it can sell to other emitters, relieving them of the need to reduce emissions. A facility that doubles production and meets a 20% greenhouse intensity reduction target can still emit 60% more than it had originally.[220] There is thus no guarantee that the absolute amount of emissions will decrease.

This is a potentially huge difference between the two forms of emissions trading that have been considered in the context of greenhouse gas regulation. The simple cap and trade program would, depending on the number of special dispensations allowed, provide some degree of certainty in the absolute amount of aggregate greenhouse gas emissions, at least among those emitters covered by the program. But because there is no way of foreseeing production efficiencies achieved in the future, there is no way to project how many allowances will be available in any given future year, and hence emissions that will be allowed. Depending on their stringency, intensity-based programs may accomplish a little or a lot, but in any period of economic growth, will almost certainly be environmentally inferior to a similarly stringent cap-and-trade program.

An intensity-based program is also economically inefficient for reasons having nothing to do with environmental effects. The award of emissions allowances on the basis of productive output

[220] If the intensity target is a 20% reduction, then a facility producing 100 units of output that doubles its production but improves its efficiency by 20% (emitting only 80% of the emissions per unit of output) can still emit greenhouse gas emissions equal to 160 units (80% of 200).

amounts to a distortionary output subsidy.[221] An output subsidy creates economic inefficiency by encouraging over-production, directing resources into production of the subsidized good that might be used for other valuable goods. While every industry has an incentive to innovate to increase profit margins, an intensity-based program creates an extra incentive in the form of an extra source of wealth from productive efficiencies: the award of extra allowances. Apart from the environmental effects of this distortion, this creates a disadvantage for other industries.

Given equal initial conditions, it is safe to say that intensity-based emissions trading is both economically and environmentally inferior to cap-and-trade programs, although the false attraction of intensity-based programs is that it is less costly for regulated industries. The last two federal governments have been reluctant to impose economic costs to reduce greenhouse gases, in light of the concern over the loss of business to the U.S., where there has been no prospect of federal greenhouse gas regulation at all. However, with a new U.S. president, one that will be supporting legislation on climate change,[222] this concern will surely become obsolete in the near future.

C. Carbon Taxation vs. Cap-and-trade

A more serious policy debate involves a comparison between a carbon cap-and-trade program and a carbon tax. From a policy perspective, cap-and-trade programs putatively create some certainty

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[221] An output subsidy is a payment keyed to production, so that an extra incentive is provided to produce the subsidized good. This is distortionary because it draws resources into production of the subsidized good, in excess of what market signals would otherwise call for. For example, subsidizing production of all kinds of agricultural commodities has provided inexpensive food for consumers, but it is likely that some agricultural land would have been put to better uses. For a discussion of how output-based allocation of emissions allowances amounts to an output subsidy, *see,* Carolyn Fischer, *Rebating Environmental Policy Revenues: Output-based Allocation and Tradable Performance Standards,* Resources for the Future Discussion Paper 01-22 (2001), online at http://www.rff.org/documents/RFF-DP-01-22.pdf.

[222] Senators McCain and Obama have both publicly called for federal greenhouse gas emissions legislation. Senator McCain introduced legislation in 2000 to reduce greenhouse gases, which has been continuously updated and re-introduced. S. 280, *Climate Stewardship and Innovation Act of 2007* (Sens. Lieberman and McCain).

about the quantity of emissions allowed, while taxation programs provide some certainty with respect to the price of emissions. Some environmentalists have therefore called for a cap-and-trade program, on the reasoning that it is important to control the quantity of greenhouse gas emissions rather than worry about the cost.[223] However, this is only a superficial reason to favour quantity controls over price controls; any quantity can be achieved by price mechanisms simply by setting the tax at an appropriate level.[224]

Superficially, then, the two programs have similar economic effects: inducing emissions reductions where they can be most cheaply attained, leading to a minimization of the overall industry-wide compliance costs. However, there are a number of differences that separate the two types of programs. We argue that the majority of differences favour a carbon tax program.

1. Implementation Issues

Most prominently, implementation problems have plagued cap-and-trade programs. Designing a cap-and-trade program requires a determination of the level of the cap, which entities are subject to the program and above all, a determination of how the emissions allowances are to be initially allocated. All of these are fraught with political peril. Moreover, a cap-and-trade system can only apply to a reasonably manageable number of fairly large emitters – those that have the resources to monitor their emissions, and can buy and sell emissions allowances,[225] and a small enough number that a regulatory agency could monitor their compliance.

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[223] *See, e.g.,* E&E TV, *Climate: Pew's Claussen compares cap-and-trade with carbon tax approaches for emissions reduction,* July 16, 2007 ("… quite honestly, I'd rather put my money on the market, which is what cap and trade does, because there the market sets the price. The government doesn't set the price.") (transcript on file with author).

[224] Economist Martin Weitzman showed in a seminal work in 1974 that it is only the uncertainty and steepness of the marginal pollution abatement curve that make either a quantity control scheme (like a cap-and-trade program) more or less economically efficient than a price control scheme (like a Pigouvian taxation program). Martin L. Weitzman, *Prices vs. Quantities*, 41 REV. OF ECON. STUD. 477 (1974).

[225] Jack Mintz and Nancy Olewiler, A Simple Approach for Bettering the Economy and the Environment: Restructuring the Federal Fuel Excise Tax (2008) (on file with author).

The question of initial allocation has been a thorny one. The traditional and most familiar answer is that allowances are given away for free, based on some historical baseline of emissions, as was done in the SO_2 program. The base calculation for what became a complicated formula was to grant emissions allowances to fossil fuel-fired power plants equal to roughly half of the average emissions of the plant over a five-year period from 1980 to 1984. But arriving at a rule such as this required extensive negotiations, and was a sobering exercise in rent-seeking. Section 404(a)(3) provides that utilities in Indiana, Ohio, and Illinois would receive a special clump of 200,000 allowances for the years 1995-1999, to be split in proportion to their baseline emissions.[226] One would be hard-pressed to find a more naked example of raw political power.

There is also the tendency for lawmaking bodies to over-allocate allowances. The EU Emissions Trading Scheme, or EU ETS, which took effect in 2005, has experienced several extreme price collapses, dipping to well below ten euros in several instances.[227] With carbon prices so low, and prices so volatile, investment in low-carbon technologies has chilled,[228] and emissions reductions stalled.[229]

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[226] Clean Air Act §404(a)(3); 42 U.S.C. §7651c(a)(3).

[227] Point Carbon, Historic Prices, 2006 and 2007 Vintage (on file with author); BBC News, Q&A: Europe's Carbon Trading Scheme, December 20, 2006, online at http://news.bbc.co.uk/2/hi/science/nature/4114921.stm; Pew Center for Global Climate Change, The European Union's Emission Trading Scheme (ETS): Insights and Opportunities, no date, online at http://www.pewclimate.org/docUploads/EU-ETS%20White%20Paper.pdf; Gerard Wynn and Stuart Penson, *CO2 Price Crash Signals Tougher EU Pollution Goals,* Reuters, May 1, 2006, online at http://www.planetark.com/dailynewsstory.cfm/newsid/36186/story.htm.

[228] James Murray, *Emissions Trading Suffers as Carbon Prices Plummet,* BusinessGreen.com, February 21, 2007, online at http://www.businessgreen.com/business-green/analysis/2199726/emission-trading-suffers-carbon.

[229] Early estimates indicate that the EU's emissions rose 1.1% in 2007. Point Carbon, *EU ETS phase I emissions up 1% 2007 over 2006: analysts,* April 2, 2008 (on file with author). Even emissions from firms covered by the EU ETS rose 0.7% in 2007 over the previous year. REUTERS, *CO_2 emissions covered by ETS up 0.7% in 2007 – EU,* May 23, 2008 (on file with author).

One way around this initial allocation problem is to allocate allowances by auction. Auctions do away with quarrels over historical baseline rules, and remove some of the temptation to soften the economic blow to industry. Moreover, the mere allocation of emissions allowances for free to polluters produces an income effect that reduces incentives for innovation and for switching to cleaner fuels such as natural gas for electricity.[230] Auctioning allowances also provides significant economic benefits in that the revenues could be recycled and used to reduce other taxes.[231] The problem with auctioning allowances is one of political economy: distributing allowances for free does not require emitters to bear the cost of emissions. And to the extent that allowances are given away for free by law, lawmakers writing cap-and-trade legislation are essentially printing money, for distribution to appreciative constituents. Hence, the inevitable but inelegant marriages of rent-seekers and lawmakers.

The fears and difficulties associated with designing a cap-and-trade program are not imagined. Carbon traders – advocates of cap-and-trade who have an interest in a robust program – have already started publicly worrying that the Regional Greenhouse Gas Initiative, a regional cap-and-trade program for eight Northeastern U.S. states,[232] will be corrupted with special allocation rules and exceptions that will cumulatively defeat emissions reduction goals.[233] A group of business leaders and environmental organizations in the U.S. has been meeting privately to discuss what would be an acceptable compromise in terms of how to design a cap-and-trade program. Focusing on the problem of how to allocate the emissions allowances, the group has failed, over two years, to arrive at a compromise. In the words of Stanford professor David Victor, an observor, "[t]hey helped crystallize the concerns about climate

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[230] Dallas Burtraw, Karen Palmer, Ranjit Bharvirkar, and Anthony Paul, *The Effect on Asset Values of the Allocation of Carbon Dioxide Emission Allowances,* 15 THE ELECTRICITY JOURNAL 51 (June 2002).

[231] Discussed *infra,* text accompanying notes 256-259.

[232] Regional Greenhouse Gas Initiative, online at http://www.rggi.org/states.htm.

[233] Nathaniel Gronewold, *Some fear politics rather than economics will shape U.S. carbon markets,* ClimateWire, April 11, 2008 (on file with author).

change … [b]ut the moment the coalition starts to focus on the details, it starts breaking apart."[234]

By ignoring historical emissions entirely, a carbon tax avoids having to deal with the self-serving appeals to use one baseline rule or another. A carbon tax is not free of political peril, but is harder to finagle. By definition, a carbon tax would have to be applied to carbon-containing fuels meant for combustion. Any carve-out from a universal rule would be conspicuously peculiar. For example, trucking industries, which would be hard-hit by a carbon tax designed to reduce gasoline usage, could conceivably lobby for an exemption for diesel fuel, but how politically saleable would such a special dispensation be? Would commuters paying more for gasoline tolerate such a dispensation? And why not an exemption for the shipping industry? What if the cement industry, which is very greenhouse gas-intensive, lobbied for an exemption? Would that lead to an appeal from other vulnerable industries, such as pulp and paper production, or automobile manufacturing? The slippery slope problems inherent in granting exemptions would, ironically, make it more difficult to do so. By contrast, the ways that cap-and-trade allowances have been distributed are not at all necessarily obvious or free of controversy.

Another specious but common feature of cap-and-trade proposals is the idea of "offsets," a way for emitters to *generate* additional allowances by undertaking projects that purport to reduce emissions by creating an emissions reduction from some baseline, or "business as usual" path. For example, Canadian officials have from time to time floated ideas on granting emissions allowances for certain offset projects, such as forestry practices that result in longer rotations and more tree planting, on the theory that these enlightened practices *sequester* carbon dioxide, and serve to *offset* emissions elsewhere.[235] The problem with such ideas is the inability of a certifying authority to ascertain whether the business as usual path is a genuine one or an ingeniously concocted story about whether some set of events would actually take place. For example, a proposal to

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[234] Jad Mouawad, *Industries Allied to Cap Carbon Differ on the Details,* N.Y.TIMES, June 2, 2008, online at http://www.nytimes.com/2008/06/02/business/02trade.html.

[235] AGRICULTURE AND AGRI-FOOD CANADA, AGRICULTURE AND CLIMATE CHANGE 5 (2005).

generate offsets by lengthening rotations may or may not produce emissions reductions, as tree rotations may be extended for any number of economic, regulatory, or ecological reasons. Granting credits under such circumstances is gratuitous, and frustrates emissions reduction objectives.

The Kyoto Protocol has demonstrated the vulnerability of emissions trading to this form of rent-seeking. "Clean Development Mechanisms," by which a developed country may finance a "low-carbon" project in a developing country and in so doing collect credits towards meeting its Kyoto targets,[236] have led to illusory emissions reductions. Far from achieving any greenhouse gas reductions, the program has been mostly a political boondoggle, subsidizing projects in developing countries that are undertaken *only because* of the Clean Development Mechanism program.[237] In retrospect, it should have been obvious that the Clean Development Mechanism concept was flawed in presuming that it could ascertain a "business as usual" baseline and reward projects that create a downward deviation from such a baseline. Any emissions trading program that permits credits based on any business-as-usual projections invites ingeniously misleading arguments for extraneous projects.

Carbon taxation is not completely free of political peril or rent-seeking, either. Setting the level of the tax is the politically sensitive decision that must be made in implementing a carbon tax. Economics professors Jack Mintz and Nancy Olewiler have proposed taking the current federal fuel excise tax, which only applies to transportation fuels, and applying it across the board to all carbon-containing energy sources, including coal, natural gas, fuel oil, and other gases and liquids sold for combustion,[238] a proposal that seems to have been recently adopted by the federal Liberal Party.[239] The advantage of this proposal is that it would not require an increase in gasoline taxes, which is always a politically sensitive move. The

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[236] Kyoto Protocol, Article 12.

[237] Michael Wara, *Is the Global Carbon Market Working?* 445 NATURE 595 (Feb. 2007).

[238] *Supra*, note 225.

[239] Liberal Party of Canada, The Green Shift: Building a Canadian Economy for the 21st Century, online at http://thegreenshift.ca/pdfs/green_shift_book_en.pdf.

disadvantage of this proposal is the fact that it will not curb emissions from motor vehicles at all, because it merely seeks to extend the same tax already levied on motor fuels to other fossil fuels. It is hard to believe that Canada can sufficiently reduce greenhouse gas emissions without reducing emissions from the transportation sector, which accounts for about 26 percent of Canada's greenhouse gas emissions.[240] Reducing emissions from transportation would require an increase in fuel costs. There is, of course, a simple remedy for this: increase the tax across the board, for all fossil fuels destined for combustion.

Cap-and-trade programs can only succeed if the cap is a tight, binding constraint, and if leakage is tightly controlled, covering as many sectors as possible. The EU, with its stated good intentions, has evidently not yet succeeded in this regard. Cap-and-trade programs thus have great potential for achieving greenhouse gas reductions, but the short history of such programs does not bode particularly well for cap-and-trade as a means of reducing greenhouse gas emissions. Lawmaking bodies all over the world, domestic and international, have simply been unable to contain the impulse to create loose caps and allow emissions leakage, frustrating emissions reductions objectives. The carbon tax has at least one important advantage: there is *one* obvious methodology for setting a carbon tax, and that is to base the tax on the carbon content of a fossil fuel. This criterion is so obvious and so straightforward, and is so conveniently proportional to the harm caused by greenhouse gas emissions, that it would be more difficult to tamper with it politically than it would be to simply impose it.

2. Political and Psychological Issues

Perhaps the more salient question is how politically acceptable a carbon tax would be. The political reality that haunts Canada is that the very mention of the word "tax" in the same sentence as "carbon" evokes emotional reactions in Alberta. While

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[240] Environment Canada, Canada's 2006 Greenhouse Gas Inventory, Sectoral Greenhouse Gas Emission Summary, online at http://www.ec.gc.ca/pdb/ghg/inventory_report/2006/tab_eng.cfm (showing total transportation emissions of 190 Mt and total emissions of 721 Mt).

the word "tax" is always loaded in North America generally,[241] in Alberta the word stirs up resentment stemming from the Lougheed-Trudeau clash in the 1980s.[242] So hostile are Albertans (and North Americans generally) to the word tax that even policies that substantively address the basis of these fears are dismissed. A greenhouse gas tax plan proposed by Michael Ignatieff during his 2006 campaign for leadership of the Liberal Party lived a very short political life. Ignatieff's proposal would have funneled carbon tax revenues back to the province in which they were collected.[243] Little good it did: political columnist Jeffrey Simpson joked that Ignatieff's move was the political equivalent of affixing a "Kick Me" sign on his back.[244]

Is the carbon tax really a political third rail? Does it in fact bring up old ghosts of the NEP? With prominent oil sands interests starting to come out in favour of a carbon tax,[245] it is apparent that cracks in the Albertan anti-tax edifice are beginning to appear. The economics and the politics of carbon taxation have also changed. With the price of crude topping $145 per barrel for the first time in history,[246] the prospect of a carbon tax is no longer enough to send

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[241] Edward J.McCaffrey and Jonathan Baron, *Heuristics and Biases in Thinking About Tax,* PROCEEDINGS OF 96TH ANNUAL CONFERENCE ON TAXATION 434-43 (2003).

[242] Brian Laghi and David Ebner, *Resentment of things past*, THE GLOBE AND MAIL, January 26, 2008, available online at http://www.theglobeandmail.com/servlet/story/RTGAM.20080125.woilsandsalberta0126/BNStory/oilsands.

[243] Peter O'Neil, *Ignatieff Calls for 'Carbon Tax' to Aid Climate,* Vancouver Sun, August 21, 2006 (on file with author).

[244] Jeffrey Simpson, *For real green ideas, Mr. Dion, talk to Iggy,* THE GLOBE AND MAIL, January 17, 2007, A19

[245] Matthew Burrows, *Petro-giants will accept carbon tax,* Straight.com, December 7, 2007, online at http://www.straight.com/article-123594/petro-giants-will-accept-a-carbon-tax; Gordon Jaremko and Jason Markusoff, *Oilsands backs carbon tax: All polluters must help pay for carbon-capture scheme, industry*, EDMONTON JOURNAL March, 11, 2008, online at www.canada.com/edmontonjournal/story.html?d=7a5e4730-1cbe-4fb6-8900-a5eff7ba3d11&k=62480.

[246] U.S. Department of Energy, Energy Information Administrations, Cushing OK, WTI Daily Spot Price History FOB (dollars per barrel), online at http://tonto.eia.doe.gov/dnav/pet/hist/rwtcd.htm

shudders up and down Albertan spines.[247] Rather, the politics of carbon taxation may be more aligned with the vulnerability of industries to the input price pressures presented by a carbon tax. The modest B.C. carbon tax has drawn objections from the mining, cement, forestry and smelting industries, trade-intensive industries with a limited ability to pass the tax on to their consumers.[248] Ontario, with a number of energy-intensive industries, including the vulnerable automotive industry, has not been friendly territory for carbon tax proposals.[249]

Moreover, the carbon tax meets with political resistance on the ground that as a consumption tax, it is thought to be regressive.[250] Gasoline taxes, for example, impose higher transportation costs that take up a larger proportion of a poor driver's paycheck than that of a rich driver, so the thinking goes, such that an increase would deprive

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[247] As noted above, *supra,* note 39, the carbon content of a barrel of crude oil is typically 0.12 tonnes. Even if the carbon tax were a high $50 per tonne (B.C.'s carbon tax peaks at $30 per tonne in 2012), the tax on a barrel of oil would be about $6 per barrel, levied on $127, at today's crude oil prices. What could be more troubling for the oil sands industries is the carbon tax levied on the energy required to process and refine the oil product, since oil sands production is fairly energy-intensive. Emissions from oil sands production was estimated in 2006 to be approximately 76 kg per barrel (National Energy Board, Canada's Oil Sands: Opportunities and Challenges to 2105: an Update 39 (Figure 6.1), *citing* Pembina Institute, Oil Sands Fever – the Environmental Implications of Canada's Oil Sands Rush, 2004 (2006)), so that a $50/tonne carbon tax would add another $3.80 per barrel.

[248] Nathan Vanderklippe, *BC industry lines up against carbon tax,* Canwest News, May 27, 2008, online at http://www.canada.com/topics/news/story.html?id=5e7547ab-0554-4f89-86e3-698e6df5f12b.

[249] Maria Babbage, *McGuinty at odds with Dion over carbon tax,* Canadian Press, May 27, 2008, online at Thestar.com, http://www.thestar.com/printArticle/431833. Ontario Premier Dalton McGuinty has opposed federal Liberal carbon tax proposals, notwithstanding his brother being the federal Liberal environment critic that is advancing the idea of a federal carbon tax.

[250] Sarah E. West and Roberton C. Williams, *Estimates from a Consumer Demand System: Implications from the Incidence of Environmental Taxes,* 47 J. EVNTL. ECON. & MGMT. 535, 535 (2004) ("Most studies suggest that environmental taxes are regressive, making them less attractive policy options."); Shi-Ling Hsu, *Carbon Tax Heuristics and Politics: the Case of the Gasoline Tax* (April 15, 2008) available at SSRN: http://ssrn.com/abstract=1121039.

poorer drivers of more basic goods than rich drivers.[251] This line of thinking, however, seems to be based more on selective anecdote than empirical analysis.[252] Moreover, the question of whether a carbon tax is regressive or not is more complicated than is typically presented in public discussion. Is a carbon tax regressive if the lowest quintile of households is hurt more than the second-lowest quintile, but the second-lowest quintile is hurt less than the richest quintile? How many income classifications are needed for analysis? Is elasticity to be taken into account?[253] Do we think about regressiveness in terms

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[251] James M. Poterba, *Is the Gasoline Tax Regressive?* NBER Working Paper No. 3578, online at http://www.nber.org/papers/w3578.pdf; *republished in* TAX POLICY AND THE ECONOMY, VOL. 5 145-164 (D. Bradford, ed., 1991); Chris Harrison, *Regressive Taxation Rage,* Democraticunderground.com, March 1, 2002, online at http://www.democraticunderground.com/articles/02/03/01_regressive.html ("Perhaps an even better example for the innate unfairness of regressive taxation is a gasoline tax. While well-intentioned advocates of a gasoline tax tout the way it will shift demand away from gas-guzzling SUV's and toward hybrid cars and public transit, they fail to recognize how it will devastate large groups of lower-income commuters…. Many of the rural poor already spend a large percentage of their income on commuting to and from work. If a sizable gasoline tax were to be enacted, without the public transportation infrastructure already in place, many of these lower-wage earners would be left to choose between gas for commuting to work, or food on the table. If they choose to immediately feed their families, they could be left without sufficient funds for gas, in which case they could lose their jobs due to their inability to get to work.").

[252] The New York Times ran a series of articles on the impact of high gasoline prices on various individuals throughout the country, highlighting the hardships imposed upon cabdrivers ("'Compared to a year ago, I pay $15 more a day in gas,' said Miguel Gonzalez, 67, of Queens. 'I only take home $100 a day, so that's my lunch and dinner right there.'"), immigrants ("Lesly Richardson, 50, a Haitian immigrant from Brooklyn, nodded in agreement. 'That's $100 a week,' he said. 'That's your grocery bill.'"), college students ("Mr. Cole, who studies computers at Lakeland Community College and earns $8.18 an hour working in a factory that heat-treats metal, did not have money for gas. So he stayed home. 'I won't be able to see her [his girlfriend] till I get paid,' he said. 'Ever since gas prices went up, it's like I'm barely able to see her.'"), single mothers ("In an adjoining gas lane, Cindy Wright spoke of the pain high gas prices cause the single mothers who make up many of the clients at the public health clinic in Torrington, where she is a nurse."). *As Gas Prices Go Up, Impact Trickles Down,* N.Y. TIMES, April 30, 2006, at A1.

[253] Regressivity could be measured by different delineations of income, and using a large variety of different assumptions about how drivers respond. The most careful study of the projected incidence of a gas tax increase was done by West and Williams, who estimated separate demand models for each of five income quintiles, one- and two-adult households, and found that under the most severe and simplistic

of a present snapshot in time, or do we think about the lifetime income or consumption of individuals?[254] It is simplistic to flatly pronounce, as NDP leader Jack Layton has, that a carbon tax would "hurt the poor."[255]

3. Revenue Recycling

In order to blunt the various kinds of political opposition, there is often talk about how carbon taxes raise revenues,[256] and how these revenues might be "recycled" or "shifted" in such a way as to reduce the economic pain of those having to pay the tax, or to redistribute income to the poor. As economists generally consider income and sales taxes to be distortionary,[257] proposals to reduce environmental harm by taxation has the potential bonus of reducing distortionary taxes and increasing social welfare.[258] Or it could even

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assumptions – that gasoline is perfectly inelastic and people make no adjustments whatsoever to changes in the price of gasoline – the incidence on the poorest quintiles is not substantially different from that of the next two higher quintiles. Sarah E. West and Roberton C. Williams, *Estimates from a Consumer Demand System: Implications from the Incidence of Environmental Taxes,* 47 J. EVNTL. ECON. & MGMT. 535, 551 (Table 3) (2004). *See also,* James M. Poterba, *Is the Gasoline Tax Regressive?* in TAX POLICY AND THE ECONOMY 145-160 (D. Bradford, ed., 1991).

[254] Kevin A. Hassett, Aparna Mathur, & Gilbert Metcalf, *The Incidence of a U.S. Carbon Tax: A Lifetime and Regional Analysis,* National Bureau of Economic Research Working Paper 13554 (2007) (on file with author).

[255] Joanna Smith, *Carbon tax would hurt the poor, NDP says,* Thestar.com, May 23, 2008, online at http://www.thestar.com/News/Canada/article/429174.

[256] It should be noted that if emissions allowances are auctioned, cap-and-trade programs can also raise revenues. This is discussed *infra,* notes -230 and text accompanying.

[257] *See, e.g.,* Lawrence H. Goulder, Ian Parry, Roberton Williams III & Dallas Burtraw, *The Cost-effectiveness of Alternative Instruments for Environmental Protection in a Second-best Setting,* 72 J. PUBL. ECON. 329 (1999); Ian Parry, Roberton C. Williams III & Lawrence Goulder, *When can Carbon Abatement Policies Increase Welfare? The Fundamental Role of Distorted Factor Markets,* 37 J. Envtl. Econ. & Mgmt. 52 (1999); Ian Parry & Wallace E. Oates, *Policy Analysis in the Presence of Distorting Taxes,* 19 J. Policy Analysis & Mgmt. 603 (2000).

[258] This economic effect, popularly known as the "double dividend," is the subject of debate. It has been argued that environmental taxes increase the cost of goods, such that reducing distortionary income taxes may not offset the excess burden of the environmental tax. Lawrence H. Goulder, *Effects of Carbon Taxes in an Economy with Prior Tax Distortions: An Intertemporal General Equilibrium Analysis*. 29 J. ENV'T. ECON.& MGMT. 271 (1995). However, it has also been

be recycled back to emitters forced to pay the tax, as Sweden has done with a tax on emissions of nitrogen oxides.[259] These revenue recycling ideas often serve to dull the political sharp edges that confront taxation proposals.

An important point to bear in mind, however, is that the point of a carbon tax would be to decrease consumption of carbon-emitting activities, so that the tax proceeds would eventually decline. If (and hopefully when) carbon-emitters respond to the tax by reducing carbon emissions, tax proceeds would also decline. Some account would need to be taken, then, of future sources of tax proceeds to replace the declining stream of carbon tax proceeds. The carbon tax should not be oversold, then, as *both* an effective way to reduce emissions and *also* an economically painless way to do so. What carbon tax proceeds could accomplish is provide some temporary aid for various transitional costs associated with making the kinds of structural societal changes required to reduce greenhouse gas emissions.

4. Carbon Taxation vs. Cap-and-trade – Conclusion

In environmental instrument choice, pollution taxation has played the role of "bad cop" to cap-and-trade's "good cop," because taxation always *appears* to be more costly than cap-and-trade programs. The obvious but obscured reality is, however, that environmental progress will always cost, and the question is who bears the costs, not whether they are borne at all. The economic virtue and political downfall of taxation programs is that they generally present the costs in an open and transparent fashion, while cap-and-trade programs, if implemented by issuing free, "grandfathered" allowances, hide them. As noted in the comparison of grandfathered allowances with auctioned allowances,

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argued that this fails to account for the fact that the income tax system, by allowing deductions, creates distortions by favoring certain kinds of spending; thus if environmental taxes can reduce income taxes, it can also reduce these distortions. Ian W. H. Parry & Antonio M. Bento, *Tax Deductions, Environmental Policy, and the "Double Dividend" Hypothesis*, 39 J. ENV'T. ECON. & MGMT. 67 (2000).

[259] The NOx tax in Sweden is levied upon energy producers but rebated to them in proportion to energy output. *The Swedish Charge on Nitrous Oxides*, at http://www.internat.naturvardsverket.se/ (June 1, 2007). This would, however, convert the tax into a distortionary output subsidy. *Supra,* note 221.

grandfathering allowances seems to cost nothing, but in reality, represents a deadweight economic loss, as well a loss of auction proceeds that could be used for any number of governmental purposes, including the reduction of other taxes.

The word "tax" itself is partially responsible for its unpopularity, a somewhat uniquely North America pathology.[260] One experiment found that people were more positively inclined towards a program requiring a "payment" than one that involved a "tax," even if the programs were substantively identical.[261] But this is the framing problem confronting any advocate of any tax program: people tend to favour programs that hide costs, rather than make them transparent. For example, opposition to gasoline taxes to reduce gasoline usage is replaced in the U.S. by vehicle fleet fuel efficiency standards, or CAFE standards, which are less effective in reducing fuel usage but do hide the costs of conservation in vehicle design and upfront pricing.[262] From a purely economic point of view, phobic reactions to any policy with the word "tax" in it are irrational, since any alternative to taxes simply hides the costs from public view or cognizance.

Recent public opinion polls seem to suggest that the Canadian public is ahead of Canadian politicians, at least federal ones, on addressing climate change through carbon taxation.[263] If this trend continues, then the pocketbook pandering by Canadian politicians is surely a political miscalculation. Among economists, there is a growing consensus that a carbon tax is a superior means of addressing

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[260] Hsu, *supra,* note 250, at 250.

[261] Edward J. McCaffrey and Jonathan Baron, *The Political Psychology of Redistribution,* CLEO Research Paper Series, Research Paper CO5-4 (2005), available online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=695305.

[262] Shi-Ling Hsu, *supra,* note 250.

[263] Poll results vary, but a growing number of polls seem to indicate robustness with respect to Canadian support for a carbon tax. One recent poll showed that 61% of Canadians supported "a carbon tax levied on people and business based on the carbon emissions they generate," with 32% opposed. Even Albertans responded favourably by a margin of 65 to 33%. Harris/Decima, Press Release: Tax Environmental Harm, Reward Environmental Good, May 7, 2008, available online at http://www.harrisdecima.ca/en/pdf/news_releases/080508E.pdf. See also, Mike DeSouza, *Carbon Tax Gaining Support Across Canada: Poll*, Canwest News Services, May 25, 2008 (on file with author).

greenhouse gas emissions,[264] and along with it, a sense that public opinion may soon follow. While the manufacturing-heavy regions of Southern Ontario will balk, the obvious benefits of carbon taxation will ultimately prevail, especially if some transitional relief can be provided.

We believe that a carbon tax is clearly the most economically and environmentally effective option available to the federal government. The implementation advantages of administering what is essentially another sales tax over the regulatory infrastructure that would be needed to design and administer a cap-and-trade program, are too compelling even for cravenly political animals to ignore. While political shenanigans have saddled cap-and-trade programs with special allocation perks that frustrate emissions reduction objectives, a federal carbon tax would be more difficult to sabotage. Because a federal carbon tax would typically be levied on a transaction like a sales tax, it would require a bit more audacity to write into legislation some blatant giveaway that would serve to insulate or exempt certain industries or individuals. Taxes are by their nature more universal, so that they come with a presumption that everyone pays them.

D. Command and control regulation

Because greenhouse gases are a by-product of such a wide variety of activities, a regulation of the command-and-control type would necessarily be extremely complex, might take one of many different forms, and draw on a wide variety of technologies. For coal combustion, industry standards might refer to carbon capture and

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[264] *Economists Favor Fossil Fuels Tax to Spur Alternatives – Survey,* E&E NEWS PM, Feb. 8, 2007. Nobel Laureate Economist Joseph Stiglitz, a former chief economic advisor to President Bill Clinton, called for a global carbon tax in 2006, (Joseph Stiglitz, *A New Agenda for Global Warming,* 3 Economists' Voice Issue 7, Article 3 (2006), online at http://www.bepress.com/cgi/viewcontent.cgi?article=1210&context=ev), as did Harvard Economics Professor Gregory Mankiw, a former chief economic advisor to President George W. Bush (Gregory Mankiw, *Raise the Gasoline Tax,* WALL ST. JOURNAL, October 20, 2006, online at http://online.wsj.com/article/SB116131055641498552.html, republished on Gregory Mankiw's blog, at http://gregmankiw.blogspot.com/2006/10/pigou-club-manifesto.html).

storage technology, or coal gasification,[265] or any number of technologies and processes that have come along in the drive to save coal combustion from obsolescence in a carbon-constrained world. For natural gas exploration, command-and-control regulation might mandate techniques to limit flaring, the wasteful initial burning off of natural gas before the gas stream can be harnessed. For other combustion and industrial processes, a variety of other technologies and techniques may be possible. Command-and-control regulation in the context of greenhouse gas regulation would thus be a mandate to install some emissions reduction technology or adopt some emissions-reducing practices, most likely ones that are ascertained by looking at industry practices, or perhaps common industry ideas. It would be impossible to cover all Canadian greenhouse gas emitters, as there are literally thousands of smaller emitters that are too numerous to identify and regulate.

That said, a small number of credible voices have called for command-and-control type regulation of greenhouse gases, simply because immediate and dramatic governmental action is required. Scientific studies reporting increasingly dire forecasts for climate change are now strongly suggesting that humankind has a very small amount of time before some catastrophic climate events take place, such as the melting of ice sheets in both Greenland and Antarctica that would add a catastrophic 25 metres to sea level.[266] Scientists believe that a sustained increase of 2° C over pre-industrial levels would lead to the melting of the Greenland ice sheet, which would itself add 7 metres to sea level,[267] a troublesome prospect since we

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[265] Carbon capture and storage typically involve separating carbon dioxide from other gases in process emissions, compressing it to a high density, and then storing it underground or beneath the ocean to isolate it from the atmosphere. International Panel on Climate Change, *IPCC Special Report on Carbon dioxide Capture and Storage, Technical Summary*, http://www.ipcc.ch/pdf/special-reports/srccs/srccs_technicalsummary.pdf.

Coal gasification technology turns solid coal into gas before burning it. This allows impurities to be removed from the fuel more efficiently and effectively than in conventional coal-burning plants, where the clean-up is done post-combustion. Jennie C. Stephens, "Coupling CO2 Capture and Storage with Coal Gasification: Defining "Sequestration-Ready" IGCC", http://www.bcsia.ksg.harvard.edu/energy.

[266] ROBERT HENSON, THE ROUGH GUIDE TO CLIMATE CHANGE 117 (2d ed., 2008).

[267] HENSON, *supra,* note 266, at 87-88.

have already experienced a rise of 0.7° C.[268] An even scarier prospect is the melting of Antarctic ice sheets, which would, with the melting of the Greenland ice sheets lead to a truly catastrophic 25 metre rise in sea levels, and even that could occur with as little as a 3° C increase in temperature from pre-industrial levels.[269]

From a policy perspective, there may be considerable advantage in a blunt but broad instrument, one that might achieve some deep reductions very soon, even if it comes at a high compliance cost. While the economics might theoretically favour cap-and-trade or carbon taxation programs, the practicalities and politics of such programs may cause a delay that humankind may not be able to afford. The advantage of the traditional command-and-control type of regulation is that regulatory infrastructures are already in place, and administrative agencies in developed countries such as Canada know how to carry them out. With the kinds of market signals that politicians are currently talking about and implementing – a modest $40 per tonne in the case of the Liberal Party proposal for a federal carbon tax – the large-scale structural and cultural changes may not take place in time.[270] While a price on carbon is a necessary condition to greenhouse gas reduction, it may not be a sufficient one.[271]

Against this backdrop, prominent economists such as Jeffrey Sachs, the director of the Earth Institute at Columbia University, argue for large-scale governmental intervention into the many technological possibilities that could make a major and near-term difference in reducing greenhouse gases. For example, carbon capture and storage technology, which would capture carbon dioxide

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[268] HENSON, *supra,* note 266, at 3.

[269] National Oceanic and Atmospheric Administration scientist and climate change pioneer James Hansen believes that a sustained increase of 3° C could lead to positive feedback effects that would trigger the truly catastrophic melting of Antarctic ice sheets. James E. Hansen, *Scientific Reticence and Sea Level Rise,* 2:1, 4-5 (2007). Among most credible scientists, Hansen's predictions are considered slightly aggressive but highly credible. *See, e.g.,* ROBERT HENSON, THE ROUGH GUIDE TO CLIMATE CHANGE 116-18 (2d ed., 2008).

[270] Jeffrey D. Sachs, *Technological Keys to Climate Protection,* SCIENTIFIC AMERICAN, March 18, 2008, online at http://www.sciam.com/article.cfm?id=keys-to-climate-protection.

[271] Ibid.

at its point of emission and pipe and store it underground without allowing its escape into the atmosphere,[272] would require a substantial amount of government-sponsored research, the construction of pipelines that cross property boundaries and jurisdictions, and the monitoring of storage facilities to ensure that the carbon dioxide actually stays underground.[273] Development and maturation of this technology is not possible without substantial governmental involvement. Along similar lines, Scott Barrett argued in a 2003 book, *Environment and Statecraft*, that climate technologies need such widespread and rapid deployment that uniformity of technology is required to coordinate their worldwide adoption.[274] In light of the difficulty of inducing developing countries to undertake emissions reductions, the agreement upon a single way of doing things may facilitate a fairly large-scale change in relatively short order.

All of these considerations that favour a command-and-control response are global in nature, and only implicate Canada as one of many developed countries that could lead by example. Along with the United States, however, Canada has some uniquely favourable conditions for undertaking large, government-supported projects that could produce global command-and-control strategies: a huge (too huge) infrastructure for the mining, transport, and combustion of coal; a vast network (not vast enough) of pipelines that could be utilized for carbon dioxide transport; and oil and gas exploration ventures that might benefit from carbon dioxide as a means of "enhanced recovery," using carbon dioxide as a gaseous pump to extract more oil or gas.[275] One pilot project involves the piping of carbon dioxide captured from a plant in North Dakota to an oil field in Saskatchewan that will increase production from the oil field.[276] While private efforts such as these are encouraging, the widespread and rapid adoption of these efforts will require considerable governmental involvement.

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[272] See discussion, *supra,* note 265.

[273] Sachs, *supra,* note 270, at 270.

[274] SCOTT BARRETT, ENVIRONMENT AND STATECRAFT 261-62, 395 (2003).

[275] International Panel on Climate Change, *supra,* note 265, at 19, 21, 23, 36-37.

[276] CO_2 Capture and Storage, Weyburn Enhanced Oil Recover Project, http://www.co2captureandstorage.info/project_specific.php?project_id=70.

In this regard, a saving grace of the current federal greenhouse gas plan – the centerpiece of which is a fishy intensity-based emissions trading plan – is the requirement that all oil and gas facilities coming online after 2012 install carbon capture and storage technology.[277] Similarly, many European policymakers are at least preparing for investment in carbon capture and storage technology as a part of their greenhouse gas reduction efforts, requiring all coal-fired power plants constructed after 2020 to include the technology.[278] One would hope, by that time, there would be very few, if any coal-fired power plants being constructed. However, the acknowledgement, through a command-and-control mandate, of the need to require widespread utilization of a greenhouse gas reduction technology, is surely a step in the right direction.

V. Conclusion

Both constitutional and policy considerations favour two instruments for reducing Canadian greenhouse gases: a carbon tax and the Canadian Environmental Assessment Act. Both federal and provincial authorities to impose a carbon tax are clear. Federal authority to consider greenhouse gases under the CEA Act is also quite solid. A constitutional and political virtue of both the carbon tax and the environmental assessment process is the fact that both instruments leave provincial initiatives alone. Under taxation schemes, both federal and provincial governments are free to establish and pursue their greenhouse gas objectives without interference from the other. A comprehensive federal cap-and-trade system may survive constitutional scrutiny but raise issues about how it would mesh with provincial trading programs. The greenhouse gas intensity-based system currently pursued by the federal government poses both constitutional and policy problems. Command-and-control regulation would, like a cap-and-trade program, likely survive constitutional scrutiny but raise implementation issues. Given the increased interest on the part of both the Alberta government and the federal government in carbon capture and storage, there is an enormous potential for conflict over who will be required to capture carbon, and who will store it, and where. That two levels of

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[277] *Supra,* note 22.

[278] *Europeans are Preparing to Bet Heavily on Carbon,* Climatewire, April 4, 2008, online at http://www.earthportal.org/news/?p=1003.

government should be independently pursuing separate programs that require a great deal of coordination is folly.

The policy advantages of a carbon tax and the Canadian Environmental Assessment Act are quite strong. Both draw on existing regulatory infrastructures. In the case of the carbon tax, little additional monitoring and enforcement capability is required, as taxation at a transaction point is something that revenue agencies throughout Canada already do quite effectively. And while the existing CEA Act currently does a poor job of handling greenhouse gas considerations, relatively simple amendments by regulation or legislation would suffice to patch its shortcomings. By contrast, there are some fairly serious policy issues that need to be dealt with before either a federal cap-and-trade or command-and-control system were to be put in place, and more still with intensity-based emissions trading.

The politics of greenhouse gas regulation are changing rapidly, more quickly than federal politicians are realizing. The familiar old economic doomsayers have lost credibility, and with even oil sands interests coming out in favour of a carbon tax,[279] it appears that Canadians are more willing to absorb economic pain than federal politicians, in their obsequious pandering, have expected. Sometimes the simplest of solutions are the most elusive to grasp. Canadians and the world would greatly benefit if federal politicians could summon up the modest courage and foresight to implement a sensible greenhouse gas reduction strategy taking advantage of these two policy instruments.

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[279] *Supra,* note 245.