

It's Getting Hot Out Here: Western Canada Turns Up Heat On Climate Change

Jason Bourgeois

Alexander Holburn Beaudin & Lang LLP, Vancouver

Table of Contents

A.	BRITISH COLUMBIA	4
1.	BC Energy Plan	4
2.	Western Climate Initiative	6
3.	Greenhouse Gas Reduction	7
4.	Carbon Tax	10
5.	Renewable and Low Carbon Fuels	13
6.	Cap and Trade System	17
	(a) The Cap	18
	(b) The Trade	20
	(c) Administrative Penalties.....	21
	(d) Offences.....	22
	(e) Public Requests for Investigation	23
	(f) Confidentiality	24
	(g) Regulations.....	24
7.	Emissions Standards	25
	(a) <i>Environmental Management Act</i> (B.C.)	25
	(b) <i>Forest Act</i> (B.C.)	28
8.	Green Communities	29
9.	Pine Beetle Impacts	31
B.	ALBERTA	33
1.	GHG Regulatory Framework	33
	(a) <i>Climate Change and Emissions Management Amendment Act</i>	33
	(b) <i>Specified Gas Emitters Regulation</i>	34
	(c) Options for Industry Compliance.....	35
(i)	Make operating improvements.....	35
(ii)	Buy emission offsets	35
(iii)	Buy Fund credits	35
(iv)	Buy emission performance credits.....	36
2.	2008 Climate Change Strategy	37
	(a) Implementing carbon capture and storage – 70% (139 megatonnes) ..	37
	(b) Conserving and using energy efficiently – 12% (24 megatonnes)	38
	(c) Greening energy production – 18% (37 megatonnes).....	38

C.	SASKATCHEWAN	38
D.	MANITOBA	40
	1. Climate Change Plan	40
	2. Regulatory Framework	42
E.	CONCLUSION	43

This paper focuses on recent changes in climate change laws and policies from Western Canada. It is meant to accompany a May 2008 panel presentation on hot topics in environmental, energy and resources law. The paper will start with British Columbia in the west and work its way east ending with Manitoba.

A. BRITISH COLUMBIA

Governments have many tools available to combat climate change. Since early 2007, British Columbia appears to be trying them all:

- conservation and clean energy policies have been introduced;
- task forces have been appointed;
- multijurisdictional collaboration has been sought;
- carbon tax has been introduced; and,
- legislation has been introduced covering:
 - renewable fuel and low carbon fuel requirements;
 - a cap and trade system; and,
 - carbon neutral power production.

1. BC Energy Plan

In February of 2007, the BC Energy Plan: A Vision for Clean Energy Leadership¹ was introduced with a flair.² Its main goals are:

- acquire 50 % of BC Hydro's incremental resource needs through conservation by 2020;

¹ BC Ministry of Energy, Mines and Petroleum Resources, News Release, "*The BC Energy Plan A Vision for Clean Energy Leadership*" (February 27, 2007), <<http://www.energyplan.gov.bc.ca/newsrelease/default.htm>>

² "If we fail to act aggressively and shoulder our responsibility, we know what our children can expect. Things we take for granted and that have taken millenia to evolve could be at risk and lost in the lifetimes of our children." -2007 Throne Speech

- clean or renewable electricity generation will continue to account for at least 90 % of total generation;
- all new electricity projects developed in B.C. will have zero net greenhouse gas (“GHG”) emissions;
- existing thermal generation power plants will reach zero net GHG emissions by 2016;
- zero GHG emissions from coal-fired electricity generation;
- government has committed the province to be electricity self-sufficient by 2016;
- to encourage small B.C. clean or high efficiency cogeneration, BC Hydro is establishing a standing offer program with a set purchase price for power projects up to 10 megawatts;
- new \$25-million Innovative Clean Energy Fund will encourage the development of clean energy and energy efficient technologies in the electricity, alternative energy, transportation and oil and gas sectors; and,
- new BC Bioenergy Strategy will take advantage of B.C.’s abundant sources of renewable energy, such as beetle-killed timber, wood wastes and agricultural residues.

The BC Energy Plan is not without its criticism. Besides the vagueness in achieving many of its goals, one of the main challenges will be the price of electricity. There is no question that B.C. has had historically very low electricity rates:

“In the Northwest, the dams produced so much cheap hydroelectricity that hundreds of thousands of people who flocked to the region during and after the [Second World] war did not bother to insulate their homes. Insulation was expensive; electricity was dirt-cheap...For decades, the Northwest and British Columbia have had the highest rates of electricity consumption in the world.”³

³ Marc Reisner, *Cadillac Desert: The American West and Its Disappearing Water* (Vancouver: Douglas & McIntyre, 1993) at 166.

The result of these very low rates has been a competitive advantage for B.C. in the development of an energy-intense industry (for example, aluminum), in which anywhere between 20-80 % of their costs are for electricity.

Because of its historically very low electricity rates, the conservation part of BC's plan may be more of a viable part of the solution than people think. It is staggering to learn that even recycling one aluminum can saves the amount of energy to light one 100 watt light bulb for 20 hours.⁴

The BC Energy Plan calls for B.C. to be energy self-sufficient by 2016, a goal that increases the need to build new domestic capacity in order to reduce the demand for imported power. According to BC Hydro, B.C. has been relying on power imports to meet up to 15% of electricity needs over the past six years. Becoming energy self-sufficient by 2016 will be a huge challenge since BC Hydro is on records saying that the gap between demand and supply is expected to widen as demand increases a projected 25-45% in B.C. over the next two decades.⁵

So practically speaking, BC will need more home grown electricity but there is a restriction that all new power be essentially green to meet the GHG reductions targets. New thermal power generation (currently the lowest cost options for electrical energy) is no longer acceptable. The effect is that the price of electricity is going up (perhaps even skyrocket) for both households and industry. BC Hydro says that power rates might go up as much as 25 % over the next three or four years. And as costs rise, B.C.'s energy-intense industry will inevitably be affected. Retrofits and higher energy efficiency will be needed which will in turn require significant capital investment.

Fortunately, B.C. is not alone in its fight against climate change.

2. Western Climate Initiative

BC's next move was to seek some multijurisdictional collaboration with other Canadian Provinces and American States and join the Western Climate Initiative ("WCI"). The WCI is

⁴ "Report on Green Solutions" *The Globe and Mail* (22 April 2008) E8 (Source Waste Reduction Week in Canada).

⁵ BC Hydro, *Meeting the Challenge*, <<http://www.bchydro.com/policies/index/index3196.html>>

a multijurisdictional partnership which was launched in February 2007 by the Governors of Arizona, California, New Mexico, Oregon and Washington to develop regional strategies to address climate change. WCI is identifying, evaluating and implementing collective and cooperative ways to reduce greenhouse gases in the region. In the spring of 2007, the Governor of Utah and the Premiers of British Columbia and Manitoba joined the Initiative. Montana joined in January, 2008.⁶

The WCI is working on identifying, evaluating and putting in place ways to reduce greenhouse gases, including the development of a cap and trade system by August 2008. WCI members now number 63 million people, with a collective gross domestic product of \$2.9 trillion (CAD). It is anticipated that membership will grow over time with new partners joining from both the U.S. and Canada.

As part of the WCI, British Columbia committed to reducing greenhouse gases and introduced its first piece of climate change legislation in November of 2007.

3. Greenhouse Gas Reduction

The *Greenhouse Gas Reductions Targets Act* (B.C.)⁷ (“*GHG Act*”) was introduced in November of 2007 and has been in force since January 1, 2008. It enshrines into law the government’s promised 33% reduction in the province’s GHG emissions by 2020.

Part 1 of the *GHG Act* applies to BC greenhouse gas⁸ emissions generally. It sets two province wide targets for GHG reductions:

- by 2020 and for each subsequent calendar year, BC GHG emissions to be at least 33% less than the level of those emissions in 2007⁹;
- by 2050 and for each subsequent calendar year, BC GHG emissions to be at least 80% less than the level of those emissions in 2007¹⁰;

⁶ Western Climate Initiative, <<http://www.westernclimateinitiative.org/Index.cfm>>

⁷ *Greenhouse Gas Reductions Targets Act*, S.B.C. 2007, c. 42 <http://www.leg.bc.ca/38th3rd/3rd_read/gov44-3.htm>

⁸ "greenhouse gas" means any or all of carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and any other substance prescribed by regulation

⁹ s. 2(1)

Further, GHG emissions targets for 2012 and 2016 are to be set by regulation before the end of 2008¹¹. The province must also determine and make public the 2007 BC GHG baseline emissions levels as soon as “reasonably practicable.”¹²

The government has acknowledged that it needs help to reduce B.C.’s GHG emissions and has appointed a task force to assist. The Climate Action Team (“CAT”) has been appointed to help the government to aggressively reduce British Columbia’s GHG emissions by 33 % by 2020. It is comprised of several Nobel Peace Prize winners, senior business executives and others.¹³ Its goal before the end of 2008 is to advise on the most credible, aggressive and economically viable targets possible for 2012 and 2016.¹⁴ The CAT’s recommendations will be put out for public comment and the 2012 and 2016 targets will be legally mandated, through regulation, by the end of 2008.

The climate action policies announced by the government have the potential to reduce B.C.’s emissions by 24 to 33 million tonnes – anywhere from 60 to 82 per cent towards the target of a 33 per cent reduction by 2020. A key role for the CAT will be to identify GHG reduction policies and actions that bridge the gap to reach 100 per cent of the reduction target.¹⁵

Supporting the CAT will be the BC Climate Action Secretariat, a central government body that is responsible for ensuring that B.C.’s targets are met.¹⁶ Together they will lead and drive change to achieve the Province’s GHG emission reduction targets.

The remainder of the *GHG Act* really only applies only to the Provincial government¹⁷ and public sector organizations (“PSO”)¹⁸. PSOs are considered to include provincial ministries

¹⁰ s. 2(1)

¹¹ s. 2(2)

¹² s. 3

¹³ B.C. Office of the Premier, News Release, “*Province Announces Climate Change Team*” (November 20, 2007), <http://www2.news.gov.bc.ca/news_releases_2005-2009/2007OTP0180-001488.htm>

¹⁴ B.C. Office of the Premier, News Release, “*Province Announces Climate Change Team*” (November 20, 2007), <http://www2.news.gov.bc.ca/news_releases_2005-2009/2007OTP0180-001488.htm>

¹⁵ B.C. Office of the Premier, News Release, “*Province Announces Climate Change Team*” (November 20, 2007), <http://www2.news.gov.bc.ca/news_releases_2005-2009/2007OTP0180-001488.htm>

¹⁶ BC Climate Action Secretariat, <<http://www.climateactionsecretariat.gov.bc.ca/index.php>>

and agencies, schools, colleges, universities, health authorities and Crown corporations each must be carbon neutral¹⁹ for the 2010 calendar year and for each subsequent calendar year.²⁰

The government must also be carbon neutral for the 2008 and 2009 calendar years regarding its GHG emissions that are directly related to public officials travelling on public business for which the travel expenses are covered by the consolidated revenue fund.²¹

According to the BC Climate Action Secretariat, the government is now in the midst of measuring the carbon footprint of all of its operations, including hospitals, the school system, etc.

Under the *GHG Act*, the Provincial government must make reports public regarding GHG emissions²² and carbon neutral actions.²³ Simply applying emission offsets²⁴ will not be enough for the government to become carbon neutral. In order to be carbon neutral, it must pursue actions to minimize its GHG emissions as well as apply emission offsets.

¹⁷ "Provincial government" means that part of the government reporting entity referred to in paragraph (a) [government as reported through the consolidated revenue fund] of the definition of "government reporting entity" in section 1 (1) of the Budget Transparency and Accountability Act;

¹⁸ "public sector organization" means any of the following: (a) the Provincial government; (b) an organization or corporation that is not part of the Provincial government but is included within the government reporting entity under the Budget Transparency and Accountability Act, unless excluded by regulation under this Act; (c) any other public organization or corporation included by regulation;

¹⁹ "carbon neutral", in relation to a public sector organization for a particular period, means that the public sector organization has complied with the obligations under section 6 [requirements for achieving carbon neutral status] to (a) pursue actions to minimize the relevant greenhouse gas emissions for that period, and (b) net those greenhouse gas emissions to zero in accordance with that section;

²⁰ s. 5(1)

²¹ s. 5(2)

²² s. 4

²³ ss. 7 and 8

²⁴ "emission offset" means an emission offset, as established, approved or recognized under the regulations for the purpose of (a) reducing greenhouse gas emissions, or (b) reducing atmospheric greenhouse gas concentrations through storage, sequestration or other means;

All offsets bought in the process of meeting its goals will be sourced within B.C. through the Carbon Trust, a Crown corporation launched in autumn 2007 to purchase carbon credits within the province.²⁵

According to the province, the *GHG Act* makes it the first government in North America to require all public sector organizations to publicly report on their emissions levels and actions taken to reduce those levels.

Under the *GHG Act*, Cabinet will also have authority to make regulations, including:

- prescribing organizations or corporations as being included within, or excluded from, the definition of "public sector organization"²⁶; and,
- adopting codes, standards, rules or laws from other provincial, national or international bodies.²⁷

Because no regulations have been passed yet and there has been an absence of a transparent consultation strategy, it is unclear how the *GHG Act* will mesh with that of the federal government, other provinces, or its WCI partners.

The BC government has repeatedly said it is leading by example with its energy plan and *GHG Act*. That may be possible with government's seemingly endless resources. However, the real test of this initiative will come when BC industry is legally mandated to do the same. The Province has launched a variety of initiatives over the past several months that will ultimately force behavioural changes within industry as well as the general public.

4. Carbon Tax

In February of 2008, B.C.'s Ministry of Finance delivered its *Budget and Fiscal Plan 2008/09 – 2010/11* ("2008 Budget").²⁸ One of the main aspects of the 2008 Budget was the

²⁵ British Columbia Office of the Premier, News Release, "*Premier Outlines New Steps to Tackle Climate Change*" (28 September 2007), <http://www2.news.gov.bc.ca/news_releases_2005-2009/2007OTP0141-001209.htm>

²⁶ s. 12(2)(b)

²⁷ s. 12(4)

²⁸ British Columbia, *Budget and Fiscal Plan 2008/09 – 2010/11* (February 19, 2008) <http://www.bcbudget.gov.bc.ca/2008/bfp/2008_Budget_Fiscal_Plan.pdf>

introduction of a consumer-based carbon tax, a fiscal tool to help meet B.C.'s climate challenge. Simply put, the tax is aimed at encouraging British Columbians to use less carbon. It is a price incentive that is expected to indirectly reduce GHG emissions by shifting consumers away from carbon-intensive fuels. It is directed at all types of consumers within the B.C. economy, from big businesses to individuals.

Starting on July 1, 2008, an additional tax will be levied on the purchase or use in B.C. of virtually all fossil fuels including gasoline, diesel fuel, natural gas, home heating fuel, propane, coal and possibly other fossil fuels. The carbon tax starts at a rate based on \$10 per tonne of associated carbon, or carbon-equivalent, emissions and will rise by \$5 a year for the next four years - reaching \$30 per tonne by 2012. The phased in approach is intended to give individuals, businesses, and industry time to adapt, innovate, and reduce the impact of the tax.

How this translates to the average consumer is an immediate increase of 2.41 cents per litre for gasoline, rising gradually to 7.24 cents a litre by 2012. For diesel and home heating oil, it works out to 2.76 cents per litre, rising to 8.27 cents over the same five-year period.

It appears that the new carbon tax will spare no one and it will affect all consumers of fossil fuels throughout the provincial economy. The tax base includes fossil fuels used for transportation by individuals and in all industries, including the combustion of natural gas to operate pipelines, as well as road, rail, marine and air transportation. As well, the tax base includes fuel used to create heat for households and industrial processes, such as producing cement and drying coal. It is estimated that more than three-fifths of the carbon tax will be paid by B.C. businesses, with the rest falling on households.

The expectation is that a higher price for higher-carbon choices should make greener options more commercially viable. The government hopes that businesses and entrepreneurs will be encouraged to develop innovative solutions that offer consumers and business affordable, lower or no-carbon emission alternatives.

The government's selling feature is that the carbon tax will be revenue neutral. What that means is that 100 per cent of revenues from the tax (expected to reach \$1.849 billion over the next three years) will be returned to British Columbians (individuals and businesses) through offsetting tax reductions. All of the revenue raised will be offset by cutting other

taxes and none of the revenue will be used to fund government programs. As part of the revenue recycling, a refundable tax credit will help offset the tax for low income individuals and families and each resident of BC will get a \$100 in the pocket this year as a one time dividend.

While the carbon tax has been lauded by some it has been heavily criticized by others, probably none more vocal than B.C.'s rural communities. It has sparked colourful news headlines such as "*As Campbell takes green high road, rural regions tell him to get lost.*"²⁹ While Premier Campbell is being hailed by some as North America's greenest leader³⁰, he has also been personally singled out as a target of government contempt with some calling him "the Premier of Point Grey".³¹ B.C.'s carbon tax is alleged to be unfair and biased against those in its rural northern communities, those who face a greater challenge in heating their homes and who are forced to drive more since they cannot rely on public mass-transit for employment and basic transportation like their urban Lower Mainland counterparts.

Another criticism is that the carbon tax and offsetting tax reductions will not be revenue neutral for all industries. Industry sectors that rely on fossil fuels to run their operations and ship their product to market will be hardest hit. Lumber mills, pulp and paper producers, mining companies, pipelines, greenhouse growers, and manufacturers in industries ranging from food processing to chemicals and cement and will be disproportionately impacted.

While all users of fossil fuel will feel the squeeze of the carbon tax, one of the hardest hit industries will be B.C.'s domestic cement producers, who expect \$66 million in additional operating costs over the next five years as a direct result. That amount represents a near-doubling of energy costs to produce Portland grey cement.³²

²⁹ Ian Bailey "As Campbell takes green high road, rural regions tell him to get lost" *The Globe and Mail* (11 April 2008) S3.

³⁰ Ken Hunt, "Green Giant: In the Battle to Tame Canada's Greenhouse Gas Emissions, B.C.'s Gordon Campbell is the Undisputed Heavyweight", *Report on Business* (May 2008) 68.

³¹ Vancouver-Point Grey is the Premier's riding and is an extremely prosperous area of Vancouver.

³² Scott Simpson "Carbon tax worries cement makers" *The Vancouver Sun* (8 April 2008), <<http://www.canada.com/vancouvernews/business/story.html?id=c5a739c8-354c-4a31-bbb3-03eb5ac75d18&k=12138>>

It should be noted that in the greater context of B.C.'s Energy Plan for 2020, the carbon tax is expected to help cut B.C.'s carbon footprint by about 5 %, well short of its 33 % goal.³³

5. Renewable and Low Carbon Fuels

The *Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act* (Bill 16) was introduced on April 1 and had its Third Reading on April 17, 2008.³⁴ Bill 16 will create a regulatory framework that enables the B.C. to set benchmarks for the amount of renewable fuel in B.C.'s transportation fuel blends, reduce the carbon intensity of transportation fuels and meet its commitment to adopt a low-carbon fuel standard similar to California's.³⁵

Bill 16 reflects government's commitment to reduce the carbon emissions intensity of transportation fuels by at least 10 % by the year 2020 and to have an average of 5 % renewable fuels blended in B.C.'s diesel fuels and gasoline by 2010.³⁶ Two main obligations will be imposed on fuel suppliers:

- supply renewable fuel; and,
- supply fuel with less carbon.

Bill 16 will require fuel suppliers to have a prescribed percentage of renewable diesel and gasoline fuel³⁷ in all fuel supplied to the market in B.C. The actual percentage of renewable

³³ "British Columbia Introduces First Consumer Carbon Tax!" *SustainableBusiness.com* (February 29, 2008), <<http://www.sustainablebusiness.com/index.cfm/go/news.display/id/15472>>

³⁴ Bill 16, *Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act*, 4th Sess., 38th Leg., British Columbia, 2008 <http://www.leg.bc.ca/38th4th/3rd_read/gov16-3.htm>

³⁵ B.C. Ministry of Energy, Mines and Petroleum Resources, News Release, "*New Requirements to Lower Greenhouse Gas Emissions in BC*" (1 April 2008) <<http://www.westernclimateinitiative.org/ewebeditpro/items/O104F16552.PDF>>

³⁶ British Columbia, Legislative Assembly, *Official Report of Debates (Hansard)*, Volume 29, Number 3 (April 1, 2008) at 10693 (Hon. R. Neufeld) <<http://www.leg.bc.ca/hansard/38th4th/H80401a.htm#bill16-1R>>

³⁷ "renewable fuel" means (a) in relation to gasoline class fuel, (i) ethanol produced from biomass, or (ii) another substance prescribed by regulation as a renewable fuel in relation to gasoline class fuel, and (b) in relation to diesel class fuel, (i) biodiesel, or (ii) another substance prescribed by regulation as a renewable fuel in relation to diesel class fuel;

fuel has not been set and will be prescribed by regulation.³⁸ Compliance for fuel suppliers can be achieved in two ways:

- by actual compliance with the requirement (i.e. meeting the prescribed percentage)³⁹; or,
- by notional transfers from other fuel suppliers that have supplied a higher percentage of renewable fuel⁴⁰.

Fuel suppliers will be required to file reports with government evidencing their compliance.⁴¹

Next, Bill 16 will require fuel suppliers to supply low carbon intensity⁴² fuel to consumers. Regulations are yet to be passed that will determine the prescribed carbon intensity.⁴³ As with renewable fuels, compliance can be achieved in two similar ways:

- by actual compliance with the requirement (i.e. meeting the prescribed carbon intensity)⁴⁴; or,
- by notional transfers to or from other fuel suppliers that have not exceeded their carbon intensity levels.⁴⁵

Fuel suppliers will be required to file reports with government evidencing their compliance.⁴⁶

³⁸ s. 25(g)

³⁹ s. 2

⁴⁰ s. 5

⁴¹ s. 3

⁴² "carbon intensity", in relation to a Part 3 fuel, means the greenhouse gas emissions attributable under the regulations to the fuel proportionate to the energy provided by the fuel in its expected use for transport or another prescribed purpose, (a) expressed as grams of carbon dioxide equivalent emissions per megajoule of energy, and (b) as determined in accordance with section 6 [requirements for reduced carbon intensity];

⁴³ s. 26(m)

⁴⁴ s. 6

⁴⁵ s. 8

⁴⁶ s. 7

Bill 16 will impose administrative penalties upon fuel suppliers for non-compliance with various provisions. Administrative penalties will be imposed in three ways. The first deals with reporting where administrative penalties are automatically imposed and cannot be appealed. If fuel supplier's report indicates that it has not complied with its obligations for renewable fuel content⁴⁷ or reduced carbon intensity⁴⁸, the fuel supplier is subject to an administrative monetary penalty.

An administrative penalty will also be imposed in the situation where the director is satisfied, on a balance of probabilities, that the actual quantities of renewable fuel were different from those reported⁴⁹ or the actual carbon intensity level was different from that reported.⁵⁰ In either of these cases the director **must** serve the fuel supplier with an administrative penalty notice.⁵¹ The fuel supplier then has 30 days⁵² to appeal the notice to the Environmental Appeal Board ("EAB")⁵³.

Finally, there will be a catch-all provision that applies if the director is satisfied, on a balance of probabilities, that a person has contravened a prescribed provision of this Act or the regulations.⁵⁴ If that is the case, the director **may** take action and serve the fuel supplier with an administrative penalty notice.⁵⁵ Again, the fuel supplier would have 30 days to appeal the notice to the EAB.

When it comes to enforcement, Bill 16 goes past mere administrative penalties. A person who fails to file compliance reports as required, or obstructs an inspection, or fails to comply

⁴⁷ s. 9

⁴⁸ s. 10

⁴⁹ s. 11(1)

⁵⁰ s. 11(3)

⁵¹ s. 11(2) or 11(4)

⁵² *Environmental Management Act* (B.C.), s. 101

⁵³ s. 14

⁵⁴ s. 12

⁵⁵ s. 11(2) or 11(4)

with a director's direction, commits an offence and is liable to a maximum sentence of \$1 million or imprisonment up to 6 months, or both.⁵⁶

If a corporation commits an offence under the Act, an officer, director or agent of the corporation who authorized, permitted or acquiesced in the offence commits the offence.⁵⁷

The time limit for laying an information for an offence under this Act is 3 years after the date that the facts on which the information is based arose, or, if the minister completes a certificate, 18 months after the date that the facts on which the information is based first came to the knowledge of the minister.⁵⁸

Confidential information of fuel suppliers will be protected under Bill 16 and will be consistent with the *Freedom of Information and Protection of Privacy Act* (B.C.). Any person who has access to protected information⁵⁹ that is in the custody or under the control of the government must not disclose the protected information to any other person.⁶⁰ It is an offence to disclose this protected information and if convicted, the maximum sentence is \$200,000 or imprisonment for a term of 6 months, or both.⁶¹

While Bill 16 will most likely decrease GHG emissions in B.C., the legislation is not without controversy. Ironically, the government wants to mandate the use of ethanol in gasoline but B.C. doesn't have any large scale production of ethanol. At least at first, it will have to be imported from American operations⁶² and arrive with its own GHG baggage due to production and transportation emissions. There are also ethical and global considerations for the use of ethanol in fuel (i.e. food for fuel debate).

⁵⁶ s. 15(4)

⁵⁷ s. 18

⁵⁸ s. 20(2)

⁵⁹ "protected information" means information that would reveal (a) trade secrets of a third party, or (b) commercial, financial, labour relations, scientific or technical information of or about a third party;

⁶⁰ s. 22(2)

⁶¹ s. 15(6)

⁶² Derrick Penner, "Government brings in low-carbon fuel bill" *The Vancouver Sun* (2 April 2008), <<http://www.canada.com/vancouvernews/business/story.html?id=23e7f256-4ebc-4468-974a-c4219d78b13b>>

The B.C. government has been criticised for introducing this legislation at a time when global food shortages are on the rise, food riots are appearing with more frequency and the government of Haiti actually fell over the price of foodstuffs. Biofuels have even been dubbed “a crime against humanity” by some influential members of the U.N.⁶³ Even in the U.S., recent news stories discuss some retail stores that are forced to limit the amount of rice sold per customer.⁶⁴

The argument against biodiesel is more technical than ethical since biodiesel is more likely to be produced from waste products (i.e. rendered animal fat). The technical challenge for biodiesel is that, even at low blends, it will tend to stiffen up in cold climates like B.C.’s northern regions. The government’s response to this concern is that the 5 % is an “average” of renewable content and will allow suppliers to trade content-credits between regions. For example, in the Lower Mainland, a supplier might offer higher biodiesel content fuel allowing a supplier in northeastern B.C. to supply lower biodiesel content fuel.

The government insists that Bill 16 will help to establish a sustainable market for renewable fuels and low-carbon fuels in B.C. and create new economic opportunities at the same time as reducing GHG emissions from transportation and supporting its important climate action goals.⁶⁵

6. Cap and Trade System

The *Greenhouse Gas Reduction (Cap and Trade) Act* (Bill 18) was introduced on April 3 and had its Second Reading on April 9, 2008.⁶⁶ As of April 25, 2008 when this paper was finalized, it was still being debated in the Legislative Assembly.

Bill 18 is cap and trade legislation. Cap and trade regulatory systems determine which sources (normally large final emitters) will be covered by the system, and set a limit on the

⁶³Norman Spector, “Embracing ethanol during food shortage raises doubts about government’s wisdom”, *The Globe and Mail*, (April 21, 2008) S2.

⁶⁴CNN.com, “Skyrocketing rice prices has Sam’s Club limiting sales”, <<http://www.cnn.com/2008/US/04/24/samsclub.rice.limits/>>

⁶⁵British Columbia, *Legislative Assembly, Official Report of Debates (Hansard)*, Volume 30, Number 1 (April 8, 2008) 11032 (Hon. R. Neufeld) <<http://www.leg.bc.ca/hansard/38th4th/H80408a.htm#bill16-2R>>

⁶⁶Bill 18, *Greenhouse Gas Reduction (Cap and Trade) Act*, 4th Sess., 38th Leg., British Columbia, 2008 <http://www.leg.bc.ca/38th4th/1st_read/gov18-1.htm>

total amount of emissions allowed from those sources. That is the cap part and is an absolute limit on the emissions responsible for global warming.

The “trade” part of the system allows regulated emitters to buy and sell emissions allowances or buy offset units. Those who can reduce emissions more efficiently are able to sell their surplus units to those who find it more challenging to do so. This system transfers emission reduction responsibility and management to emitters, while market forces help determine the distribution of reductions.

A cap and trade system directly legislates a scarcity of allowable emissions. Carbon instruments are created that are liquid and can be exchanged in the market at a certain price. Because of its complexity to administer, a cap and trade system is best suited for large emitters than for individual consumers.

Bill 18 is intended to establish a legal basis for the province's participation in the regional cap and trade system being developed by the WCI before August 2008.

(a) The Cap

Certain operators⁶⁷ of operations⁶⁸ in specific industries will be regulated and their emissions “capped”. Yet to be introduced regulations will prescribe the regulated operations.⁶⁹

Expected to be caught will be large final emitters in heavy industry (electricity, fossil fuel production, etc.) with some groups even advocating the aviation sector.⁷⁰ The transportation sector has been the largest source of GHG emissions in British Columbia. It will be hit hard by the recently introduced carbon tax and will most likely be left out of the cap and trade system.

⁶⁷ "operator", in relation to a regulated operation or reporting operation, means the person considered under the regulations to be the operator in relation to the operation;

⁶⁸ "regulated operation" means an operation that is a regulated operation under the regulations;

⁶⁹ s. 38

⁷⁰ Matt Horne, “*Cap and Trade: Reducing Pollution, Inspiring Innovation*”, The Pembina Institute (March 2008), <<http://pubs.pembina.org/reports/capandtrade-rpt.pdf>>

B.C. business is advocating that issues of competitiveness need to be addressed in an cap and trade system. Many of B.C.'s industries that might be caught by the cap and trade system are exporters on a continental or global basis and are consider "price takers" in that they cannot simply pass on higher costs to their customers. In the result, B.C. business is advocating a distinction between trade-exposed industries and industries that are domestically focused.⁷¹

So how does the B.C. system look. A designated final emitter (operator) must:

- first determine the GHG emissions attributable to its regulated operation for the compliance period; and,
- retire⁷² compliance units⁷³ that represent an amount of carbon dioxide equivalent emissions that is at least equal to the amount of GHG emissions attributable to the regulated operation for the compliance period.⁷⁴

Compliance units include:

- BC Allowance Units ("BCAU")⁷⁵;
- BC Emission Reduction Units ("BCERU")⁷⁶; and,
- Recognized Compliance Units ("RCU").⁷⁷

⁷¹ Business Council of British Columbia, January 31, 2008 letter to Climate Change Secretariat Re: Western Climate Initiative (WCI) Options Paper.

⁷² "retire" means, (a) in relation to a BCAU or BCERU, the final transfer of the compliance unit into a retirement account in the compliance unit tracking system from which it may not be transferred, and (b) in relation to an RCU, retirement of the compliance unit in accordance with the regulations.

⁷³ "compliance unit" means (a) a BCAU, (b) a BCERU, or (c) an RCU;

⁷⁴ s. 2

⁷⁵ "BC Allowance Unit" or "BCAU" means a compliance unit issued under section 6 [BC Allowance Units];

⁷⁶ "BC Emission Reduction Unit" or "BCERU" means a compliance unit issued under section 8 [BC Emission Reduction Units];

⁷⁷ "Recognized Compliance Unit" or "RCU" means a Recognized Compliance Unit under section 11 [Recognized Compliance Units];

Under Bill 18 it is the number of BCAUs⁷⁸ available to all the designated emitters that will be capped.⁷⁹ The whole point of a cap and trade system is that the number of BCAUs made available must be limited and less than what is needed to cover all the provincial GHG emissions for a given compliance period. Remember, B.C. is trying to reduce its GHG emissions. But how much less will the regulations prescribe? Some are advocating as much as 33% less to reflect the BC Energy Plan.⁸⁰

Designated emitters will be required to submit compliance reports to government regarding the GHG emissions attributable to the operation for the reporting period.⁸¹

(b) The Trade

A limited number of tradable emission allowances will be distributed by government for given periods of time (compliance periods). These emission allowances are tradable. Each designated emitter will then be required to obtain a number of compliance units equivalent to the amount of regulated GHG emissions it releases within the specified compliance period. These units must then be surrendered to the government as proof of compliance.

BCERUs are the traditional emission "offsets" from accepted emission reduction projects⁸² where the emission of GHGs is reduced/avoided, or GHGs are removed from the atmosphere.⁸³ RCUs are units from another system (specifically including the WCI) and will be prescribed by regulation.⁸⁴

⁷⁸ s. 5 and s. 39(a)

⁷⁹ "cap" means the maximum number of BCAUs that may be made available for a particular compliance period, as prescribed under section 5 [cap on BCAUs for compliance period];

⁸⁰ Matt Horne, "*Cap and Trade: Reducing Pollution, Inspiring Innovation*", The Pembina Institute (March 2008), <<http://pubs.pembina.org/reports/capandtrade-rpt.pdf>>

⁸¹ s. 4

⁸² Under Bill 18, there is no requirement that the project be in B.C.

⁸³ s. 9

⁸⁴ s. 39(c)

Each B.C. issued BCAU or BCERU will represent one tonne of carbon dioxide equivalent emissions. Each RCU will represent the amount of carbon dioxide equivalent emissions that is prescribed for the applicable type of compliance unit.⁸⁵

Bill 18 provides for BCAUs and BCERUs to be recorded in a compliance unit tracking system⁸⁶ established under the Act or by a regulation.⁸⁷ However, there is no guarantee that a compliance unit tracking system will be established in B.C. Bill 18 provides authority for regulations to designate a system as the compliance unit tracking system, specifically including a system that is administered by an authority established under the WCI.⁸⁸

If a compliance unit tracking system is set up in B.C., the government must designate an administrative authority to be responsible for administering the compliance unit tracking system in accordance with the Act and regulations.⁸⁹

(c) Administrative Penalties

Bill 18 will impose administrative penalties upon operators for non-compliance with various provisions. Administrative penalties will be imposed in three ways. The first deals with reporting where administrative penalties are automatically imposed and cannot be appealed. If an operator's compliance report indicates that it has not complied with its obligations to retire compliance units to match emissions the operator is subject to an administrative penalty. Interestingly enough, in this case, an administrative penalty can be either monetary or an obligation to retire compliance units.⁹⁰

An administrative penalty will also be imposed in the situation where the director is satisfied, on a balance of probabilities, that the GHG emissions attributable to a regulated operation were different from those reported, or the operator of a regulated operation fails to submit a

⁸⁵ s. 11

⁸⁶ "compliance unit tracking system" means the compliance unit tracking system under section 14 [compliance unit tracking system];

⁸⁷ s. 14 and s. 40

⁸⁸ s. 40(a)

⁸⁹ s. 15

⁹⁰ s. 17

compliance report.⁹¹ In either of these cases the director **must** serve the operator with an administrative penalty notice.⁹² The operator then has 30 days⁹³ to appeal the notice to the EAB⁹⁴.

Finally, there will be a catch-all provision that applies if the director is satisfied, on a balance of probabilities, that a person has contravened a prescribed provision of this Act or the regulations.⁹⁵ If that is the case, the director **may** take action and serve the person with an administrative penalty notice.⁹⁶ Again, the person would have 30 days to appeal the notice to the EAB.

(d) Offences

When it comes to enforcement, Bill 18 also goes past mere administrative penalties. Bill 18 establishes that a person convicted of an offence is liable to a fine of not more than \$1 million or imprisonment for a maximum of 6 months, or both. The offences under the Act include:

- failure to retire compliance units to match emissions;
- failure to file compliance reports;
- failure to file emissions reports;
- obstruction or resistance to the director or an inspector exercising powers or performing duties under the Act;
- failure to comply with a direction given or requirement imposed under the Act by the director or an inspector;
- knowingly providing false or misleading information; and,

⁹¹ s. 18(1)

⁹² s. 18(2)

⁹³ *Environmental Management Act* (B.C.), s. 101

⁹⁴ s. 22

⁹⁵ s. 19(1)

⁹⁶ s. 19(2)

- providing false or misleading information.⁹⁷

If an offence continues for more than one day, separate fines, each not exceeding the maximum fine for the offence, may be imposed for each day the offence continues.⁹⁸

If a corporation commits an offence under the Act, an officer, director or agent of the corporation who authorized, permitted or acquiesced in the offence commits the offence.⁹⁹

Bill 18 provides that the time limit for laying an information for an offence is 3 years after the date that the facts on which the information is based arose, or, if the minister completes a certificate, 18 months after the date that the facts on which the information is based first came to the knowledge of the minister.¹⁰⁰

(e) Public Requests for Investigation

Bill 18 also includes whistle blowing protections. An individual who is resident in British Columbia and at least 18 years of age may apply to the chief conservation officer for an investigation of any offence under the Act that the individual alleges has occurred or is occurring.¹⁰¹

The chief conservation officer must provide reports on the progress of the investigation to the applicant in accordance with the regulations every 90 days and the action, if any, that the chief conservation officer has taken.¹⁰²

The chief conservation officer may discontinue an investigation if the chief conservation officer is of the opinion that:

- the alleged offence does not require further investigation; or
- the investigation does not substantiate the alleged offence.¹⁰³

⁹⁷ s. 23 and s. 24

⁹⁸ s. 25

⁹⁹ s. 26

¹⁰⁰ s. 28(2)

¹⁰¹ s. 30

¹⁰² s. 32

If an investigation is discontinued, the chief conservation officer must send a copy of the written statement of the reasons for the discontinuation to the applicant and to any person whose conduct was investigated.¹⁰⁴ A copy of the statement sent to a person whose conduct was investigated must not disclose the name or address of the applicant or any other personal information about the applicant.¹⁰⁵

(f) Confidentiality¹⁰⁶

For the purposes of the *Freedom of Information and Protection of Privacy Act*, information that was obtained under the Act from the operator of a regulated operation whether or not the information was supplied to the government, is deemed to have been supplied to the government implicitly or explicitly in confidence, if it is

- information with respect to a trade secret, of the operator or another person, or
- commercial, financial, labour relations, scientific or technical information of the operator or another person.¹⁰⁷

(g) Regulations

Bill 18 permits regulations to be made¹⁰⁸, including regarding:

- regulated operations and reporting operations¹⁰⁹;
- compliance units;

¹⁰³ s. 34(1)

¹⁰⁴ s. 34(2)

¹⁰⁵ s. 34(3)

¹⁰⁶ This paper was finalized on April 25, 2008 before the Third Reading of Bill 18. It is expected that the same confidentiality language seen in the amended Bill 16 will eventually be included in Bill 18 as well.

¹⁰⁷ s. 36

¹⁰⁸ ss. 38-44

¹⁰⁹ Some of the proposed regulation powers are broad and may attempt to regulate operations outside B.C. Regulations may be made deeming greenhouse gas emissions that occur outside British Columbia as attributable to a regulated operation in B.C. and in relation to electricity, deeming greenhouse gas emissions associated with the generation and transmission of the electricity until the point at which the electricity is received by the British Columbia electricity grid (See s. 38(c)). An example here may be the purchase of coal fired energy from Alberta.

- the compliance unit tracking system;
- administrative penalties;
- appeals;
- inspections;
- other specified matters.

Bill 18 will provide the authority to set a hard cap on GHG emissions for designated large emitters in B.C. B.C. is the first Canadian province to introduce legislation authorizing “hard” caps on GHGs.

Unfortunately, at this point, Bill 18 does not say how high or low the cap will be, what industries or companies will be covered, or what will qualify as an offset. There is no hint whether GHG allowances will be auctioned off or allocated. There is also the bigger question of how the B.C. system will mesh with its commitment to its partners in the WCI. In the result, it is difficult to advise industry on what practical options are available. That is creating a lot of uncertainty for B.C. business, waiting while Bill 18 is still being debated and regulations have yet to be introduced.

7. Emissions Standards

The *Greenhouse Gas Reduction (Emissions Standards) Statutes Amendment Act* (Bill 31)¹¹⁰ was introduced on April 17, 2008. Bill 31 proposes major amendments to the *Environmental Management Act* (B.C.), the *Forest Act* (B.C.), and the *Forest and Range Practices Act* (B.C.). In force by regulation of the Lieutenant Governor in Counsel.

(a) *Environmental Management Act* (B.C.)

Some major amendments are proposed to the *Environmental Management Act* (B.C.) to bring it in line with the other GHG legislation introduced over the last year.

¹¹⁰ Bill 31, *Greenhouse Gas Reduction (Emissions Standards) Statutes Amendment Act*, 4th Sess., 38th Leg., British Columbia, 2008 <http://www.leg.bc.ca/38th4th/1st_read/gov31-1.htm>

“Greenhouse gas” will have the same meaning as in the *GHG Act*.¹¹¹

An entire section “Part 6.1 — Greenhouse Gas Reduction” is added and directed to the reduction of greenhouse gases by:

- requiring that greenhouse gases from waste management facilities be managed in accordance with the regulations;
 - the Lieutenant Governor in Council may make regulations prescribing actions that must be taken in relation to either or both the management or reduction of specified greenhouse gases, and/or the recovery of energy potential from specified greenhouse gases;
- prohibiting the introduction of prescribed greenhouse gases from coal-based generating facilities¹¹² into the environment, unless a carbon dioxide equivalent¹¹³ amount of GHG from the facility is captured and stored, or captured and sequestered;
- requiring new electricity generating facilities¹¹⁴ and recently expanded electricity generating facilities to match their emissions of greenhouse gases, other than those that are captured and stored, or captured and sequestered, with emission offsets¹¹⁵;
- adding inspection powers in relation to emissions from coal-based generating facilities and other electricity generating facilities.¹¹⁶

¹¹¹ s. 1

¹¹² "coal-based generating facility" means a facility that is prescribed by regulation as a coal-based generating facility;

¹¹³ "carbon dioxide equivalent" means the mass of carbon dioxide that would produce the same global warming impact as a given mass of another greenhouse gas, as determined in accordance with the regulations;

¹¹⁴ "new electricity generating facility" means an electricity generating facility that is not an existing electricity generating facility;

¹¹⁵ "emission offset" means an emission offset, as established, approved or recognized under the regulations for the purpose of (a) reducing or avoiding greenhouse gas emissions into the atmosphere, or (b) removing greenhouse gas from the atmosphere;

¹¹⁶ s. 2

- administrative penalties imposed for automatic administrative penalties and decisions of the Lieutenant Governor in Council or the minister are not appealable to the EAB;¹¹⁷
- administrative penalties imposed for failure to apply emission offsets as decisions that may be appealed to the EAB;¹¹⁸
- allows a restraining order to be made for a contravention of the requirements relating to the management of greenhouse gases;¹¹⁹
- establishes that a person convicted of an offence is liable to a fine of not more than \$200,000 or imprisonment for a maximum of 6 months, or both for these offences under the Act:
 - hazardous waste storage and disposal;
 - transportation of hazardous waste;
 - packaging, product containers and disposable products;
 - control of air contaminants;
 - confidentiality regarding coal-based electricity generation or electricity generation;
 - spill prevention and reporting;
 - confidentiality; and,
 - motor vehicle and engine emission regulations;¹²⁰
- establishes that a person convicted of an offence is liable to a fine of not more than \$1 million or imprisonment for a maximum of 6 months, or both for these offences under the Act:

¹¹⁷ s. 4

¹¹⁸ s. 8

¹¹⁹ s. 6

¹²⁰ s. 11

- waste disposal;
- hazardous waste regarding confinement;
- hazardous waste disposal facility;
- hazardous waste storage and disposal;
- management of greenhouse gases at waste management facilities;
- coal-based generating facilities regarding requiring greenhouse gases to be stored or sequestered;
- compliance reports regarding coal-based generating facilities; and,
- compliance reports regarding electricity generating facilities;¹²¹ and,
- adds regulation-making authority;¹²²

It should be noted that the same general language from Bill 18 regarding administrative penalties, offences, appeals, and confidentiality is used here. It is expected that the confidentiality provisions will be amended to reflect the language in Bill 16.

(b) *Forest Act* (B.C.)

Some proposed amendments are as follows:

- provides for Crown timber to be harvested under a forest licence for the production of bioenergy¹²³ and sets out the process for direct awarding of the forest licence;¹²⁴
- provides for the regional manager or district manager to enter into a fibre supply licence to cut with the applicant of an approved bioenergy application, if, in the

¹²¹ s. 11

¹²² s. 2 and s. 10

¹²³ "bioenergy" means energy derived from Crown timber;

¹²⁴ s. 15

opinion of the minister, Crown timber is required to facilitate the production of bioenergy as specified;¹²⁵.

- provides for the regional manager or district manager to enter into a forestry licence to cut with an applicant of an approved bioenergy application for the purpose of allowing the applicant to achieve the commercial operation date or to supply the power facility with Crown timber until timber is obtained under the forest licence;¹²⁶ and,
- sets out the process for entering into a fibre supply licence to cut.¹²⁷

8. Green Communities

BC has also amended some minor pieces of legislation to support its climate change initiatives. The *Local Government (Green Communities) Statutes Amendment Act, 2008* (Bill 27)¹²⁸ was introduced on April 15, 2008. Bill 27 focuses on GHG emissions reduction targets in planning documents, consultation plans, off-street parking reserve funds, annual reserve fund reporting requirements and development cost charge bylaws.

The legislation requires municipalities to include reduction targets and actions in their official community plans. It also gives local governments guidelines to create more compact neighbourhoods, with a stronger focus on energy conservation and GHG reduction.

Bill 27 amends five pieces of legislation. The *Local Government Act* is amended to:

- add a definition of "greenhouse gas" as having the same meaning as in the *GHG Act*.¹²⁹
- add a requirement to the 20 year regional growth strategy, so that this strategy must include targets for the reduction of GHG emissions in the regional district and

¹²⁵ s. 16

¹²⁶ s. 18

¹²⁷ s. 20

¹²⁸ Bill 27, *Local Government (Green Communities) Statutes Amendment Act*, 4th Sess., 38th Leg., British Columbia, 2008 <http://www.leg.bc.ca/38th4th/1st_read/gov27-1.htm>

¹²⁹ s. 11

policies and actions proposed for the regional district on how to achieve those targets.¹³⁰

- require an official community plan to include targets for the reduction of GHG emissions and policies and actions of the local government proposed with respect to achieving those targets.¹³¹
- permit an official community plan to designate development permit areas for the purposes of promoting: energy conservation, water conservation or the reduction of GHG emissions.¹³²
- add a definition of "eligible development" to include: not-for-profit rental housing, including supportive living housing, for-profit affordable rental housing, a subdivision of small lots that is designed to result in low GHG emissions or a development that is designed to result in a low environmental impact.¹³³

Additional statutes are also included. Bill 27 amends the *Community Charter* to add transportation infrastructure that supports walking, bicycling, public transit or other alternative forms of transportation as a valid purpose for which money from a municipal off-street parking reserve fund is to be used.¹³⁴

The Greater Vancouver Sewerage and Drainage District Act is amended to add a definition of "eligible development" to include: not-for-profit rental housing, including supportive living housing, for-profit affordable rental housing, a subdivision of small lots that is designed to result in low GHG emissions or a development that is designed to result in a low environmental impact.¹³⁵

¹³⁰ s. 14

¹³¹ s. 20

¹³² s. 23

¹³³ s. 27

¹³⁴ s. 1

¹³⁵ s. 2

Bill 27 amends the *Greater Vancouver Water District Act* to permit the Greater Vancouver Water District to generate and sell power to third parties.¹³⁶

The *Vancouver Charter* is amended to:

- add a definition of "greenhouse gas" as having the same meaning as in the *GHG Act*,¹³⁷ and,
- require official development plans to include targets for reducing GHG emissions and proposed policies and actions for achieving those targets.¹³⁸

Municipalities will have to achieve a balance between producing and using carbon. Failure to achieve carbon neutrality could mean municipalities lose access to provincial grants, services and programs.

9. Pine Beetle Impacts

Who saw this coming?

A story broke on April 23, 2008 raising the alarm that B.C.'s forests are a huge **source** of carbon pollution, rather than, as previously thought, the carbon **sink** for the world. The reason is a bug the size of a grain of rice- *Dendroctonus ponderosae*, or the mountain pine beetle.

A study, to be featured in the very reputable science journal *Nature*, calculates it will be much harder for Canada to meet global efforts to reduce greenhouse gas emissions when a huge section of B.C. forests is producing carbon dioxide. Werner Kurz, a senior research scientist with the Canadian Forest Service of Natural Resources Canada, estimates that, from 2000 to 2020, 270 megatonnes of carbon will be lost from B.C.'s pine beetle infected forests.¹³⁹ That is the same amount of carbon produced by Canada's entire transportation sector over a five-year period.

¹³⁶ s. 10

¹³⁷ s. 37

¹³⁸ s. 38

¹³⁹ "Beetle tree kill releases more carbon than fires: Canada's beetle infestation is turning some forests into carbon sources, *Naturenews*, <<http://www.nature.com/news/2008/080423/full/news.2008.771.html>>

Mr. Kurz also made these comments:

“This [pine beetle] impact converted the forest from a small net carbon sink to a large net carbon source both during and immediately after the outbreak.”

“The impact of the mountain pine beetle on B.C. is so large that the release of carbon dioxide in the affected areas is greater than the uptake of all the forest of B.C. together.”

“The beetles are the driving force and we anticipate the forests will remain a carbon source for the next decade.”¹⁴⁰

Mr. Kurz suggests the only way to combat the problem is to log most of the dead trees and replant new ones as quickly as possible.

So how will this news affect B.C.’s new climate change plans and the complicated calculations they are based on. Things remain uncertain in that regard. What has become certain is that for this year, B.C.’s GHG emissions have effectively doubled overnight. How that affects months and years of planning and is anyone’s guess.

It appears that B.C. will argue that the new pine beetle information should not be taken into consideration. The argument is that pine beetles are akin to an “Act of God” and not caused by any local human action. The result is that any GHG produced should not be factored into its climate change accounting.

A contrary argument is that B.C. forest management may have caused and contributed to the problem. That theory is based on two points. First, decades of aggressive forest fire fighting allowed the lodgepole pine stands to spread uninterrupted through the Interior. Second, the government failed to attack the pine beetle aggressively when it first began to spread in portions of Tweedsmuir Park.¹⁴¹ There may be some truth to the second point at least since BC Parks is on record describing its pine beetle fighting efforts with qualified

¹⁴⁰“Pine beetle outbreak adds to greenhouse gas woes” *CBCnews.ca*, (April 23, 2008), <<http://www.cbc.ca/technology/story/2008/04/23/tech-beetle-carbon.html>>

¹⁴¹ Patrick Brethour, “Tiny beetle tramps over emission targets” *The Globe and Mail* (April 25, 2008) B2

language like the first large mountain pine beetle outbreaks were “managed to the best of agencies abilities” and “managed within the provisions of legislation.”¹⁴²

In any event, you might not hear any time soon, the B.C. government bragging about the significant role that its forests play in helping to reverse global climate change.

B. ALBERTA

1. GHG Regulatory Framework

*(a) Climate Change and Emissions Management Amendment Act*¹⁴³

On April 20, 2007, the Alberta government passed the *Climate Change and Emissions Management Act* (“CCEMA”)¹⁴⁴. The specified gas emission target for Alberta is a reduction by December 31, 2020 of specified gas emissions relative to Gross Domestic Product to an amount that is equal to or less than 50% of 1990 levels.¹⁴⁵

Interestingly, the Minister’s actions will be restricted when it comes to interacting with other jurisdictions outside Alberta (i.e. WCI) on GHG reduction initiatives. The Minister is expressly prohibited from entering into any agreement with other jurisdictions unless the agreement is consistent with the specified gas emission target for Alberta (i.e. 50% of 1990 levels by 2020).¹⁴⁶

One of the main features of the CCEMA is the establishments of the Climate Change and Emissions Management Fund (“Fund”).¹⁴⁷ Several key purposes related to reducing emissions of specified gases or improving Alberta’s ability to adapt to climate change are:

- demonstration and use of specified gas capture, use and storage technology;

¹⁴² BC Parks, “*Mountain Pine Beetle and Provincial Protected Areas Frequently Asked Questions*”, <http://www.env.gov.bc.ca/bcparks/conserves/pine_beetle/pine_beetle.html#q2>

¹⁴³ *Climate Change and Emissions Management Act*, S.A. 2007, c. 16.7 <http://www.qp.gov.ab.ca/documents/Acts/C16P7.cfm?frm_isbn=9780779723386>

¹⁴⁴ *Climate Change and Emissions Management Act*, S.A. c. 16.7, <http://www.qp.gov.ab.ca/documents/Acts/C16P7.cfm?frm_isbn=9780779723386>

¹⁴⁵ s. 3(1)

¹⁴⁶ s. 8

¹⁴⁷ s. 10

- development of opportunities for removal of specified gases from the atmosphere through sequestration by sinks¹⁴⁸; and,
- measurement of the natural removal and storage of carbon.

These purposes will be discussed later in this paper as they have become the crux of Alberta's plans or hopes to reduce GHG emissions.

Authority is provided for administrative penalties¹⁴⁹ as well as keeping confidential information that is commercial, financial, scientific or technical information that would reveal proprietary business, competitive or trade secret information about a specific facility, technology or corporate initiative.¹⁵⁰

The main regulation passed under the CCEMA is the *Specified Gas Emitters Regulation*¹⁵¹ ("*Emitters Reg*"). This is the core of Alberta's legislative attempts to combat climate change.

(b) *Specified Gas Emitters Regulation*

The focus of the *Emitters Reg* is on large industry (approximately 100 facilities within Alberta), that together make up about 70 % of Alberta's industrial emissions. Starting July 1, 2007, all facilities with direct emissions¹⁵² totalling 100 000 tonnes or more in a year must reduce their emissions intensity¹⁵³ by 12 %.¹⁵⁴ This is the cap in a typical cap and trade system.

¹⁴⁸ "sink" means (i) a component of the environment that removes or captures specified gases from the atmosphere through natural processes and includes, without limitation, plants and soil, and (ii) a geological formation or any constructed facility, place or thing that is used to store specified gases;

¹⁴⁹ s. 38

¹⁵⁰ s. 59

¹⁵¹ *Specified Gas Emitters Regulation, Alta. Reg. 139/2007*, <http://www.qp.gov.ab.ca/documents/Regs/2007_139.cfm?frm_isbn=9780779725403>

¹⁵² "direct emissions" means the release of specified gases from sources actually located at a facility, expressed in tonnes on a CO₂e basis;

¹⁵³ "emissions intensity" means the quantity of specified gases released by a facility per unit of production from that facility;

¹⁵⁴ s. 3

(c) Options for Industry Compliance

(i) Make operating improvements

Ideally, industry can make improvements to their operations that will result in the required reductions. In that way the 12 % emissions intensity reduction can be achieved by efficiency alone. For example, a facility could install a more efficient boiler.

(ii) Buy emission offsets

Companies will be permitted to purchase emission offsets but there are limitations. The offsets are only valid if the GHG emissions reduction occurs in Alberta and is from an action taken that is not otherwise required by law at the time the action is initiated.¹⁵⁵ In other words, large emitters are permitted to invest in projects outside their operations that offset emissions on their behalf but the projects must be Alberta-based. For example, a facility may purchase offsets from a farming operation that has changed its tillage practices so as to release fewer GHG emissions compared to normal tillage practices. Prior to purchase, the offset reductions offered by an operation must be verified by a third party to ensure the emission reductions are real. Guidelines available from the province that outline how to quantify¹⁵⁶ and verify¹⁵⁷ emission reductions for different types of projects.

(iii) Buy Fund credits

Another compliance option available for companies is to pay \$15 for every tonne over their reduction target.¹⁵⁸ The money will be put into the Fund, which will be directed to strategic projects and technology aimed at reducing GHG emissions in Alberta. The Fund is dedicated to developing infrastructure to reduce emissions or to support research into

¹⁵⁵ *Emitters Reg*, s. 7

¹⁵⁶ Alberta Environment, “*Specified Gas Emitters Regulation: Offset Credit Project Guidance Document*” (February 2008), <http://environment.alberta.ca/documents/Guidance_Document_Alberta_Offsets_v1.2_Feb_08.pdf>

¹⁵⁷ Alberta Environment, “*Specified Gas Emitters Regulation: Offset Credit Verification Guidance Document*” (September 2007), <http://environment.alberta.ca/documents/Verification_Document_Alberta_Offsets_v1_Sept_07.pdf>

¹⁵⁸ *Emitters Reg*, s. 8

innovative climate change solutions. Estimates are that payments into the Fund could be up to \$177 million/year.

(iv) Buy emission performance credits

If a facility can beat its applicable net emissions intensity limit, the reduction in specified GHG emissions that is not used can become emission performance credits and can be sold to another company that cannot meet its target. Emission performance credits can be used in a subsequent year or sold and used at another facility.¹⁵⁹ In other words, a facility can purchase credits from large emitters that have reduced their emissions intensity beyond their 12 % target. Regulated emitters can buy and sell credits on an Alberta based carbon market.

While Alberta was the first province in Canada to require large industries to report their GHG emissions¹⁶⁰, it has been criticized for not going far enough on GHG reductions. Alberta's 12 % reductions are based on "emissions intensity" and are not an absolute cap on GHG emissions. Emissions intensity is a measure of the quantity of GHGs released by a facility per unit of production. It is quite feasible, especially in a growing economy like Alberta, that individual emission limits per unit of production can be lowered, but if production increases, the overall amount of GHG emissions can increase substantially. Some say that Alberta's 50 percent intensity target could be met even while absolute emissions in the province rise to 60 percent to 80 percent above 1990 levels.¹⁶¹

Another criticism is that only the large final emitters are caught by the legislation and 30% of Alberta's GHG emitters are ignored (i.e. facilities that emit less than 100,000 tonnes of GHGs a year).

¹⁵⁹ *Emitters Reg*, s. 9

¹⁶⁰ "Specified Gas Reporting Regulation", Alta. Reg. 251/2004, <http://www.qp.gov.ab.ca/documents/Regs/2004_251.cfm?frm_isbn=077973419X>

¹⁶¹ Matthew Bramley, "An Assessment of Alberta's Climate Change Action Plan", The Pembina Institute (September 2002), <http://pubs.pembina.org/reports/plan_critique020906.pdf>

When it comes to enforcement, Alberta is seen to be soft as well. The *Administrative Penalty Regulation*¹⁶² limits the maximum administrative penalty to \$5000 for each contravention.¹⁶³

2. 2008 Climate Change Strategy¹⁶⁴

In January 2008, the Alberta government released its action plan to address climate change. Alberta's emissions are projected to grow to 400 million tonnes by 2050, largely due to forecasted growth in the oil sands sector. That is roughly **double** the GHGs currently being emitted. The main goal of Alberta's 2008 Climate Change Strategy is to cut the projected 2050 emissions by 50 %, with much of the reduction coming from oil sands activities. The focus is going to be on three broad themes:

- carbon capture and storage;
- consumer incentives; and,
- greener energy production.

Together these initiatives are intended to deliver a 50 % reduction in emissions by 2050 compared to business as usual or a 14 % reduction below 2005 levels.

(a) Implementing carbon capture and storage – 70% (139 megatonnes)

Alberta is the first jurisdiction in North America to direct dedicated funding to implement carbon capture and storage technology across industrial sectors. Analysis shows this technology could account for 70% of Alberta's emission reduction objectives by 2050.

The technology will capture CO₂ from industrial facilities, transport it by pipeline to suitable geologic formations (i.e. deep brine zones), and inject it underground. Carbon capture and storage is proven technology and can provide safe, long-term storage solution with tremendous emission reduction potential.

¹⁶²"*Administrative Penalty Regulation*", Alta. Reg 140/2007, <http://www.qp.gov.ab.ca/documents/Regs/2007_140.cfm?frm_isbn=9780779724918>

¹⁶³ s. 3

¹⁶⁴ Alberta's 2008 Climate Change Strategy (January 2008), <<http://environment.gov.ab.ca/info/library/7894.pdf>>

Power generation is the most significant source of emissions in Alberta and is ideally suited to carbon capture and storage. Alberta has optimal geology for the safe, long-term storage of CO₂. This technology could put oil sands producers on par with or better than conventional oil producers when it comes to GHG emissions.

Current challenge with this technology is price since it currently would cost approximately \$50-\$70/tonne of CO₂ for capture and storage. Compare that with \$15/tonne to purchase a Fund credit and it is easy to see where companies will focus in the immediate future.

The message here is that Alberta is going to expand their oils sands production and increase power demands. The difference is that they hope they can find technology to hide the CO₂ somewhere.

(b) Conserving and using energy efficiently – 12% (24 megatonnes)

The Alberta government will provide incentives for energy efficiency along with information to help Albertans reduce their GHG emissions. It will support municipalities and other groups in finding ways to reduce emissions, including land use planning. The provincial government will also conduct consultation and implement energy efficiency standards in building codes for homes and commercial buildings and implement strategies to help the agricultural and forestry sectors reduce emissions.

(c) Greening energy production – 18% (37 megatonnes)

In order to green energy production, Alberta will increase investment in clean energy technology. The province will do this by funding projects that will help reduce the cost of separating carbon dioxide from other emissions, supporting carbon capture and storage. Alberta will also support research on new oil sands extraction processes that use less energy, less water and reduce tailing ponds.

C. SASKATCHEWAN

The Saskatchewan Energy and Climate Change Plan was introduced in June of 2007.¹⁶⁵

¹⁶⁵ Saskatchewan Industry and Resources/Environment, News Release, “*New Plan Attacks Climate Change in Saskatchewan*” (June 14, 2007), <<http://www.gov.sk.ca/news?newsId=78e66c74-c0a2-4041-813f-54e666cdf591>>

The strategy sets ambitious targets to cut the province's GHG emissions by 32 % by 2020 and 80 % by 2050. The plan's main targets include:

- Stabilizing the level of GHG emissions in Saskatchewan by 2010;
- Reducing emissions by 22 tonnes per person by 2020, which translates to a 32 % reduction from 2004 levels; and,
- Reducing emissions by 80 % from 2004 levels by 2050, a decrease of 55 tonnes per capita.

The plan is built on five components, or “emissions reductions wedges” to enable Saskatchewan to move from an unchecked level of emissions and meet its 2020 and 2050 targets. These wedges include:

- Conservation and efficiency measures by industry, business and homeowners;
- Carbon dioxide capture and storage measures in Saskatchewan's oil and gas industry and in the province's electricity sector;
- Increased use of renewable energy, including wind, solar power and hydrogen, and further development of Saskatchewan's ethanol and biodiesel resources;
- Reduction of methane and other emissions in the oil and gas industry, and methane and nitrous oxide emissions in the agriculture industry; and,
- Creation of more natural carbon sinks in Saskatchewan's forests and soils.

Saskatchewan has joined the WCI as an observer, monitoring the work on common targets for emissions reductions, and participating where it can in discussions on shared approaches and actions to combat climate change.

Saskatchewan has proposed a local Technology Fund as well as a local Emissions Offset Fund, aiming to function within proposed federal legislation to ensure that the benefits of compliance measures taken by Saskatchewan organizations under the federal regime (via offset purchases or Technology Fund contributions) remain within Saskatchewan.

Saskatchewan currently has no legislation in relation to climate change.

D. MANITOBA

1. Climate Change Plan

Manitoba became a partner in the WCI in 2007. Manitoba, and its premier, Gary Doer, are considered world leaders on battling climate change. In its special issue on climate change in November 2005, Business Week magazine ranked Manitoba as the number one regional government in the world for battling climate change. The magazine also placed Premier Gary Doer in its list of the top 20 international leaders who are combating climate change.¹⁶⁶

In December 2005, Premier Doer co-hosted a Climate Leaders' Summit with Premier Jean Charest of Quebec during the United Nations Climate Change Conference in Montreal. The Summit resulted in the adoption of a *Declaration of the Federated States and Regional Governments on Climate (2005)* in which signatories recognize that "climate change is an urgent, global problem that requires a coordinated, collaborative response to reduce GHG emissions for the benefit of present and future generations."¹⁶⁷

Premier Gary Doer and California Governor Arnold Schwarzenegger signed a *Memorandum of Understanding between the Province of Manitoba, Canada and the State of California, United States of America (2006)* that will:

- support Manitoba efforts to adopt legislation that would include setting out goals for GHG reductions;
- explore the opportunity for Manitoba to participate in carbon-credit trading via the Clean Air Resources Board and the California Climate Action Registry;
- promote further trade partnerships between the two jurisdictions in the areas of low- and no-emission vehicle technology, most notably in the production of hybrid and hydrogen buses and the plug-in hybrid vehicle; and,
- continue to exchange best practices in areas such as renewable energy technology (solar power in California and geothermal in Manitoba), residential and commercial

¹⁶⁶ BusinessWeek, "Battling Climate Change" (December 12, 2005), <http://www.businessweek.com/magazine/content/05_50/b3963417.htm>

¹⁶⁷ http://www.gov.mb.ca/stem/climate/pdf/montreal_summit.pdf

building efficiency, waste reduction, and new transportation and agricultural initiatives to reduce greenhouse gases.¹⁶⁸

Premier Gary Doer and Premier Mike Rann of South Australia signed a memorandum of understanding (MOU) on April 9th, 2006. *The Memorandum of Understanding between the Province of Manitoba, Canada and the Government of South Australia, Australia (2006)* provides a general framework for co-operative activities in the following areas:

- public administration and governance;
- industry, trade and tourism;
- education and training;
- energy, science and technology;
- the environment and sustainability; and,
- social inclusion.¹⁶⁹

The Province of Manitoba, the Canadian Standards Association and the Canadian Climate Exchange signed a Letter of Agreement on April 20, 2007 to work together on a conceptual design for a web-based portal as the first phase of a Climate Change Registry in Manitoba. The three parties agree to work together on a variety of possible solutions including a web-based portal for the exchange of information about the supply of emission-reduction projects, demand from organizations wishing to reduce their GHG footprint, and eventual market-based solutions to provide a price signal and financial incentive for emissions reductions.¹⁷⁰

¹⁶⁸ http://www.gov.mb.ca/asset_library/en/premier/mou_california.pdf

¹⁶⁹ http://www.gov.mb.ca/asset_library/en/documents/premier/mou_mb_south_australia.pdf

¹⁷⁰ Manitoba Science, Technology, Energy and Mines, “*Leading the Way on Climate Change*”, <http://www.gov.mb.ca/stem/climate/mb_doing/lead_way.html>

2. Regulatory Framework

On Friday, April 11, 2008, Bill 15 was introduced in the Manitoba legislature, entitled "*The Climate Change and Emission Reductions Act*"¹⁷¹. Some highlights of Bill 15 are as follows:

- initial emissions reduction target set for Manitoba is to reduce emissions by December 31, 2012, to an amount that is at least 6% less than Manitoba's total 1990 emissions.¹⁷² Periodic reporting on Manitoba's progress is required in achieving those targets;¹⁷³
- owners and operators of landfills specified in the regulations are required to mitigate GHG emissions from their landfills;¹⁷⁴ and,
- Manitoba Hydro must restrict its burning of coal to emergency operations¹⁷⁵, and must also report on reducing or eliminating the use of petroleum-based diesel fuel to generate electricity in northern and remote communities.¹⁷⁶

Among other things, Bill 15 also provides for the establishment of:

- green building requirements¹⁷⁷ and green building operating and management standards for government buildings and buildings funded by the government¹⁷⁸;
 - building construction standards for the energy and water efficiency of buildings¹⁷⁹;
 - fuel efficiency standards for new vehicles acquired for use by the government¹⁸⁰;
- and,

¹⁷¹ Bill 15, *Climate Change and Emission Reductions Act*, 2nd Sess., 39th Leg., Manitoba, 2008 <<http://web2.gov.mb.ca/bills/sess/b015e.php>>

¹⁷² s. 3(1)

¹⁷³ s. 5(2)

¹⁷⁴ s. 15

¹⁷⁵ s. 16

¹⁷⁶ s. 17

¹⁷⁷ s. 7(1)

¹⁷⁸ s. 8

¹⁷⁹ s. 9(1)

- an advisory board that will recommend ways of improving the efficiency of new passenger vehicles and light-duty trucks sold or leased in Manitoba, and ways of reducing GHG emissions from them.¹⁸¹

Bill 15 will also amend *The Drivers and Vehicles Act* to restrict older vehicles being imported into Manitoba and resold¹⁸², and *The Highway Traffic Act* to provide for regulations permitting zero emission and other low-speed vehicles to be driven on Manitoba highways.¹⁸³

E. CONCLUSION

It is apparent that the four western provinces have very different populations, economies, natural resources, sources of power, and sources of GHG emissions. All are making very different efforts to combat climate change but none really address how their provincial policies will mesh with federal targets for Canada's **total** GHG emissions and proposed regulatory framework for GHG emissions. This will create a big challenge in building a unified front to combat climate change on a national level. The federal Finance Minister Jim Flaherty has already gone on the record to say he's not in favour of provinces taking patchwork action of any kind, instead preferring a national approach to cutting emissions linked to global warming.¹⁸⁴ This may raise serious division of powers questions down the road as well as the four western provinces further develop climate change legislation that is all different and none of which appears to coincide with federal initiatives.

As well, none of the four western provinces (or Canada either for that matter) really address how their provincial policies will mesh with Kyoto. They all use different baselines and years of reference and all have different reduction targets. Their GHG reduction goals are very difficult to compare for that reason.

¹⁸⁰ s. 11(1)

¹⁸¹ s. 13(2)

¹⁸² s. 21

¹⁸³ s. 22

¹⁸⁴ Kirsten McMahon, "To carbon tax or not to carbon tax", Canadian Lawyer (April 2008), <<http://www.canadianlawyermag.com/index.php?option=content&task=view&id=285>>