

# A CARBON BUDGET FOR CANADA

A COLLABORATIVE FRAMEWORK FOR FEDERAL AND PROVINCIAL  
CLIMATE LEADERSHIP

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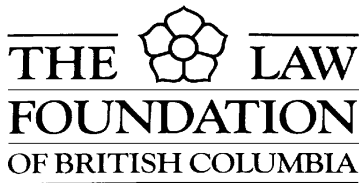


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## Summary

Climate change is one of the biggest challenges faced by the world today. Each year, the world emits more fossil fuel pollution and other greenhouse gases – more than the world’s natural systems can absorb – creating a heat trapping blanket around the world and disrupting global weather patterns.

Canada has not, unfortunately, played a leadership role on addressing the impacts of climate change. Successive Canadian, and in many cases provincial, governments have paid lip-service to reducing greenhouse gas emissions, while failing to develop a clear plan to do so.

The election of a new Canadian government represents an opportunity to set a new course on climate change. The Liberal Party of Canada’s election campaign did not propose specific national legislation or policy tools, but instead promised to allow provinces to adopt their own approaches, with the federal government playing a collaborative role, providing coordination and support.

How might such coordination take place and what are the respective roles of the federal and provincial governments? The purpose of this paper is to propose an overarching legal planning framework that will help guide federal and provincial governments in developing and implementing laws, policies and tools that work at both a provincial and national level. Without such a framework, each province, and the federal government, risk making decisions that are inconsistent with efforts in other provinces and which do not result in a national approach.

Key elements of the framework we propose are:

### **Carbon Budgets**

Increasingly, scientists are talking about a global carbon budget – an amount of greenhouse gases that can be emitted over a particular time while still achieving a target. However, setting short- and mid-term national and provincial carbon budgets facilitates easy comparison and coordination between provincial targets and a national target, as well as aiding in planning.

A carbon budget approach adopted in the United Kingdom has allowed that country to achieve impressive greenhouse gas reductions of 23% reduction in GHG emissions in 2012 relative to 1990 levels. The UK is on track to deliver a 35% reduction relative to 1990 levels by 2020. By contrast, Canada’s current national target is a 2% increase over 1990 levels by 2020, and we are not expected to achieve it.

### **Science Committee**

A national science committee, with representatives from each of the provinces, should advise Canada’s governments on how setting carbon budgets and planning to reduce greenhouse gases, as well as evaluating progress towards achieving those budgets.

Canada has experience with using independent expert bodies to advise government, and climate change is a politically charged, highly technical issue which calls out for such advice. The Committee on the Status of Endangered Wildlife in Canada (COSEWIC), set up by the provincial governments working with the federal government, but now a key part of federal legislation related to Species At Risk, provides an important model of how an expert body can include representation from the provinces and enhance federal-provincial cooperation.

### **Carbon Budget Planning**

Carbon budgets are only valuable if governments work to meet them. With coordination from Environment Canada, each province and the federal government must develop and implement carbon budget implementation plans which will demonstrate how their carbon budgets will be met. Carbon budgets can easily be broken down into sub-budgets, allowing for detailed planning at a sector, or government agency, level. Carbon budget plans should fully “cost” the different sources of emissions, demonstrating that the measures undertaken are likely to deliver on the carbon budgets at the relevant points in time.

### **Accountability and Incentives**

All levels of government should have real incentives to implement their plans and meet their carbon budgets.

Regular reporting of government progress towards achieving carbon budgets, including audits by the independent Science Committee, will allow the public to hold their governments accountable to the carbon budgets.

Governments should enact laws requiring carbon budgets to be considered in any relevant government decisions and in the context of any new government laws or policies.

Finally, the new government’s promise of financial assistance suggests an approach, modelled on the *Canada Health Act*, in which federal funding is available based on each province’s effective and good faith participation in the carbon budget framework.

Together these components provide a framework that can help coordinate provincial and federal action on climate change that is science-based and transparent. We believe that federal-provincial coordination on climate change can result in a strong, national commitment to fighting climate change, but only if it takes place in the context of a credible national framework. We offer this report as a contribution to the discussion on how to achieve such a framework.

## Summary of Recommendations:

- 1. Set annual national and provincial budgets for a rolling 15 year period based on Canada's long-term goals, the advice of the Scientific Committee and on the goal of meeting or exceed Canada's fair share in a global emissions budget is sufficient to prevent dangerous climate change.**
- 2. That the federal government, in conjunction with the provincial governments, create a permanent and independent national Science Committee charged with advising all levels of government on greenhouse gas reduction targets, budgets, planning and implementation, and with evaluating progress towards achieving those targets and budgets. This Science Committee should include representatives nominated by the provinces.**
- 3. Environment Canada should lead a process in which each province and the federal government develops and adopt carbon budget implementation plans, demonstrating how their carbon budgets and the national carbon budget will be achieved. Such plans should fully "cost" the different sources of emissions, demonstrating that the measures undertaken are likely to achieve the carbon budgets at the relevant points in time. Where it becomes clear that budgets will not be met, the process must provide for the updating of the budget implementation plans.**
- 4. Federal and provincial governments, and the Science Committee, should report publicly on a regular basis on progress towards achieving carbon budgets and on the implementation of carbon budget plans.**
- 5. Federal and provincial governments should amend their laws to ensure that carbon budgets, and carbon budget implementation plans, are incorporated into all relevant government decisions.**
- 6. Federal and provincial governments should enact laws requiring the evaluation of the impact of any new laws or policies on the government's ability to meet its carbon budgets.**
- 7. Based on the model of the *Canada Health Act*, the federal government should provide funding to the provinces based on their effective and good faith participation in the carbon budget framework.**



## Part I - Introduction

Climate change is one of the biggest challenges faced by the world today. Each year, the world emits more fossil fuel pollution and other greenhouse gases – more than the world’s natural systems can absorb – creating a heat trapping blanket around the world. With the global atmosphere capturing and retaining more solar radiation, global temperatures are increasing, disrupting global weather patterns and causing widespread harm.

The impacts of climate change are already being seen around the world. Glaciers, permafrost and Arctic sea ice are melting, oceans are becoming increasingly acidic (an effect caused by increased carbon dioxide in the atmosphere), ecosystems are changing, and areas of extreme drought are increasing. Freshwater, a resource many of us take for granted will become even more limited, land that once sustained whole communities will become unproductive, and more people will die from heat waves, floods and diseases like malaria.

Canada has not, unfortunately, played a leadership role on addressing the impacts of climate change. In the early 1990s, when governments around the world began grappling with climate change, Canada played a leadership role, signing the resulting Kyoto Protocol in 1997. However, since then successive Canadian, and in many cases provincial, governments have paid lip-service to reducing greenhouse gas emissions, while failing to develop a clear plan to do so.

Instead of reducing Canada’s greenhouse gas emissions, those emissions have risen substantially since Canada signed the Kyoto Protocol, until relatively recently, when a combination of an economic downturn and actions taken primarily at the provincial level has resulted in a small reduction in emissions.

The election of a new Canadian government represents an opportunity to set a new course on climate change.

Most environmental organizations have called for national level leadership, with nationally-set targets, a national carbon price, and other measures implemented Canada wide. Discussions about the legal tools to reduce GHG emissions often focus on specific national laws, policies and incentives that drive reductions in the emissions, such as carbon pricing,<sup>1</sup> energy efficiency, use of renewables and various other measures can achieve these goals.

Canada’s environmental community has generally looked to the federal government for leadership on climate for several reasons:

- Getting strong climate change legislation past Parliament was viewed as preferable to having to press for strong laws in each of the Provincial Legislatures;
- Action by the federal government can avoid issues of inconsistent approaches and targets being taken by different provinces (which is, indeed, occurring in the absence of meaningful federal action);

<sup>1</sup> We discussed the legal basis for carbon pricing at length in our voluminous *Turning Down the Heat*, as early as 1998.

- Canada, as signatory to international agreements and responsible for future negotiations on climate change, was viewed as ultimately having responsibility for meeting our international obligations on this issue; and
- Several industries that are major sources of emissions, such as the aeronautics and shipping industries, are federally regulated and (as discussed below) it would be difficult for provincial legislation to regulate emissions from such industries.

However, the Liberal Party election campaign has not proposed specific legislated or policy tools, but instead promises to allow provinces to adopt their own approaches, with the federal government playing a collaborative role, providing coordination and support.

We will ... partner with provincial and territorial leaders to develop real climate change solutions, consistent with our international obligations to protect the planet, all while growing our economy. Together, we will attend the Paris climate conference, and within 90 days formally meet to establish a pan-Canadian framework for combatting climate change.

We will work together to establish national emissions-reduction targets, and ensure that the provinces and territories have targeted federal funding and the flexibility to design their own policies to meet these commitments, including their own carbon pricing policies.<sup>2</sup>

It is important to emphasize that the type of “pan-Canadian framework for combatting climate change” proposed is not necessarily weaker than a federal-government mandated climate change plan. However, this approach does pose a number of challenges, not the least of which is how to ensure that the diverse efforts of provinces come together into a coherent, transparent and sufficiently ambitious framework that will meet Canada’s “international obligations to protect the planet...”

How might such coordination take place and what are the respective roles of the federal and provincial governments? Leadership on an issue as important as climate change should not be ad hoc. Rather, it is essential that there are clear and transparent structures and roles.

The purpose of this paper is to propose an overarching legal planning framework that will help guide federal and provincial governments in developing and implementing laws, policies and tools that work at both a provincial and national level. Without such a framework, each province risks making decisions that are inconsistent with efforts in other provinces and which do not result in a national approach. It is also possible that there will be gaps and missed opportunities in climate regulations.

How might ... coordination take place and what are the ... roles of the federal and provincial governments?



<sup>2</sup> Liberal Party of Canada. New Plan for a Strong Middle Class. (2015), p. 39, available on-line at <https://www.liberal.ca/files/2015/10/New-plan-for-a-strong-middle-class.pdf>, last accessed October 21, 2015.



This proposal is consistent with commitments made by the incoming Liberal government, and we offer it as one suggestion as to how such a national framework might work. A *Carbon Budget for Canada* draws upon several sources, including the *Canada Health Act*, Canadian national laws and policies concerning science-based decisions, and the United Kingdom's *Climate Change Act 2008* (adapted to the Canadian context). We are seeking a framework which is science-based, transparent and will allow provincial governments to work collaboratively with the federal government to create a strong national greenhouse gas targets.

Part II discusses the constitutional and policy context for the framework, including the role of federal and provincial governments in addressing climate change, and some of the actions that have been taken to coordinate between the federal and provincial governments.

Part III examines past greenhouse gas reduction targets set by Canada's federal and provincial governments and considers whether the carbon budgeting approach adopted in the United Kingdom might facilitate better coordination between provincial targets.

Part IV proposes the creation of a national scientific body, based on lessons learned from current and past federal and provincial expert bodies, to advise Canada's federal, provincial and (if desired) other levels of government on setting greenhouse gas reduction targets and achieving those targets;

Part V examines the track record of Canadian governments in achieving (and failing to achieve) their greenhouse gas reduction targets, and how the carbon budget approach can facilitate planning on how to meet those targets; and

Part VI examines mechanisms that can encourage governments to fully implement their carbon budget implementation plans and achieve their targets, including requirements around transparency, consideration of carbon budgets into government decision-making and the use of federal funding, modelled on the *Canada Health Act*, to encourage implementation of the plans.

## Part II – Provinces and Federal Roles in Planning for Climate Change

To build a national climate change framework that respects the roles of the provinces requires some understanding of the respective roles of each level of government in addressing climate change, and an understanding of other models that have been used to facilitate federal provincial cooperation. This part will review briefly the respective federal and provincial powers related to climate change and will discuss generally existing models for inter-provincial, or federal-provincial, cooperation that help to inform these discussions.

### Constitutional Powers and Climate Change

So which level of government in Canada is responsible for climate change? On the one hand, the global atmosphere is international, which might favour a national response. On the other, the provinces manage a wide range of activities that result in greenhouse gas emissions, and which are impacted by climate change.

The Supreme Court of Canada has observed, in relation to the environment:

[T]he *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 of power assigned to the respective levels of government.<sup>3</sup>

In that decision, Justice La Forest noted that the environment is “a constitutionally abstruse matter which does not comfortably fit within the existing division of powers without considerable overlap and uncertainty.”<sup>4</sup>

S.L. Hsu & R. Elliot, in examining the ability of Canada’s governments to address climate change, explain:

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 both federal and provincial legislation designed to protect the physical environment. They have been able to do so in part because of their willingness to permit Parliament and the provincial legislatures to rely on their respective jurisdictions over both *causes* and *effects* of polluting activities. 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 paragraph 92(10)(a). It can also regulate polluting activities that harm the fisheries and the waters of the territorial sea because it has jurisdiction over “seacoast and inland fisheries” and the territorial sea under subsection 91(12) and the POGG power, respectively. Similarly, it is

<sup>3</sup> [1992] 1 S.C.R. 3 at 63, 88 D.L.R. (4th) 1 [*Oldman River*].

<sup>4</sup> *Ibid.*, p. 64.

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 subsection 92(13). 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 subsections 92(5) and 92(13), and/or 92(16), respectively.

The courts’ willingness to approach the validity of environmental protection legislation in this manner contributes greatly 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 the effects.<sup>5</sup>

A number of commentators have noted that the federal government likely has broad powers to enact legislation related to climate change. Noted constitutional scholar, Peter Hogg, has expressed the view, consistent with Supreme Court of Canada litigation about other environmental matters, that the Criminal Law power could provide the basis for such a power.<sup>6</sup> Hsu and Elliot point to both the criminal law power and the general “Peace, Order and Good Government” power.<sup>7</sup> Questions as to the constitutionality of federal climate change legislation raised by the Alberta government in 2009 appear to be more about political positioning than constitutional law.<sup>8</sup>

The role of the provincial governments to regulate on some aspects of climate change also appears to be well established. As Hsu and Elliot note, it is well established that the provincial government powers over “property and civil rights” extend to the regulation of pollution.

[I]t 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 subsection 92(13). 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 subsections 92(5) and 92(13), and/or 92(16), respectively.<sup>9</sup>

5 Hsu, S.L. and R. Elliot. *Regulating Greenhouse Gas Emissions in Canada: Constitutional and Policy Dimensions*, 54 McGill L.J. 463 (2009), pp. 479-80.

6 P. Hogg, A Question of Parliamentary Power. C.D. Howe Institute Backgrounder No. 114 (August 2008).

7 Hsu, above, note 5.

8 <http://www.torlys.com/about/news/2009/04/alberta-is-getting-ready-to-launch-a-constitutional-battle-if-the-federal-government-institutes-more-aggressive-target>, last accessed 6 November 2015. On the other hand, the Environmental Law Centre of Alberta in 2003 published a strong critique of the constitutionality of Alberta legislation intended to insulate its climate change legislation from the effect of future federal legislation: <http://www.elc.ab.ca/ContentFiles/Files/NewsBriefs/Vol.18No.12003.pdf>, last accessed 6 November 2015.

9 Hsu, above note 5 at p. 480.

That being said, there are some exceptions. The most important for the purposes of this paper is the inability to regulate the core of federal works and undertakings, federal lands, reserve lands, and certain other federally controlled industries or lands. Notably:

- provinces cannot regulate anything going to the core of shipping or the airline industry – both major sources of air emissions. In addition, emissions associated with activities that cross provincial borders may also be better regulated by the federal government. These industries, if their GHG emissions are to be regulated at all, will require federal regulation and there does not appear to be any other way around that under Canada’s constitution.
- If the federal government regulates greenhouse gases any provincial regulation cannot be inconsistent with this regulation. Federal and provincial laws will be “consistent” if a regulated industry can comply with both levels of government. Consequently, there is nothing stopping the provinces from adopting more stringent GHG standards.
- The provinces cannot pass laws about what happens outside their borders. However, provincial laws can take account of laws and systems that are created beyond the province’s borders.

Even with the restrictions on provincial regulation, there is still plenty of scope for provincial climate action. This is reflected in the steps already being taken in many provinces. The question is how to bring those efforts together into a coordinated strategy that could form the basis of a national climate change plan.

Canada’s three Territories do not have the same constitutional status as provincial governments, and the territorial governments are created by federal legislation. However, for the purposes of this paper we have assumed that any national strategy is likely to treat the Territories as if they were equivalent to provinces. References to provinces in the other Parts of this report should be read as including territories.

## Existing federal and provincial climate collaboration

It is worth noting that there have been some meetings in recent years between the federal government and the provinces, mostly aimed at information sharing and consultation, rather than developing a collaborative national strategy.

According to the Commissioner on the Environment and Sustainable Development, “separate working-level committees, including industry and relevant provincial representatives,” have been discussing current and planned federal regulations.<sup>10</sup>

However, meetings at a higher, more strategic level have been more limited. A “senior management working group,” aimed at sharing information on regulatory options met, but apparently only once in October 2012.<sup>11</sup> A deputy minister level “federal-provincial-territorial consultative committee,” however, has met twice yearly “mainly to share information.”<sup>12</sup>

<sup>10</sup> Above, note 10, p. 14.

<sup>11</sup> Ibid, p. 14; The Commissioner of the Environment and Sustainable Development Report. Spring 2012 (Ottawa: Office of the Auditor General of Canada, 2012), p. 50.

<sup>12</sup> Ibid., p. 14.

The Canada Health Act ... sets out the federal expectations ... but leaves the development and implementation of the actual programs to the provinces.



The Commissioner's 2014 report emphasized the need for a strong federal role in coordination:

Most of the [provincial] officials we consulted cited the need for improved mechanisms for consultation and cooperation on national emission reduction initiatives.<sup>13</sup>

### Models of federal-provincial coordination

Given the federal government's key role in international pollution, it would make sense for the federal government to enact legislation that directly regulates GHG emissions. However, there are other approaches to legislation which provides federal guidance while leaving the provinces to play a key role.

One such example is the federal coordination brought about by the *Canada Health Act*. The *Canada Health Act* sets out a funding arrangement between the federal government and the provinces. Under the *Canada Health Act* provinces receive federal funding to assist in their health care systems provided that those health care systems abide by the principles set out in the Act.

This is a very different model from most federal legislation. It sets out the federal government expectations for the provinces, provides (financial) support, but leaves the development and implementation of the actual programs to the provinces.

The reason for this different model is in large part because the federal government's constitutional mandate to address health care is less than clear. However, through its spending powers, and the associated ability to define principles that must be adopted in return for receiving funding, it is able to heavily influence, and provide consistency between, provincial government regimes.

But while there is clear federal authority to regulate in respect of climate change, the *Canada Health Act* may nonetheless be an important model for an approach which allows, indeed depends, upon provincial action, while nonetheless ensuring consistency and high standards across provinces.

The *Canada Health Act* approach stands in sharp contrast to, for example, the *Canadian Environmental Protection Act* (CEPA) (which is a prime candidate for the legislation under which federal rules about GHG emissions might be made). Under CEPA the federal government puts in place regulations of toxic substances. Provinces can adopt their own regulations, but the federal rules apply unless a province convinces the federal government that its rules are equivalent to the federal rules. As noted in a recent report of the Commissioner for the Environment and Sustainable Development, the federal government has apparently discussed using "equivalency agreements" under CEPA in relation to the regulation of some sources of greenhouse gas emissions, notably in relation to coal-fired power generation.<sup>14</sup>

Another important example of federal legislation that encourages strong provincial leadership on an environmental issue is the *Species At Risk Act*, which respects provincial authority to act in protecting endangered species, but which gives the

<sup>13</sup> Ibid., p. 16.

<sup>14</sup> Report of the Commissioner for the Environment and Sustainable Development, Fall 2014. (Ottawa: Office of the Auditor General of Canada, 2014), p. 14.

federal government a residual role to step in where “the laws of the province do not effectively protect [a] species or the residences of its individuals.”<sup>15</sup>

Nonetheless, the Canada Health Act is a very cooperative model, and one that must be seriously considered in light of the current government’s promise of a cooperative approach. This is not to say that the *Canada Health Act* approach could be transferred in its entirety to the issue of climate change. In relation to climate change there are many areas in which the federal government has taken a leadership role (national vehicle standards, to name just one example), and many others in which it should. As noted, there are other areas in which only the federal government has constitutional authority to act. Weak federal leadership that offloads responsibility to the provinces, even if framed as collaboration, is not likely to result in a strong national plan. Unlike the *Canada Health Act*, the federal government in a national climate framework needs to **both** engage in strong action in its own right **and** provide incentives and coordination for strong action at the provincial level.

One could envisage federal legislation which ultimately had elements of all of these approaches – establishing standards and principles for provincial action, but also identifying areas where the federal government will take the lead.

### Inter-Provincial coordination

Even though the federal government often plays a key role in coordination between the provinces, provinces can and do coordinate between themselves. Provinces enter into agreements on a wide range of issues. For example, provinces recognize one another’s drivers licences and other qualifications, and provide medicare to their residents when they travel in different provinces.

A number of provinces have negotiated agreements governing inter-provincial trade and investment, developing agreements which regulate how each will treat the other province’s companies. These agreements are extremely complicated, providing for dispute resolution mechanisms and other features which could more easily have been created through federal regulation.

On the environmental front the Canadian Council of Ministers on the Environment (CCME) provides an opportunity for national coordination – between the provinces and the federal government – on a wide range of environmental issues. The CCME has set environmental standards which, while not legally binding, has formed the basis for provincial regulation in many provinces. The CCME includes the federal Minister of the Environment, and could certainly be a forum in which some aspects of a national framework on climate change is developed.

Similarly, provincial coordination is already occurring in relation to climate change. Several provinces have participated in discussions with each other and a number of U.S. States about climate change as part of the Western Climate Initiative (WCI). Quebec is part of an emissions trading system with California that arose out of the WCI, and Ontario seems close to joining. It is hoped by many that the standards developed under the WCI might one day form a basis for GHG regulation at a national level in Canada and/or the U.S.

Weak federal leadership that offloads responsibility to the provinces ... is not likely to result in a strong national plan.



<sup>15</sup> *Species At Risk Act*, S.C. 2002, c. 29, s. 34.



These models of interprovincial cooperation also provide some guidance as to how a national “province-up” approach to greenhouse gas planning and management might work. Both the federal and provincial governments have the potential to play important leadership roles in relation to climate change – both in developing the type of planning framework discussed in this report and through inter-provincial models of cooperation, along with federal-provincial models.

## Part III – Carbon Targets and Carbon Budgets

This Part explores greenhouse gas reduction targets that Canada’s government, and Canada’s provincial governments, have set to help achieve global climate change goals. We note some of the challenges in setting consistent targets and in comparing provincial and national targets.

We then turn to the United Kingdom, which in 2008 adopted a “carbon budgeting” approach to its targets – expressing aggressive short-, mid- and long- term greenhouse gas reduction goals in terms of a budget of greenhouse gases that can be emitted during a set budget period. This approach seems to have assisted the UK in planning, as discussed in Part V, and offers a number of lessons for Canada and its provinces.

### An overview of Canada’s climate change efforts

Canada and other countries committed, in 1992 when they signed the United Nations Framework Convention on Climate Change, to work to “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”<sup>16</sup>

To establish a road map of how to do this, countries turned to scientists. The Intergovernmental Panel on Climate Change (IPCC) is an expert panel with representation from around the world that has the responsibility of advising governments, in an open and transparent way, about the current knowledge about climate change and about what needs to be done globally to avoid dangerous interference with the global atmosphere.

The IPCC’s recommendations on what needs to be done have changed, as the world’s governments have missed early, less difficult, opportunities to avoid dangerous climate change, and as the science has evolved and become more robust. The basic message that we need to dramatically reduce global greenhouse gas emissions has remained constant.

In 1990, in its first assessment report the IPCC described a scenario which would see a global reduction in greenhouse gas emissions of 50% by 2050 (target year) relative to 1985 levels (base year) and suggested this would result in global temperature increases stabilizing at 2 °C.<sup>17</sup>

This form of describing greenhouse gas reductions, i.e. a target relative to a base-year, has remained the standard form at the international, national and provincial levels.

The 2 °C figure used in the first IPCC report remains an important goal, as there is a broad scientific consensus that any further increase creates a serious risk of dangerous climate change. In the 2009 Copenhagen Accord, Canada and other governments recognized “the scientific view that the increase in global temperature should be below 2 degrees Celsius”, and pledged to make “deep cuts in global emissions ... with a view to reduce global emissions so as to hold the increase in global temperature

<sup>16</sup> United Nations Framework Convention on Climate Change, 1992, article 2, available on-line at [http://unfccc.int/files/essential\\_background/background\\_publications\\_htmlpdf/application/pdf/conveng.pdf](http://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf), last accessed 26 October 2015.

<sup>17</sup> AR 1, Summary for Policy Makers, p. xxiii and xxxiv.

below 2 degrees Celsius...”<sup>18</sup> (Many scientists now believe that it is misleading to imply that this 2°C limit is safe, and have suggested that 1.5°C is a more appropriate threshold.)<sup>19</sup>

The most recent report of the IPCC calculates that if global efforts keep greenhouse gases below 450 parts per million in the earth’s atmosphere, the earth is “likely” to “maintain warming below 2°C,” but that these scenarios require “40 to 70% global anthropogenic GHG emissions reductions by 2050 compared to 2010, and emissions levels near zero or below in 2100.”<sup>20</sup> “Likely” refers to a 66% or higher probability.<sup>21</sup>

## Setting Canadian targets

Canadian governments have set national targets as noted below.

Commitment	Reduction (per-cent)	Relative to (base year)	by (target year)
Kyoto commitment (1997)	6 percent reduction	relative to 1990 levels	by 2010
Turning the Corner <sup>1</sup> (2007 Canadian government policy)	20 percent reduction	Relative to 2006 levels	by 2020
Canada’s commitment in the Copenhagen Climate Accord (2009)	17 percent reduction	Relative to 2005 levels	By 2020

Immediately one of the major limitations of expressing targets in terms of reductions from a base-year become clear. In order to find out how much Canada is actually committing to do in each of these scenarios, you need more information – for example, what the emissions levels were in the base-year – and even then some math is required to compare the targets. Our friends at the Pembina Institute have crunched the numbers, and so we know that the Turning the Corner target amounts to a 3 percent reduction below 1990 levels, while the Copenhagen commitment is a 2 percent **increase** relative to 1990 levels.

The situation becomes still more complicated if we consider that the provinces are promising to do to fight climate change.

- Quebec has a target of 20% below 1990 levels by 2020.<sup>22</sup> It has also promised to reduce emissions by 37.5% below 1990 levels by 2030.<sup>23</sup>

<sup>18</sup> Copenhagen Accord, articles 1 and 2, available on-line at <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf>, last accessed 26 October 2015.

<sup>19</sup> Subsidiary Body for Scientific and Technological Advice. Report on the structured expert dialogue on the 2013–2015 review. (UNFCCC, Bonn: 2015), available on-line at <http://unfccc.int/resource/docs/2015/sb/eng/info1.pdf>, last accessed 9 November 2015.

<sup>20</sup> IPCC. Climate Change 2014. Synthesis Report. Summary for Policy Makers, p. 20, available on-line at [https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5\\_SYR\\_FINAL\\_SPM.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf).

<sup>21</sup> IPCC. Guidance note on the treatment of uncertainties., p. 3, available on-line at <https://www.ipcc.ch/pdf/supporting-material/uncertainty-guidance-note.pdf>, last accessed 28 October 2015.

<sup>22</sup> [http://www.mddep.gouv.qc.ca/communiqués\\_en/2009/c20091123-cibleges.htm](http://www.mddep.gouv.qc.ca/communiqués_en/2009/c20091123-cibleges.htm), last accessed 9 November, 2015.

<sup>23</sup> <http://www.cbc.ca/news/canada/montreal/quebec-greenhouse-gas-reduction-1.3231951>, last accessed 29 October 2015.

- British Columbia has legislated targets of 33 percent reductions against 2007 levels by 2020.<sup>24</sup> This amounts to slightly less than a 20 percent reduction against 1990 levels.
- Ontario has promised to reduce emissions by 15 percent against 1990 levels by 2020. Ontario has also promised to reduce its emissions by 37% relative to 1990 levels by 2030.<sup>25</sup>
- Maritime provinces have promised to reduce their greenhouse gas emissions by 10% relative to 1990 levels by 2020.
- Alberta has taken a totally different approach, promising to reduce greenhouse gas emissions by 50 MegaTonnes relative to a base-year of 2020 (ie. the province's estimate of the emissions that would occur in 2020 if no efforts to reduce greenhouse gases occurred). This goal translates into a 58 percent **increase** above 1990 levels in 2020. The new government of Alberta, to its credit, is currently considering new targets.

With targets set years out (2020 is fast approaching now, but less so when federal targets were set in 1997, 2007 and 2009, respectively), targets risks being aspirational, with little short-term direction about what needs to be done.

In addition, unless a government plans to cut greenhouse gas emissions uniformly across the board, a province or nation-wide target says little about which sector or agency should achieve which reductions, and how the broader target will be achieved.

This type of management in finances would never be accepted. Little would be gained by setting a national goal of reducing the collective federal and provincial debt by 2020 by 17% relative to 2005 debt, but with a target for BC of reducing the share that it had in 2007 by 33%. Quite aside from whether those are good enough goals, the approach is confusing, and understanding the relationship between the BC goal and the federal goal requires some serious number crunching.

But it's also worth noting that these targets were, for the most part, set by politicians, rather than by scientists, and it's difficult to understand where these reductions fit in terms of the global targets.

In some cases provincial (and proposed national) targets have been based loosely on past IPCC recommendations. For example, the 4<sup>th</sup> IPCC report reported that scenarios in which the world avoided 2°C increases in temperature involved industrialized countries reducing their emissions by 25- 40% below 1990 levels by 2020, and 80-95% below 1990 levels by 2050. These figures described industrialized countries collectively, rather than an obligation directly transferable to Canada, but have been viewed as providing a guide for Canadian emissions targets. The targets proposed in a private members bill, Bill C-311, which was introduced by the NDP in 2009, but supported by all opposition parties, were based upon the more modest end of this range (25% by 1990 and 80% by 2050).<sup>26</sup> Similarly, several provinces have targets

This type of management in finances would never be accepted.



<sup>24</sup> British Columbia (2008) Climate Action Plan – Phase One at 13. Available at [http://www.livesmartbc.ca/attachments/climateaction\\_plan\\_web.pdf](http://www.livesmartbc.ca/attachments/climateaction_plan_web.pdf)

<sup>25</sup> <https://news.ontario.ca/ene/en/2015/05/ontario-first-province-in-canada-to-set-2030-greenhouse-gas-pollution-reduction-target.html>, last accessed 29 October 2015.

<sup>26</sup> Bill C-311, s. 5.

that approach (but do not meet) the reductions suggested by these IPCC scenarios recommended targets.

Others, however, lack any apparent scientific grounding, and fall well short of what Canada needs to do to “play its part” in stabilizing the global atmosphere and avoid a 2°C rise in global temperatures.

It is crucial to recognize that, in addition to a target, governments need to have a clear and realistic plan of how to achieve those targets, and need to implement that plan. If concrete steps are not taken to achieve these goals, then they are nothing more than greenwashing. Planning is discussed further in Part V.

## Lessons from the United Kingdom

In 2008, the United Kingdom became the first country in the world to require mandatory economy-wide carbon budgets. The carbon budget process was created by a Labour government, but was broadly supported by all political parties, and has primarily been administered by Conservative governments, during which time the UK achieved the target of its first “carbon budget” – which amounted to a 23% reduction in GHG emissions in 2012 relative to 1990 levels, and is considered to be on track to achieving a 35% reduction in emissions relative to 1990 levels by 2020, although further work will be required if the country is to achieve its goal of 50% by 2025.<sup>27</sup>

The UK’s targets are much more ambitious than anything we’ve seen as yet in Canada, and they have had more success in meeting their targets. This is partly because the UK’s emissions peaked earlier (due to earlier mitigation efforts). But it seems to be, at least in part, due to the carbon budget structure and the institutions that support it.

### So what is a carbon budget?

A financial budget sets out how much money a government, corporation or individual expects to earn and spend over a period of time. Knowing its sources of revenues and expenses, a responsible financial planner can then plan, to ensure that the revenues are met and the expenses do not exceed those revenues.

A carbon budget represents a set amount of carbon that can be emitted during a given time globally, by a nation (Canada or the UK), a region within a country (a province or Scotland), or by some other sub population or type of activity.<sup>28</sup> It places a cap on emissions which can then be broken down and allocated to particular time periods, ministries, regions or industries.

When the UK began using carbon budgets in 2008, the concept of a country-wide was little known globally. But since then there’s been a lot of discussion about a

<sup>27</sup> Committee on Climate Change website, Carbon Budgets and Targets page, available at <https://www.theccc.org.uk/tackling-climate-change/reducing-carbon-emissions/carbon-budgets-and-targets/>, last accessed 30 October 2015.

<sup>28</sup> Gilbert, A and Reece, G (2006) *Developing a Carbon Budget for the UK: With opportunities for EU Action*. Ecofys, London United Kingdom at 2, , available at [http://www.foe.co.uk/resource/reports/carbon\\_budgetting.pdf](http://www.foe.co.uk/resource/reports/carbon_budgetting.pdf), last accessed 9 November 2015.

global carbon budget – the idea that there is only so much GHG that can be emitted between now and 2050 if we are to avoid a 2°C rise in global temperatures (and dangerous climate change).

And in 2014 the most recent IPCC report for the first time expressed global targets in terms of how much can be emitted, suggesting that if we want a 66% chance of limiting global temperature rises to less than 2°C, then the world has a total carbon budget of 1000 GigaTonnes of Carbon; the IPCC observed that the world has spent 515 GtC of that budget (as of 2011).

So now there's some awareness of the use of the term carbon budget at the global level, but it still make be new to suggest that carbon budgets should be used in a national and provincial targets to help inform climate change planning. And, in particular, the practice in the UK of setting short-term carbon budgets to aid in planning (for 5 year periods in the UK, and an annual budget in Scotland).

To a certain extent, a measured reduction (expressed not as a percentage but as an amount of emissions) and a measured budget (expressed as allowed emissions in a given year or years) are flip sides of the same approach. One focuses on how many GHGs can be emitted in a given period, while the other focuses on how much emissions should be reduced in a given period. Figure 1 shows the U.K.'s targets for 2020, 2025 and 2050, together with the first 4 carbon budgets. A carbon budgeting approach focuses on the amount which can be emitted, while the targets approach focuses on a reduction from a base year (1990 in the case of the U.K.)

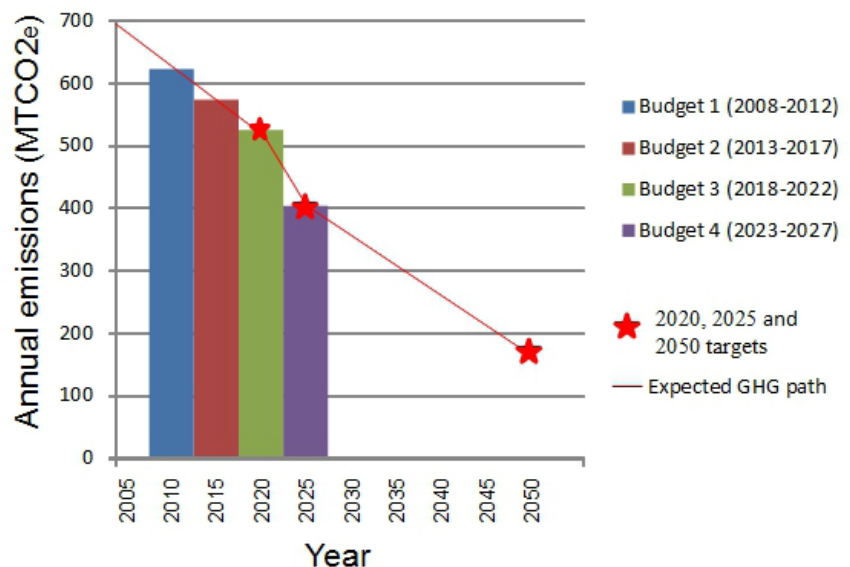
However, although to some degree a question of nuance, there are real benefits to a carbon budgeting approach. Many of these were described in a 2006 paper commissioned by Friends of the Earth UK which in many ways led to the UK adopting the Carbon budgeting approach:

In some ways a carbon budget is not extremely different from the existing system of setting and monitoring interim targets, however there are some advantages.

A carbon budget differs in language, and makes it clearer that national emissions of greenhouse gases are strictly limited, and cannot be overshot. The terminology is stronger than that of targets, which can be more acceptably missed.

Secondly, the use of a long-term budget will help to ensure ... that it is the total emissions profile that will be monitored over time, rather than snapshots of emissions reductions at wide intervals.

Fig. 1 - U.K. Carbon Budget v. Targets





A corollary of this second point is that the budgeting system will aid policy-makers, rather than put them under pressure. A more regular monitoring and review system will help policy-makers better understand the way in which the UK's emissions profile is changing, and thus amend policies in response.

A long-term carbon budget would also provide direction and certainty for businesses and investors in emissions reduction technologies. A recent survey of FTSE 100 companies quoted in the Financial Times (31/07/06) found that “businesses are confused by the government’s policies on climate change and the lack of clarity is hampering investment decisions.” The Confederation of British Industry (CBI) have also made official statements stressing “the need for intermediate targets and milestones that take better account of business investment cycles, and for a streamlined policy framework which promotes technology development as well as action by all sectors of the economy.” This need to provide certainty and targets for business has been recognised by UK Government.<sup>29</sup>

We are not suggesting that Carbon budgets somehow replace discussion about emissions reductions targets – rather a science-based emissions reduction target may be an important factor in setting a carbon budget. The budget may assist in conceptualizing and realising the required emissions reductions.

The UK's Carbon Budget approach has also shown itself to be flexible in allowing comparisons between budgets within the UK – notably allowing the carbon budgets for “devolved governments” – Scotland, Northern Ireland and the UK – to be easily compared and integrated with the UK's national carbon budget. This is clearly an additional benefit in Canada, particularly if the federal government intends to build a provincial government-up approach. Such an approach has the potential to provide clarity over respective emissions levels in each province and their relationship to a national emissions level. Moreover, it sets the stage for the difficult discussion about how budgets should be set for each province.

### **A brief overview of the UK Approach**

The *Climate Change Act 2008* (“CCA”) set an emissions reduction target of at least 80 percent lower than 1990 levels by 2050<sup>30</sup> and created national carbon budgets achieve this. Carbon budgets break down that long-term target into short-term periods, each with their own target. This provides a clear long term framework for mitigation planning giving businesses and individuals direction and certainty in the switch to a low carbon economy.

<sup>29</sup> Above, note 23 at pp. 13-14.

<sup>30</sup> Climate Change Act 2008 c. 27 s1.

### **An example of a carbon budget**

The carbon budget is quite literally a statement of the target for the budget period, expressed in terms of emissions that may occur during the budget period. Thus, the operative section of the 4<sup>th</sup> Carbon Budget Order states simply:

The carbon budget for the 2023–2027 budgetary period is 1,950,000,000 tonnes of carbon dioxide equivalent.

### ***The budget basics...***

Carbon budgets are set for 5-year periods with three budgets set at a time.<sup>31</sup> They apply to six listed GHGs<sup>32</sup> although the Secretary of State has the discretion to exclude GHGs other than CO<sub>2</sub> from any budgetary period.<sup>33</sup> In each case, the budget expresses the targets in terms of the quantity of the gas that can be emitted during the budget period.

Interesting, the Parliament of Scotland, in its *2009 Climate Change Act*, elected to set annual emissions targets (budgets), rather than follow the U.K.'s 5-year budget approach.<sup>34</sup> There are pros and cons to each approach. A 5-year budget gives flexibility and recognizes that there will be unavoidable year fluctuations in greenhouse gas emissions, while an annual budget provides for greater accountability – particularly for governments that are typically elected for 4 year terms.<sup>35</sup>

A number of matters must be taken into account when the budgets are set including scientific knowledge about climate change, economic and social circumstances, and circumstances at European and international levels.<sup>36</sup>

### **Scientific advice**

The CCA creates an independent Committee on Climate Change (“the Committee”) which the Government is required to consult when setting the budgets.<sup>37</sup> The Committee is discussed in more detail in Part IV, below. The Secretary of State reserves the power to alter a set budget if there are significant developments in scientific knowledge or international law or policy.<sup>38</sup>

### ***Reporting and monitoring...***

The Secretary of State has considerable reporting obligations including reports on: proposals and policies to meet carbon budgets,<sup>39</sup> and annual statements of UK emis-

<sup>31</sup> Climate Change Act 2008 c.27 s4.

<sup>32</sup> Climate Change Act 2008 c.27 s92.

<sup>33</sup> Climate Change Act 2008 c.27 s5(4).

<sup>34</sup> Climate Change (Scotland) Act 2009; See also Annex B in Government of Scotland. *Low Carbon Scotland* (Glasgow, 2013), available on-line at <http://www.gov.scot/Publications/2013/06/6387/14>, last accessed 3 November 2015.

<sup>35</sup> We did consider the possibility of recommending a 4 year carbon budget period to reflect this, but given that a national framework will involve budgets from each province and the federal government, each of which will have its own electoral cycle, which in many cases is not fixed, there do not seem to be particular benefits to a 4 year cycle over a 5 year one.

<sup>36</sup> Climate Change Act 2008 c.27 s10.

<sup>37</sup> Climate Change Act 2008 c.27 s32.

<sup>38</sup> Climate Change Act 2008 c.27 ss6, 21.

<sup>39</sup> Climate Change Act 2008 c.27 s13.

sions.<sup>40</sup> The Committee must also provide progress reports.<sup>41</sup> In the annual statement of emissions the Secretary of State must identify the methods used to measure or calculate the net amount of emissions.<sup>42</sup> Carbon accounting is to otherwise keep track of carbon units (units issued under international schemes) that are credited to the UK account.<sup>43</sup>

### ***Meeting the budgets...***

Where it seems that the budget is going to be missed by a small amount the government is able to borrow one percent from the next budgetary period.<sup>44</sup> Conversely, where net emissions are below the budget allowance they can be carried forward into the next budgetary period.<sup>45</sup> International carbon units may also be credited to or debited from the UK carbon account, although use of such units may be limited by the Secretary of State.<sup>46</sup>

With this legal framework the UK is well placed to plan for mitigation. The carbon budgets set clear caps on emissions and create a structure within which mitigation plans can be created. The framework provides guidance and certainty to businesses and industry and is also flexible enough to work with international or regional agreements.

### **Features of a made in Canada carbon-budget**

The UK model clearly has a lot of lessons to offer Canada. However, there are differences between the two countries which need to be recognized and addressed in a budgeting framework.

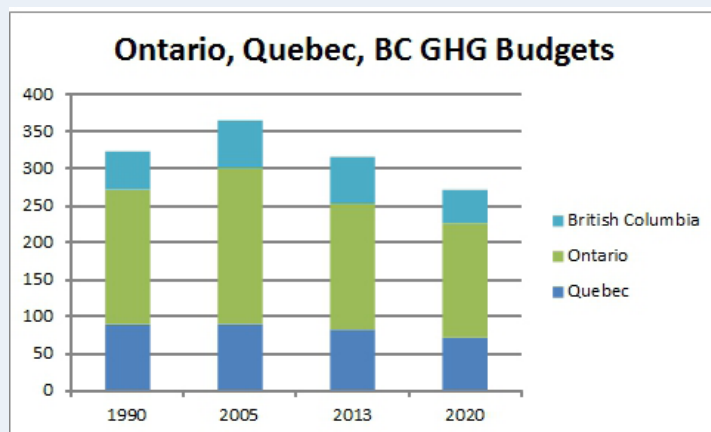
The most notable is that in Canada, government powers and responsibilities are divided between the Canadian government and the provinces. While Scotland, Wales and Northern Ireland have developed and administered their own policies to reduce greenhouse gases, these occur in some parts of the country only, and within a national carbon budget that applies to and guides the entire

### **Comparing provincial carbon budgets**

As shown above, it can be difficult to compare greenhouse gas reduction targets between provinces, or between the province and the federal government, when those targets are expressed only in terms of percent reductions from a base-year by a target year.

But comparing, and combining, carbon budgets, and comparing them with actual emissions, is as easy as basic addition. In the figure below, for example, the actual emis-

sions for BC, Ontario, and Quebec for 1990, 2005 and 2013 are contrasted with a “carbon budget” for 2020 (made up of the three provinces promised targets). Because the 2020 target is expressed in terms of actual emissions allowed, the total “carbon budget” for the 3 provinces can easily be calculated by simply adding the 3 targets together (just as the total actual emissions are calculated by adding the actual emissions of each province for each year.)



40 Climate Change Act 2008 c.27 s16.

41 Climate Change Act 2008 c.27 s36.

42 Climate Change Act 2008 c.27 s16(1) CCA.

43 Climate Change Act 2008 c.27 s26. See also the Carbon Accounting Regulations 2009 No.1257.

44 Climate Change Act 2008 c.27 ss17(1), 17(2).

45 Climate Change Act 2008 c.27 s17(3).

46 As was the case under the Climate Change Act 2008 (2020 Target, Credit Limit and Definitions) Order 2009 which prohibited the use of international credits for the first budgetary period.

country. In Canada, provincial budgets will play a major role throughout the country, and must integrate with a federal budget, and a combined national budget (see Part III).

Indeed, given the fact that several of the provinces have been playing a leadership role, provincial targets may play a major role developing a national budget.

To set a carbon budget for the federal government, it will be essential for the federal government (in consultation with the provinces) to identify the leadership areas on which it will take action. While there are some areas (aviation, marine navigation, etc.) that will require federal government involvement, there are many other sectors in which the federal government could agree to take a leadership role. Whether the federal government undertakes such roles exclusively, or shared with some or all of the provinces, will need to be negotiated. The budget for each level of government should reflect the emissions sources for which that government is responsible.

Ideally Canada's carbon budget framework should:

- **Set national and provincial budgets** based upon the budget/targets adopted by each province and the advice of the Scientific Committee discussed in Part IV. The national budget should meet or exceed Canada's fair share in a global emissions budget is sufficient to prevent dangerous climate change, and the provincial budgets should represent a fair contribution to that national budget. The national budget must also include a federal budget that reflects the actions of the federal government and emissions from federally-regulated sources of emissions.
- **Set regular and nationally agreed upon budgetary periods.** There are pros and cons to 1 year budgets (which provide for accountability), and five year periods (which account for annual variations). In our view, the best of both worlds can be achieved by specifying annual budgets, but totalled into a five year budget, which will form the basis for planning, implementation and accountability. As in the UK and Scotland, multiple budgets – covering at least 15 years out, with new budgets adopted as needed to keep that 15 year planning window – should be set at the same time to allow for long term planning.

### Carbon Budgeting in Canada

Carbon budgeting is not a new concept in Canada.

Cap and trade systems of regulating greenhouse gas emissions can be viewed as setting a budget for the industrial sectors covered by the regulation, and are in place in Quebec and soon will be in Ontario. These industry-focused carbon "caps" are different from economy-wide budgets that can be used to facilitate greenhouse gas reduction planning.

Bill C-30, the *Clean Air and Climate Change Act* introduced in 2006 was amended by the opposition dominated legislative committee to include a carbon budgeting and climate change planning regime based on annual budgets.<sup>1</sup> The Bill did not get beyond the committee stage. Despite that failure, the past attempt indicates some political interest in the approach.

In addition, Bill C-619, the

*Climate Change Accountability Act*, a private members bill introduced by the NDP in 2015, and supported by the other opposition parties, required the setting of regular interim greenhouse gas reduction targets, and development of plans to achieve those targets, covering 5-year periods – features which are in many ways consistent with features of a carbon budget system.

In addition, Bill 619 anticipated that a global agreement might set a carbon budget for Canada. The bill would have then required the Minister to take steps to ensure that plans under the Act would achieve the carbon budget.<sup>2</sup>

However, these legislative proposals did not provide much detail about how budgets would work, and it does not appear that the concept of economy-wide carbon budgeting has received a lot of attention in Canada.

<sup>1</sup> Beauregard-Tellier, F., Banks, S.N.K., Myers, L. C (2007) Bill C-30: Canada's Clean Air and Climate Change Act.

<sup>2</sup> *Climate Change Accountability Act*, Bill C-619, 41<sup>st</sup> Parliament, 2<sup>nd</sup> Session, s. 6.

Budgets ... should be based on a transparent application of the best available science on what is required to fight climate change.



- **Cover a range of greenhouse gases.** Although CO<sub>2</sub> contributes to the bulk of GHG emissions, the fact that other GHGs are more destructive in the short term should not be ignored. Canada's carbon budgets should apply at least to the seven GHG's currently reported under the United Nations Framework Convention on Climate Change: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>).<sup>47</sup>
- **Budgets should be based on science.** The federal and provincial budgets should be based upon a transparent application of the best available science on what is required to fight climate change. As discussed below, the Scientific Committee described in Part IV should play a key role in establishing the budgets – recommending budgets for each level of government and an overall national budget – with the federal and provincial governments required to explain departures from the recommendations.
- **Agreed upon principles to budgeting.** The participating provincial governments, with advice from the Scientific Committee, develop a common set of principles outlining how national, federal and provincial budgets should be set. See the box on page 20 - Principles for carbon budgeting.
- **Require federal and provincial planning for, and monitoring and annual reporting of, progress towards achieving the budget.** As described in Parts V and VI, carbon budgeting facilitates transparent planning and monitoring of progress towards achieving goals. The Scientific Committee described in Part IV should play a key role at each of these stages.

**RECOMMENDATION: Set annual national and provincial budgets for a rolling 15 year period based on Canada's long-term goals, the advice of the Scientific Committee and on the goal of meeting or exceed Canada's fair share in a global emissions budget is sufficient to prevent dangerous climate change.**

<sup>47</sup> UNFCCC reporting guidelines on annual inventories for Parties included in Annex I to the Convention, article 28, adopted at COP19 in 2013, available on-line at <http://unfccc.int/resource/docs/2013/cop19/eng/10a03.pdf>, last accessed 8 November 2015.



## Principles for carbon budgeting

Setting a global emissions target does not determine what Canada's share should be, since Canada may choose to be a climate leader, or a laggard, in terms of its own contribution, and because its circumstances (economically advantaged, large per-capita emitter vs. large geographic area, cold climate) may favour a greater or lesser target (depending upon your perspective).

The task of setting a national greenhouse gas target, and apportioning responsibility for that target between the provinces, will be crucial, and the Liberal Party Platform promised that:

Central to [taking action on climate change] will be the creation of national emissions-reduction targets, informed by the best economic and scientific analysis. These targets must recognise the economic cost and catastrophic impact that a greater-than-two-degree increase in average global temperatures would represent, as well as the need for Canada to do its part to prevent that from happening.<sup>1</sup>

The Liberal Party Platform's promise that targets will be "informed by the best economic and scientific analysis" supports the creation of an expert body, perhaps along the lines contemplated in the report, but even if the provincial and federal governments rely upon the advice of such a body, the principles that the scientific body should consider in recommending national and provincial budgets and targets should be clearly spelled out. These will need to be determined by the federal government and/or the provinces as part of the framework, but issues to consider include:

**Level of ambition** – Does Canada wish to base its targets on the idea that the world's countries should be aiming to keep global temperature increases below 2°C, or (as scientists are increasingly recommending) 1.5°C? The Liberal platform suggests that 2°C should be the limit, but a growing number of scientists favour the more cautious 1.5°C limit.

**Equity between countries** – The platform promises that Canada will "do its part" in preventing climate change, but does that mean that Canada will work towards a glob-

ally fair per capita level of greenhouse gas emissions?<sup>2</sup> What role does our historic contribution to climate change play? Doing our part towards a fair outcome requires more aggressive cuts in Canada than would be the case in some developing countries, particularly in the short term – a concept known internationally as "contraction and convergence."

**Equity between provinces** – As a federation, it does not make sense that one or two provinces can avoid taking action on climate change, while others work hard to achieve a na-

tional target. All provinces need to take aggressive action, and in the long-term the carbon budgets should converge.

**Allowances for regional variation in the short term** – Allocating responsibility between provinces, industries and individuals within Canada will require overcoming many of the same difficulties observed at the global level. Climate variability, the availability of renewable energy sources, transport, rates of economic and population growth and patterns of economic structure all account for provincial differences in

GHG emissions. Variable provincial targets therefore make sense, at least in the short-term.

These and similar principles should be adopted to provide guidance to the Scientific Committee to propose targets that are fair, equitable and consistent, both globally and as between provinces.

<sup>1</sup> Liberal Party of Canada. A New Plan for Canada's Environment and Economy. (Liberal Party of Canada, Ottawa: 2015), p. 4.

<sup>2</sup> See <https://www.theccc.org.uk/tackling-climate-change/the-science-of-climate-change/setting-a-target-for-emission-reduction/> on the UK Climate Committee's approach to setting targets, last accessed 20 Nov. 2015.



[Climate change] cries out ... for an independent body of scientists capable both of providing expertise to governments ... and criticizing those governments when they fail...



## Part IV – A national scientific body

In order to ensure that a planning framework adequately and effectively addresses climate change, the resulting plans must be based upon the best available science, and not be subject to political interference. The political challenges posed by climate change are huge, and both the public and politicians need to have access to the best available scientific information – free from political spin.

It is particularly important if the Canadian provinces are to collaborate with the federal government in the development of a national plan that they have access to the same information, from a source that they are all able to trust.

The issue cries out, more than just about any other, for an independent body of scientists capable both of providing expertise to governments in developing and implementing carbon budgets and implementation plans, and criticizing those governments when they fail to meet the carbon budgets. And, indeed, past federal climate change legislation has included a role for independent scientific bodies, as does many other environmental statutes.

Just as the governments of the world created an Intergovernmental Panel on Climate Change (IPCC) to advise it on climate change, the governments of Canada can and should develop a joint scientific body to assist it in developing consistent climate change planning.

### Examples of science-based bodies

In addition to the global IPCC, there are many examples of independent scientific bodies developed as part of carbon budgeting/mitigation planning frameworks.

In the United Kingdom, the Climate Change Committee (CCC) is a key feature of its *Climate Change Act 2008*, which creates that country's climate change planning framework.

In Canada, there are several national examples of government-created independent scientific committees; notably, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) was created jointly by the federal government and the provinces, and may provide a useful model for a Canadian scientific body in a climate change framework.

Provincially several of the provinces have made some use of independent expert bodies in certain aspects of their climate change mitigation planning.

Each of these examples will be reviewed.

### The Committee on Climate Change (UK)

Created under UK's *Climate Change Act 2008*, the Climate Change Committee (CCC) must have between five and eight members appointed by national authorities.<sup>48</sup> When appointing members, national authorities have to ensure the CCC as a

<sup>48</sup> Sch 1(1) Climate Change Act 2008 (UK) ch.27. Note: National authorities are defined as the Secretary of State, Scottish Ministers, Welsh Ministers and relevant Northern Ireland department (s95).

whole has sufficient experience in relevant areas including climate science and business competitiveness.

The CCC regulates its own procedures but national authorities determine how much members are to be paid. Research and support is provided by a 25 member secretariat. The CCC describes itself as follows on its website.

The Committee on Climate Change (CCC) is an independent body established under the Climate Change Act to advise the Government on emissions targets, and to report to Parliament on progress made in reducing greenhouse gas emissions.

#### The CCC's Priorities

- Provide independent advice to Government on setting and meeting carbon budgets and targets.
- Monitor progress in reducing emissions and achieving carbon budgets [greenhouse gas reduction targets].
- Conduct independent research and analysis into climate change.
- Engage with representatives interested in climate change from across the UK in order to share research and information on climate change and gain input into our analysis.<sup>49</sup>

To date the CC has:

- Advised the UK Government on the budgets to be set under the CCC; the government accepted the Committee's recommendations;
- Reviewed government plans on how to achieve climate change targets, confirming some plans, but recommending more detailed action for achieving longer-term targets;
- Prepared an annual evaluation of the UK's progress towards achieving its targets/budgets; and
- Produced an impressive series of reports and reviews on how the UK may best respond to climate change.

The UK CCC, in addition to advising the UK government, also provides direct advice to the country's devolved administrations: the governments of Scotland and Wales. In addition, the CCC has said in the past that it "[e]ngag[e] relevant parties with an interest in climate change to share evidence and analysis,"<sup>50</sup> suggesting that it could work with local governments and other authorities as required.

49 <http://www.theccc.org.uk/about-the-ccc>, last accessed October 23, 2015.

50 Climate Change Committee Corporate Plan 2009-2012.

## Canadian models for climate change committees

There are several Canadian examples of independent expert bodies intended to advise on environmental issues at the national level. We will focus our examination on three that seem particularly relevant:

- The National Round Table on the Environment and Economy;
- The Committee on the Status of Endangered Species in Canada; and
- The CEPA National Advisory Committee.

### National Round Table on the Environment and Economy (NRTEE)

The National Round Table on the Environment and Economy (NRTEE) was created in 1988, in response to the 1987 report of the United Nation's World Commission on Environment and Development (the Brundtland Report).<sup>51</sup> The Roundtable was formalized in a statute in 1993,<sup>52</sup> and continued to operate until 2013, when it was disbanded by the government, in part, it appears, due to federal government discomfort with its recommendations on climate-related issues.<sup>53</sup>

While it existed, the NRTEE was an obvious body to advise the federal government (acting by itself) on climate change. Members were appointed by the federal government, but with regard to the importance of regional representation.

The *Kyoto Protocol Implementation Act* (KPIA), until its repeal, charged NRTEE with providing the federal government with expert advice on government efforts to achieve the targets contained in the Kyoto Protocol. The KPIA required the federal government to prepare regular plans outlining how it would achieve the Kyoto GHG reduction targets (6% below 1990 levels by 2012). Under section 10 of the KPIA, the NRTEE was to review these plans and advise the Minister on, amongst other things, the likelihood that the plan would achieve the Kyoto targets. The planning requirements of the KPIA are discussed further in Part V.

Bill C-311, the *Climate Change Accountability Act*, a private member's bill passed in 2010 by the House of Commons with the support of all opposition parties, but defeated later that year in the Senate, would also have given NRTEE a similar, but expanded, role in advising the federal government on meeting climate targets.

The Kyoto Protocol Implementation Act required the federal government to prepare regular plans on how it would achieve ... GHG reduction targets...



<sup>51</sup> <http://collectionscanada.gc.ca/webarchives2/20130322142705/http://nrtee-trnee.ca/history>, last accessed 9 November 2015.

<sup>52</sup> *National Roundtable on the Environment and Economy Act*, S.C. 1993, c. 31.

<sup>53</sup> J. Visser. "John Baird happily admits Tories didn't like axed environmental watchdog's advice." National Post, May 14, 2012, available on-line at <http://news.nationalpost.com/news/canada/john-baird-happily-admits-tories-didnt-like-axed-environment-watchdogs-advice>, last accessed 23 October 2015.

That being said, the NRTEE, as it was structured, could probably not have played the same role under a climate change mitigation framework that emphasizes provincial government action. NRTEE, under its Statute, did not provide advice directly to the provinces. Moreover, even if it could, the provinces might not be willing to receive it, since the NRTEE did not have any representatives selected by the provinces (the federal government was required to consider regional representation in appointing members, but it, and not the provinces, selected the members).

### Committee on the Status of Endangered Wildlife in Canada (COSEWIC)

There are many similarities between climate change and the protection of species at risk. Like species protection, addressing climate change can demand that politicians make hard, contentious decisions that they might prefer to duck. Both involve complicated scientific issues that, if not addressed, will lead to irreversible consequences. And both require action at both the federal and provincial levels.

COSEWIC, unlike NRTEE, was the result of federal-provincial cooperation, created in 1976 by the Conference of Federal-Provincial-Territorial Wildlife Directors. The Conference identified the need for a single, official, scientifically sound national classification system for species at risk, creating COSEWIC with a membership that includes federal and provincial government scientists, and non-governmental experts. COSEWIC was charged with determining, on the basis of the best scientific evidence, the risks that a species may be driven out of a portion of its natural habitat (extirpated) or driven to extinction altogether, and with advising governments on how to avoid extirpation or extinction of at risk species.

However, when Canada's *Species At Risk Act* (SARA) was being developed (ultimately being enacted in 2002), there was a recognition that the task of determining how to avoid extinction of a species was a scientific, and not political, question. There was considerable concern that decisions under SARA be made on the basis of that science, rather than political considerations.

As a result, SARA gave COSEWIC a prominent role in making recommendations for the protection of species at risk, as well as formalizing the composition of the Committee. Under SARA, the members of COSEWIC:

- must be experts in biological sciences, or community/aboriginal areas, related to the conservation of wildlife.<sup>54</sup>
- are appointed by the federal Minister of the Environment in consultation with the Canadian Endangered Species Conservation Council (which includes the Environment Ministers of the provinces and territories), the Royal Society of Canada and other expert bodies;<sup>55</sup>
- now includes representatives of the 13 provincial and territorial government's wildlife agencies, federal agencies, non-government science members, and co-chairs from specialist and aboriginal sub committees. (31 members in all);

<sup>54</sup> S16(2) Species at Risk Act 2002 c.29

<sup>55</sup> ss16(1) and 16(5) Species at Risk Act 2002 c.29.

- In making its assessments of the threats to species COSEWIC is required to use the best available scientific, aboriginal, and community knowledge and these assessments must be taken into account by the Minister when recommending that a species be listed as at risk.<sup>56</sup>

In addition to its high level of expertise, and (in practice) regional representation, what makes COSEWIC unique in Canadian law is its central role in decisions made under the *Species At Risk Act*. These features include:

- Requiring COSEWIC to conduct regular reviews of the status of species that are or may be at risk, and to make determinations on the level of risk faced by those species;
- Requiring the federal Ministers responsible for the Act to respond to and explain departures from the COSEWIC recommendations within clear timeframes;
- Allowing members of the public to apply to COSEWIC for investigations based on new information; and
- Requiring COSEWIC's advice to the government, and the government's responses, to be posted on a public registry.

The legislation is structured on the assumption that COSEWIC's recommendations will generally be followed, and that a politician must be clear and transparent regarding any political decision to depart from the expert recommendations of COSEWIC. For this reason SARA, while also suffering from a lack of proper implementation by the federal government, has proved to be a good deal more enforceable than the *Kyoto Protocol Implementation Act*.

### **National Advisory Committee (CEPA)**

Another expert body at the federal level is the National Advisory Committee (NAC) under the *Canadian Environmental Protection Act*. Under that statute, the Advisory Committee is to advise the federal Minister of the Environment on several matters under the statute, as well as generally on environmental matters of interest to the government. Its composition includes one representative appointed each by the federal government and each of the provinces, and up to six representatives appointed by aboriginal governments.

Despite the joint federal-provincial membership, the NAC's role is limited to advising the federal Minister of Environment on proposed regulations. It does not have as broad a mandate as either NRTEE or COSEWIC.

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<sup>56</sup> S27(2) Species at Risk Act 2002 c.29.

## Provincial Expert Climate Change Bodies

Each of the provinces has examples of expert bodies charged with providing government officials with advice on various subjects.

In the context of recent climate change efforts, Ontario, Quebec and BC have all created expert panels to advise the government on how to achieve climate change targets, although these panels were not exclusively comprised of scientific experts, but rather included leading climate change thinkers from a variety of different fields or sectors:

- **British Columbia** – The BC government created an expert Climate Action Team (CAT) which was asked to develop a number of recommendations related to BC’s climate action plan. The CAT had 22 members, drawn from a variety of sectors (not all of them scientific), and one special adviser. The CAT was tasked with recommending short-term interim targets (long-term targets had been set through legislation), identifying short and medium term actions to reduce emissions and providing advice on the BC government’s commitment to become carbon neutral. However, after the CAT’s initial report, the team was disbanded. Just recently, in 2015, the BC government convened a new Climate Leadership Team, also with multi-stakeholder expert representation, to advise on developing an updated Climate Leadership Plan.<sup>57</sup>
- **Ontario** – In 2008, the Premier of Ontario had a Climate Change Advisory Panel, which until 2012 gave the Premier: “... advice on climate change strategies and policies, as well as scientific and economic research.”<sup>58</sup> However, the Panel was disbanded in 2012, and in 2015 a new Special Advisor and Climate Action Group was established to: “advise the minister on effective climate change actions that will help Ontario meet its greenhouse gas reduction goals and transition to a prosperous, low-carbon economy.”<sup>59</sup>
- However, in addition to these two expert committees, the Ontario Environment Commissioner has reported annually on the province’s progress towards achieving its greenhouse gas reduction targets, serving the role of an independent expert watchdog.
- **Quebec** – Despite long-standing leadership on climate change, the Province of Quebec seems to have first established its Climate Change Advisory Committee in 2014. The purpose of the Committee is to “counsel the Minister on Québec action in the areas of GHG remission reduction and adaptation to the impact of climate change, as well as on the directions and actions with the greatest potential in this respect.”<sup>60</sup> In addition, and

<sup>57</sup> <http://www2.gov.bc.ca/gov/content/environment/climate-change/policy-legislation-programs/climate-leadership-team>, last accessed 23 October 2015.

<sup>58</sup> Premier of Ontario’s News Release: Expert Panel helps fight climate change. October 14, 2008, available at: <http://news.ontario.ca/opo/en/2008/10/expert-panel-helps-fight-climate-change.html>, last accessed October 23, 2015.

<sup>59</sup> <http://news.ontario.ca/ene/en/2015/03/ontario-appoints-special-advisor-for-climate-change-creates-climate-action-group.html>, last accessed 23 October 2015.

<sup>60</sup> <http://www.mddelcc.gouv.qc.ca/changementsclimatiques/comite-en.htm>, last accessed 23 October 2015.



The Committee on the Status of Endangered Species in Canada ... creates both political and legal consequences when politicians seek to avoid ... acting to protect endangered species.



uniquely among the provincial bodies, the Committee will also have a role in “monitoring the 2013-2020 Climate Change Action Plan” and in determining long-term emissions targets.<sup>61</sup>

- **Alberta** – Alberta’s recently elected NDP government has appointed a Climate Change Advisory Panel to assist in the development of its Climate Leadership Plan, and to: “review [Alberta’s] current suite of policies, engag[e] with Albertans and provid[e] government with advice on a comprehensive set of measures to reduce greenhouse gas emissions.”<sup>62</sup>
- **Atlantic Canada** – Atlantic provinces have collaborated to obtain scientific and other information on matters related to climate *adaptation* (preparing for climate change, rather than reducing emissions). The Atlantic Climate Adaptation Solutions Association,<sup>63</sup> which is a joint-project of the governments of the four Atlantic provinces, has established a nine-member “Expert Panel on Climate Change Adaptation,” which will, among other things: “provide guidance to provincial and local governments in regards to adaptation strategies to address the impacts of climate change in communities and ecosystems.”<sup>64</sup> It does not appear that the Atlantic provinces have an independent advisory body already advising on reducing GHG emissions.

These examples confirm the value of advisory bodies at the provincial level. That being said, in each of these cases, the advisory bodies are not primarily scientific body, but rather include representation of a range of interests and types of knowledge. In most cases, their mandate has been narrower than is often the case for independent advisory bodies, and it is clear that several of the provinces have not maintained permanent advisory bodies. While useful, then, the provincial advisory bodies have not lived up to the potential that a permanent, scientific independent advisory body might offer.

### Need for a scientific body

Federally the interplay between the Committee on the Status of Endangered Species in Canada (COSEWIC) and the *Species At Risk Act* has demonstrated the potential for effectively combining the work of scientific advisory body with strong environmental laws. COSEWIC’s scientific advice gives a credibility to action taken under the *Species At Risk Act*, and creates both political and legal consequences when politicians seek to avoid acting to protect endangered species.

Similarly, the UK’s Climate Change Committee is providing credibility to that country’s action on climate change, as well as a political cost when the government ignores its recommendations.

<sup>61</sup> Ibid.

<sup>62</sup> Shannon Phillips, Minister of Environment, in her letter at p. 1 of Alberta. Climate Leadership Discussion Document. August 2015.

<sup>63</sup> <http://atlanticadaptation.ca/>, last accessed 23 October 2015.

<sup>64</sup> <http://www.upei.ca/communications/news/2013/12/new-expert-panel-advise-governments-at-lantic-canada-climate-change-adaptation>, last accessed 23 October 2015.

By contrast, Canadian climate change law has proved less effective. Federally this is because of the limited role given to the NRTEE under the *Kyoto Protocol Implementation Act*, and hostility from a federal government that ultimately disbanded the agency (and repealed the Act).

At the provincial level, expert panels have not been permanent, have often had a more limited role, which has often not included monitoring progress towards achieving targets, but, as noted above, the Ontario Environmental Commissioner has played a role in monitoring Ontario's progress towards its targets.

Based upon the model of COSEWIC and the experience of the CCC in the UK, we would recommend that a national climate change planning framework give a prominent role to a scientific Committee (the "Scientific Committee"). This Committee should:

- include representation from provincial and/or federal governments that are participating in the framework, as well as from the non-governmental scientific community and aboriginal communities;
- be made up of experts on climate change and its effects;
- be charged with providing scientific advice to the those federal, provincial, local and Aboriginal governments which request it;
- be given an integral role in developing carbon budgets and budget implementation plans (discussed in Parts III and V), and evaluating progress towards achieving those budgets. The government should be required to respond to the Committee's recommendations and give reasons where the recommendations are not being followed;
- be required to monitor and report on the progress of governments to mitigate climate change and its impacts, including the success or failure of measures intended to meet carbon budget and/or reduce GHG emissions; and
- be empowered to conduct its own research and monitoring where it deems it necessary to demonstrate how carbon budgets can be, or why they are not being, met.

## Environment Commissioners

Experts panels are not the only way of obtaining transparency and an arms-length review of government action on climate change. For many years now the Parliament of Canada and the Legislature of Ontario have appointed Commissioners who are responsible for monitoring and reporting on the government's progress on protecting the environment.

The Commissioners have already waded in on climate change progress. Canada's Commissioner for Environment and Sustainable Development has critiqued the federal government's lack of progress on addressing climate change in reports to Parliament made in 2014 and in multiple previous years since at least 1998. Similarly, Ontario's Environmental Commissioner released very specific reviews of Ontario's plans to address climate change each year since 2008.

Both the federal and Ontario Commissioners' have provided useful and timely independent evaluations of governmental progress on climate change. However, Commissioners cannot serve all the same functions of a broader expert committee. For example:

- an expert committee can include a wider range of expertise than a single Commissioner;
- by including regional representation, as well as non-governmental experts, a Committee could have a national credibility and perceived independence that would be difficult for a single individual to cultivate; and
- an expert committee is intended to provide detailed expert input into the development of Carbon Budgets and Budget Implementation Plans, while the Commissioners typically play more of a watchdog function.

For these reasons, we recommend the creation of an Expert Committee, rather than the use of a single Commissioner or other officer of the Parliament or Legislature, to inform action on climate change.

As discussed in Part VI, a province's acceptance of the recommendations of the Science Committee, and/or the Science Committee's evaluation of the progress of a province to achieving carbon budget goals, could play a role in allocating funding from the federal government.

The structure for the Science Committee could most easily be created by the federal government, but obviously should have the buy-in of the provincial governments.

While such a body would formally be advising the federal government and those provincial governments that agreed to participate (and possibly local governments created by them), we would hope that the reports and findings of this body would become politically difficult for the other provinces and the federal government to ignore.

**RECOMMENDATION: That the federal government, in conjunction with the provincial governments, create a permanent and independent national Science Committee charged with advising all levels of government on greenhouse gas reduction targets, budgets, planning and implementation, and with evaluating progress towards achieving those targets and budgets. This Science Committee should include representatives nominated by the provinces.**

## PART V – Budget Implementation Planning

There is no point in having a carbon budget, or a target, if nothing is done to achieve the result. By looking at best practices for planning from Canada and the U.K. we can make recommendations about what needs to be in a national climate framework for Canada related to developing, and implementing, plans.

Ideally, a target needs to spark discussion and planning of how to stay within the budget and, ultimately, implementation of those plans.

As discussed in Part III, as a nation we took few steps to achieve Canada’s 1998 Kyoto commitment of a 6% reduction as compared to 1990 levels by 2012. By 2006 our emissions levels had risen to 24% above 1990 level, which allowed a new Conservative government to credibly claim that the Kyoto target was not achievable.

That new government set national targets for 2020 (in 2007 and again in 2009), and again failed to take substantial action to achieve them. An Environment Canada report in 2014 confirmed that Canada’s emissions by 2020 are likely to be about 2% below its 2005 levels (well short of the government’s target of a 17% reduction below 2005 levels, and an increase of almost 20% over 1990 levels).<sup>65</sup> The bulk of the reductions contributing to that 2% reduction were due to provincial, not federal action.

During this time Canada did, at least for some of this period, have a planning framework in place in the form of the *Kyoto Protocol Implementation Act* (KPIA). This legislation required the government to prepare annual Climate Change plans, including “a description of the measures to be taken to ensure that Canada meets its obligations under ... the Kyoto Protocol.”<sup>66</sup> As discussed in Part IV, the KPIA also required the NRTEE to review the plans and advise the Minister on (among other things) “the likelihood that the proposed measures or regulations will enable Canada to meet its obligations” under the Kyoto Protocol.<sup>67</sup>

However, the Canadian government did not follow the intent of this legislation – preparing reports that did not attempt to achieve the Kyoto Protocol commitments, and which instead simply stated that the government would not achieve the Kyoto Protocol targets and re-iterated its own plans. Thus the 2011 review of the KPIA Plan, the last such report prepared by the NRTEE, stated:

According to the KPIA Plan, “Domestic emissions are expected to be some 805 Mt above Canada’s Kyoto Protocol target of 2792 Mt during the 2008–2012 period.” The NRTEE considers this estimate reliable.<sup>68</sup>

The federal government during this period made its feelings about the Kyoto Protocol targets clear throughout its mandate, and ultimately withdrew from the Protocol, repealed the KPIA and eliminated the NRTEE. In our view, the failure of the federal government to achieve meaningful reductions under the KPIA has less to do with

<sup>65</sup> Environment Canada. Canada’s Emissions Trends 2014, available on-line at <https://www.ec.gc.ca/ges-ghg/default.asp?lang=En&n=E0533893-1>. See also a report of the Environment and Sustainability Commissioner that reached similar conclusions in 2012: [http://www.oag-bvg.gc.ca/inter-net/English/parl\\_cesd\\_201205\\_02\\_e\\_36774.html](http://www.oag-bvg.gc.ca/inter-net/English/parl_cesd_201205_02_e_36774.html). Both last accessed 29 October 2015.

<sup>66</sup> *Kyoto Protocol Implementation Act*, S.C. 2007, c. 30, s. 5(1)(a).

<sup>67</sup> *Ibid.*, s. 10(1)(b).

<sup>68</sup> NRTEE. *Response of the National Round Table on the Environment and the Economy to its Obligations Under the Kyoto Protocol Implementation Act* (NRTEE, Ottawa: 2011), p. 27.

“The federal government has not provided sufficiently focused coordination to meet its ... target jointly with the provinces...”



the planning framework in the act, and more to do with the government’s attitudes towards the Kyoto Protocol and/or greenhouse gas reductions. That being said, the KPIA should have given the NRTEE a stronger role in proposing content for plans to achieve GHG reductions.

The federal government, even before the repeal of the KPIA, did not have a credible plan to achieve its stated greenhouse gas reduction targets. It is worth noting, in particular, that the federal government indicated that it planned to rely upon provincial action in achieving the national goal, but there was no mechanism to track the expectations in relation to each province. As the Commissioner for the Environment and Sustainable Development explained in 2014:

[T]he federal government has not provided sufficiently focused coordination to meet its commitment of achieving the national 2020 emission reduction target jointly with the provinces and territories, or to address the need for further reductions beyond that date. ...

The absence of effective federal planning, including unclear timelines, leaves responsible organizations at all levels without essential information for identifying, directing, and coordinating their reduction efforts. It also means that there are no benchmarks against which to monitor and report on progress. For example, industries that may be affected by regulations cannot plan their investments effectively. In our view, the lack of a clear plan and an effective planning process is a particularly significant gap given that Canada is currently projected to miss its 2020 emission reduction target.<sup>69</sup>

The Commissioner’s office made some specific recommendations for a national planning process which are important to note:

Environment Canada, working with other federal departments and agencies, should put in place a planning process that includes the following elements:

- a quantitative description of what contribution the federal government will make to Canada’s 2020 target and to reducing emissions beyond 2020;
- a detailed description of what measures it will take to do its part in achieving the national target, including planned timelines;
- a regular review to assess progress and identify how plans will need to be adjusted, if necessary (this should include the provinces and territories); and
- a regular report to Parliament so that Canadians understand what has been achieved and what remains to be done.<sup>70</sup>

<sup>69</sup> Commissioner, above, note 14, pp. 16-17.

<sup>70</sup> Ibid., p. 17.



## Provincial Implementation

If the federal government has failed to put in place a plan to achieve its greenhouse gas reduction targets, how have the provinces done?

Well, some provinces at least have prepared more structured plans, including ambitious features such as North America's most comprehensive carbon tax (BC) and the phase out of coal fired generation (Ontario). In particular, Ontario and Quebec, and to a lesser extent BC, appear to show that careful planning can assist in achieving a province's GHG targets, although even then there are challenges:

### Ontario

Ontario's Action Plan on Climate Change (2007) identified sector specific policies aimed at targeted reductions in each sector. The most dramatic action taken by the province was the closing of its coal-fire electric plants, which saw a major drop in emissions from electrical generation in the province.

Until recently it was not clear what the next steps would be for the province to achieve its 2020 target. In 2014 the province's Environmental Commissioner wrote:

The report shows that the government will likely meet its 2014 target (a 6% reduction in emissions below 1990 levels) largely because of the shutdown of the province's coal plants. "But it's not going to meet its 2020 target," says Miller, "because it has taken very little additional action to implement the Climate Change Action Plan it released seven years ago."<sup>71</sup>

Since then, however, the province has jointed Quebec and California in a cap and trade system intended to price carbon and drive down GHG emissions, as well as taking other measures, and this year's review by the Commissioner is moderately more optimistic, although still cautionary:

The Ontario government appears to have met its 2014 GHG reduction target (6% below 1990 levels) – in large part due to the closure of its coal-fired power plants. However, no other significant GHG reduction policies have since been implemented. The policies in place so far will not reduce emissions enough to ensure Ontario achieves its 2020 GHG reduction target of 15% below 1990 levels.

To make real progress towards the province's 2020 and 2050 targets, and the government's recently announced interim 2030 target (37% below 1990 levels), Ontario needs to implement a suite of actions across its economy. ...

There are some encouraging signs of a renewed provincial commitment to climate change action; Ontario's recently renamed Ministry of the Environment and ***Climate Change*** (emphasis added) just announced that it plans to introduce a cap-and-trade system and release a new climate change strategy later this year. ... Ontario has set itself strong targets. Now comes the hard part: delivering the results.<sup>72</sup>

<sup>71</sup> <http://eco.on.ca/2014-ghg-looking-for-leadership/>, last accessed 10 October 2015.

<sup>72</sup> <http://www.eco.on.ca/blog/2015/07/07/feeling-the-heat-2015-greenhouse-gas-progress-report/#sthash.huEhVN8d.dpuf>, last accessed 9 November 2015.

Ontario's climate change system appears to be unique among the provincial planning frameworks in having this type of annual report from an independent expert body evaluating progress towards climate goals and the implementation of the province's climate plans, and clearly the Commissioner's report allows the public to better evaluate progress towards the targets.

## Quebec

*Quebec and Climate Change*, published by the government of Quebec in 2006, sets out an action plan from 2006 to 2012. Quebec's plan has a number of important features, including its relatively short time-frame, and a specific target at the end of that time period (6% reduction from 1990 levels by 2012).

By 2009, Quebec had achieved a 2.5% reduction from 1990 levels – a fact which, in the words of the Minister of Sustainable Development, Environment, and Parks, “fully reveals the challenge that subsequently awaits us,”<sup>73</sup> but by 2012 the province could boast an 8% reduction in greenhouse gas emissions – exceeding its target by 2%.<sup>74</sup>

In 2012, Quebec renewed its plan with a 2013-2020 action plan, which recommits to the 2020 goal of 20% reduction by 2012, relative to 1990 levels.<sup>75</sup> Since then the province has entered into a cap and trade system with California, and more recently Ontario. It is too early to say what effect this is having on Quebec's emissions, although the most recent data suggests that 2013 saw a slight increase over 2012's emissions levels.<sup>76</sup>

## British Columbia

BC's *Climate Action Plan Phase One (2008)* outlined policy measures for every major economic sector and three strategies for reducing GHG emissions: a carbon tax, carbon trading and a carbon neutral government.<sup>77</sup>

One detailed, the lists of measure do **not** have specific emissions reductions targets or estimates associated with each step. Moreover, the government admitted that the plans, even when adopted, would “take B.C. approximately 73 per cent towards meeting the goal of reducing greenhouse gas emissions by 33 per cent by 2020.”<sup>78</sup>

BC's carbon tax has been much applauded for beginning to “decouple” BC's economic growth from fossil fuel use, and the province met its short-term (2012) targets (a 6% reduction in GHG emissions relative to 2007 levels).

<sup>73</sup> *Quebec in Action: Greener by 2020: 2013-2020 Climate Action Plan*, at p. iii, available on-line at [http://www.mddelcc.gouv.qc.ca/changements/plan\\_action/pacc2020-en.pdf](http://www.mddelcc.gouv.qc.ca/changements/plan_action/pacc2020-en.pdf), last accessed 9 November 2015.

<sup>74</sup> Above, note 65, p. 52.

<sup>75</sup> Ibid.

<sup>76</sup> Above, note 65, p. 52.

<sup>77</sup> British Columbia's Climate Act Plan Phase 1 2008 available online at [http://www.gov.bc.ca/premier/attachments/climate\\_action\\_plan.pdf](http://www.gov.bc.ca/premier/attachments/climate_action_plan.pdf), last accessed 29 October 2015.

<sup>78</sup> [http://www2.news.gov.bc.ca/news\\_releases\\_2005-2009/2008OTPO168-000997.htm](http://www2.news.gov.bc.ca/news_releases_2005-2009/2008OTPO168-000997.htm), last accessed 9 November 2015. This rather obvious disconnect between the plan and the targets was highlighted in the Pembina Institute's report, *Mind the Gap*, released in 2007, available on-line at <http://www.pembina.org/pub/1550>, last accessed 9 November 2015.

However, the province's greenhouse gas emissions have since begun rising, and further targets are unlikely to be met without aggressive additional action.<sup>79</sup> This is particularly true since the BC government has been aggressively promoting the expansion of the GHG-intensive liquid natural gas industry, without explaining how it plans to reconcile those goals with the GHG-reduction targets.<sup>80</sup>

To its credit, BC has recently begun a new Climate Leadership Plan which is intended to identify further strategies to achieve its goals, but the results of this process are not available at present.

## Goals related to planning and implementation

From this review of three province's climate plans, as well as the planning that was required under the *Kyoto Protocol Implementation Act*, we can draw certain conclusions:

- **Interim Targets** – All three provinces did develop short-term targets, rather than just relying (as the federal government did) on a 2020 or similar long-term target.
- **Periodic updates of plans** – Planning is an iterative process, and needs to be updated and renewed on an ongoing basis. This can be achieved through relatively short and predictable planning periods, with interim targets.
- **Expert review of plans and progress** – The presence of an independent expert body to review plans to see if they will credibly achieve targets, and to review the implementation of those plans and progress towards the targets, is very useful in planning and implementation. A permanent body that plays this role is probably more reliable than an ad hoc committee. Similarly, a transparent and credible scientific process helps the public evaluate the progress that governments are making towards scientifically-justified goals.

## Budget Implementation Planning in the UK

A look at how climate mitigation planning framework occurs in the UK quickly demonstrates the benefits to a carbon budgeting approach for **planning**. Because the focus of carbon budgeting is on how much can be emitted, it's possible to break up a carbon budget in different ways – allocating emissions quotas to different sectors or regions – while still allowing for over-arching coordination.

In the U.K. the implementation of the carbon budget has been led throughout by the Department of Energy and Climate Change (DECC). In July 2009, DECC published

<sup>79</sup> Environment Canada. National Inventory Submissions 2015, Part 3, p. 62 submitted to the UN-FCCC April 2015 and available at [http://unfccc.int/files/national\\_reports/annex\\_i\\_ghg\\_inventories/national\\_inventories\\_submissions/application/zip/can-2015-nir-17apr.zip](http://unfccc.int/files/national_reports/annex_i_ghg_inventories/national_inventories_submissions/application/zip/can-2015-nir-17apr.zip). See also D. Meisner. B.C. meeting GHG targets, but not for long. Published on Global News website, 25 September 2015, available at <http://globalnews.ca/news/863533/b-c-meeting-ghg-targets-but-not-for-long>, both last accessed 29 October 2015.

<sup>80</sup> M. Lee. BC's Legislated Greenhouse Gas Targets vs Natural Gas Development (CCPA, Vancouver: 2012), available on-line at [https://www.policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2012/10/CCPA-BC\\_GHG-Targets-vs-Natural-Gas.pdf](https://www.policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2012/10/CCPA-BC_GHG-Targets-vs-Natural-Gas.pdf), last accessed 29 October 2015.

A carbon budget ... [allows] consideration of component pieces of the economy while not losing sight of ... the big picture.



the U.K. Low Carbon Transition Plan (LCTP),<sup>81</sup> which was presented before Parliament as per the Climate Change Act 2008. In December 2011, this plan was replaced by a new Carbon Plan.<sup>82</sup>

Both plans were a high-level plan outlining how the U.K. intends to meet its carbon budgets, setting out specific policies and initiatives intended to result in emissions reductions between 2009 and 2020, ranging from energy efficiency initiatives to carbon pricing initiatives. It is a comprehensive planning document focusing action on the power sector, homes and communities, workplaces and jobs, transport, farming, land management and waste with estimated carbon savings and timelines.

The tools identified by plans are in keeping with plans for tackling climate change in many countries. It is not a perfect plan. That being said, both plans included an evaluation of each policy's contribution to achieving the national carbon budget, and broke down the budget in terms of sectors.

A carbon budget, in our view, facilitates this type of analysis – allowing consideration of component pieces of the economy while not losing sight of where that part of the economy's emissions fit within the big picture.

The LCTP went a step further, and allocated responsibility for ensuring that the results are met to government departments by creating a series of Departmental carbon budgets. A government report, *Climate Change: Taking Action*, explained that these budgets were intended to require government agencies to integrate climate change into their own planning:

[E]ach major government department had been given a share of responsibility for the total carbon budget, which it would be accountable for delivering. To underpin the delivery each department committed to producing a Carbon Reduction Delivery Plan (CRDP) setting out in detail the actions the department would take on its own and in collaboration with others to reduce GHG emissions....<sup>83</sup>

The Departmental Carbon budgets were based not just on direct emissions from that department, but also on “an allocation to a number of departments to reflect the policies available to them and/or the degree of influence they have in reducing emissions in various sectors of the economy.”<sup>84</sup>

The Departmental Carbon budget process was subsequently dropped by the U.K. government, in the Carbon Plan, with the government citing concerns that the approach was too controlling, and that Departments were being held accountable for things that were outside of their control.

81 Available online at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/228752/9780108508394.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228752/9780108508394.pdf), last accessed 3 November 2013.

82 <https://www.gov.uk/government/publications/the-carbon-plan-reducing-greenhouse-gas-emissions--2>, last accessed 3 November 2015.

83 UK. *Climate Change: Taking Action*. (2010), available online at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69256/pb13359-cc-taking-action-100325.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69256/pb13359-cc-taking-action-100325.pdf), last accessed 3 November 2015.

84 *Ibid.*, p. 15.

This decision which was criticised by the House of Commons Environmental Audit Committee, which wrote:

Departmental Carbon Budgets could provide a useful way of understanding the quantum of effort required by each department and provide a way focusing departments' policies in their sphere of influence on their emissions reduction impacts. ... The Government should consider how incentives for departmental action could be built into the final Carbon Plan.<sup>85</sup>

Regardless of the merits of those particular structures, the U.K. planning framework demonstrates that a carbon budget approach facilitates meaningful carbon budget planning.

### Carbon Budget Planning in Canada

Based on the lessons of the U.K. and Canadian provinces, there are significant advantages to using carbon budgets as a basis for planning for greenhouse gas reductions:

- Carbon budgets allow the allocation of responsibility for reductions into more detailed budgets; these more detailed budgets will themselves be set based upon planning that identifies the opportunities available to meet the national target;
- Carbon budgets guide planning by providing clear and readily understandable goals that proceed incrementally towards the final emissions reduction goals;
- Carbon budgets foster accountability by forcing decision-makers to develop clear plans for progress towards emission reduction goals, allowing for ongoing evaluation of the success or failure of the plans; and
- Independent scientific advice can strengthen the credibility of these plans and confirm progress to achieving planning goals.

This type of planning, and the implementation of those plans, is facilitated by the carbon budgeting process described in Part III. As noted, targets expressed in terms of a percent reduction relative to a base year, achieved by a target year, cannot be easily broken up into areas of responsibility. It is difficult to determine how a given action (perhaps expanding public transportation) relates to achieving the target, unless each sector or agency takes on equal responsibility for achieving the targets (which would be ridiculous, as clearly reductions can be achieved more quickly and aggressively in some sectors than others). Similarly, government actions which are inconsistent with the targets (such as the expansion of highways) are not evaluated against their contribution to achieving or not achieving the target, since it is not clear to most people whether anyone expected the province-wide target to be achieved by reduced emissions from vehicles, and to what degree.

<sup>85</sup> House of Commons Environmental Audit Committee. Seventh Report of Session 2010–12, pp. 24–25, available on-line at <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmen-vaud/1080/1080.pdf>, last accessed 9 November 2015.



By contrast, under a budget approach the relationship between each increase or decrease in emissions and the budget for a given time period is very clear. Each increase in emissions increases the likelihood that the budget will be exceeded and demands an explanation about how these new emissions will be compensated for in the rest of the budget.

As recommended by the Commissioner of the Environment and Sustainable Development, Environment Canada should play a lead role in facilitating and coordinating the multiple budgets, and ensuring that they meet a national budget.

**RECOMMENDATION: Environment Canada should lead a process in which each province and the federal government develops and adopt carbon budget implementation plans, demonstrating how their carbon budgets and the national carbon budget will be achieved. Such plans should fully “cost” the different sources of emissions, demonstrating that the measures undertaken are likely to achieve the carbon budgets at the relevant points in time. Where it becomes clear that budgets will not be met, the process must provide for the updating of the budget implementation plans.**

## Part VI - Accountability and Incentives

Carbon budgeting encourages and facilitates more rigorous and measurable plans. But how does that translate into better implementation of those plans and ensuring that results are achieved on the ground? Ultimately Carbon Budgets, and Budget Implementation Plans, are simply planning tools. As with financial budgets, the best budget in the world will not work if people fail to follow its direction.

There is no one silver bullet that will ensure that carbon budgets are met. As Canada's experience with the *Kyoto Protocol Implementation Act* has demonstrated, planning structures can be defeated by a government determined not to cooperate with the goals of the planning process.

Nonetheless, as with financial budgets, there are ways to encourage governments and agencies to meet their carbon budget. These include:

- Transparency and accountability measures that allow the public to evaluate towards meeting carbon budgets;
- Direct requirements for the government to consider carbon budgets and/or implement budget implementation plans in their decision-making and in developing new laws and policies; and
- Incentives to achieve budgeted reductions through a federal coordination and funding role modeled on the *Canada Health Act*.

Each of these approaches will be discussed below.

### Transparency and accountability

Canadian carbon budgeting should put in place measures to ensure that budgeting is transparent and that government is accountable for setting and achieving the budget.

Probably the single most important measure for transparency and accountability is a regular arms-length evaluation of progress to achieving Carbon Budgeting goals. If the Scientific Committee described in Part IV is created, then the easiest way of achieving this goal is to require the Committee to periodically review each government's progress towards realising 5 year Carbon Budgets.

This need for regular evaluations also helps explain the importance of short budget periods, which chart a course to the long-term goals. It is far easier to evaluate progress towards a 5 year goal, then a 20 year goal.

It is important that the Scientific Committee be given a sufficiently broad, independent and prominent role in evaluating this progress. The *Kyoto Protocol Implementation Act* gave the National Round Table on the Environment and Economy (NRTEE) the responsibility of reviewing plans tabled by the Minister of the Environment under that Act. However, other than requiring NRTEE to report on the likelihood that the report would successfully achieve its targets, the mandate of the NRTEE was vague. It did not, for example, explicitly require the NRTEE to propose measures that would meet the Kyoto targets. And it certainly did not require the Minister to respond to and explain any political decision not to implement the NRTEE's recommendations.

## Indicators and monitoring plans

Indicators are a valuable tool in monitoring progress and measuring the extent to which plans are achieving their goals. They have the potential to focus monitoring, inform policy development and communicate climate change action to the public.<sup>1</sup> Indicators can be standardised and implemented across Canada to ensure consistent monitoring and reporting, or they could be developed specifically to take into account provincial or sectoral differences.

For mitigation, the most obvious indicator is GHG emissions. Monitoring emissions alone however will not suffice given the number of factors that drive emissions and the fact that measuring emissions increases or reductions provide no explanation as to why they have risen or fallen. A range of indicators should be used and could include measurements of: average household energy use, percentage of power produced from renewable sources, and percentage of older buildings with insulation, to name a few.

It may also be useful to standardize indicators for government progress in preparing for and adapting to climate change, since adaptation efforts are geared to addressing climate impacts that may not show up for years. Standardizing such indicators may be challenging, as the differing needs of regions and communities makes a single indicator series harder to develop. Nevertheless certain common indicators could be used including percentage of population living in hazard prone areas, availability of sustainable water abstraction, and abundance of key species.

Indicators would be best implemented in planning documents from National through to local government levels. Some indicators for example GHG emissions should be used in all plans – a set of indicators or indicators guidance should be given at the federal level to ensure there is some consistency across Canada. Sector and area specific indicators should also be developed and consistently used by decision makers.

<sup>1</sup> M Harley et al. Climate change vulnerability and adaptation indicators. ETC/ACC Technical Paper 2008/09 (European Topic Centre on Air and Climate Change, December 2008) at 1

The experience of the *Kyoto Protocol Implementation Act* demonstrates the need for a proactive and prominent role of the Scientific Committee in monitoring progress towards achieving Carbon budgets.

In addition to empowering the Scientific Committee to monitor progress towards the Carbon Budgets, an effective planning framework should set out clear requirements for the government to monitor and report on progress towards achieving the required GHG emission reductions.

This will ensure decision makers and the plans they create are continually informed. It will also provide a level of political accountability.

In addition to external reviews, both federal and provincial governments should prepare:

- Annual reports of emissions;
- Reports accounting for any failures to meet set budgets;
- Reports on how Budget Implementation Plans have and have not been implemented; and
- Statements at the end of a budgetary period on how and why the budget was or was not achieved.

In some cases it may not be possible to fully attribute GHG emission reductions to particular actions, particularly at early stages of an action. In these cases government agencies should report not just on GHG emission levels, but also on other “indicators” that may measure progress – measures that demonstrate progress towards implementing a specific action.

For example, a report related to government actions aimed at reducing public reliance on the automobile might track the percentage of individuals travelling in single-occupancy vehicles over time, as well as attempting to project the GHG emissions prevented through the action. (See the box opposite on indicators).

In order to maximize public attention on the reports generated by the Science Committee and government agencies, the reports should be delivered to Parliament or (at the provincial level) to the Legislatures, as well as being released publicly.

While enforceable legal requirements are important, this type of transparency can allow public opinion to play its part in ensuring compliance or at the very least in demanding explanations for failures. We hope that this level of public transparency will help encourage the government to strive to realise carbon budgets.

**RECOMMENDATION: Federal and provincial governments, and the Science Committee, should report publicly on a regular basis on progress towards achieving carbon budgets and on the implementation of carbon budget plans.**

### Consideration of carbon budgets

Another option to promote adoption of the carbon budgets, and implementation plans, is to simply amend provincial and federal environmental laws to explicitly empower and require governments to implement and consider a carbon budget when making decisions and policies.

Climate change is a cross-cutting issue, affecting decisions in any number of fields, from urban planning, to resource management, to power generation, to industrial design. Each of these fields are regulated by government agencies and the statutes that govern them.

In many cases, climate change is not front-of-mind for these decision-makers, even though their decisions could have significant impacts on Canada's GHG emissions (and on Canada's ability to adapt to climate change which is already occurring). Indeed, in some cases the statutes require the government decision-makers to limit their consideration to particular issues, and many allow considerations of the impacts on GHG emissions.

For this reason, we believe that a Climate Change Mitigation Planning framework needs to ensure that climate change, and federal and provincial carbon budgets and implementation plans, to be considered in a systematic way when either level of government is making relevant decisions. In particular, we recommend that legislation require federal and provincial governments be required to consider carbon budgets, and their implementation plans, in:

- Government decisions required under a piece of legislation (“Statutory Decisions”); and
- The development of government laws and policies.

### Statutory Decisions

A government decision-maker making a decision governed by a statute must consider all the factors listed in the statute, and may not consider factors not referenced (although many statutes include a general clause allowing consideration of factors that the decision-maker believes to be in the public interest).

It is certainly possible to amend individual pieces of legislation to mandate consideration of climate change. For example, the government of British Columbia, in 2008,

amended that province's *Utilities Commission Act*<sup>86</sup> to explicitly require the BC Utilities Commission (an independent regulatory agency responsible for the regulation of the province's natural gas and electrical utilities) to consider the 'government's energy objectives' in long term planning, project approvals and the award of energy supply contracts. 'Government's energy objectives' is defined to include the government's objectives to "reduce GHG emissions, ..., produce, generate and acquire electricity from clean or renewable sources, ... and to use innovative energy technologies."<sup>87</sup>

However, rather than amending specific laws, another option sometimes used by the Canadian Parliament and some provincial Legislatures in addressing sustainability and environmental objectives is a general requirement that any government decision-maker consider of these objectives prior to a decision being made.

Environmental assessment statutes, for example, generally require government decision-makers to consider environmental impacts in respect of large-scale projects prior to making any decision.

Prior to 2012, the *Canadian Environmental Assessment Act* (the Original CEAA) provided that an assessment of the environmental consequences of a project must be conducted "before a federal authority exercises" its powers, or makes key decisions "in respect of a project..."<sup>88</sup> A new *Canadian Environmental Assessment Act* enacted in 2012 (CEAA 2012) restricted the preparation of environmental assessments and the requirement to consider environmental impacts to certain large-scale projects and to decisions actually involving federal lands,<sup>89</sup> which undermines the value of environmental assessments as a tool to incorporate climate change into decision-making across government. However, the principle – that government can simply enact a law requiring consideration of certain factors as a pre-condition of acting under another statute – remains the same.

In terms of the federal government, the Liberal platform included a number of campaign promises related to restoring strong environmental assessment laws, including, notably, a promise to consider greenhouse gas emissions in such assessments:

We will explore, consult, and work collaboratively to move towards a system where federal environmental assessments of projects include an analysis of upstream impacts and the greenhouse gas emissions resulting from the projects being assessed.<sup>90</sup>

Assuming that a newly revised environmental assessment act has the scope of the Original CEAA, it would be relatively straightforward to require government agencies to consider climate change and carbon budgets and plans in the context of the requirements of this act.

That being said, it is important that the Act do more than just require "consideration" of climate change – but that that guidance be given to those considering the

<sup>86</sup> *Utilities Commission Act*, [RSBC] 1996 Ch 473, amended by the *Utilities Commission Amendment Act 2008*, S.B.C. 2009, c. 13.

<sup>87</sup> *Ibid*, section 1.

<sup>88</sup> *Canadian Environmental Assessment Act*, S.C. 1992, c. 37, s. 5.

<sup>89</sup> CEAA 2012, S.C. 2012, c. 19.

<sup>90</sup> Above, note 45, p. 9.

GHG impacts of a project. A climate budget, and sectoral budgets or plans supporting it, may provide such guidance.

In 2008, a panel constituted under the Original CEAA assessed the climate impacts of the Kearsy Oil Sands Project, finding that the 3.7 million tonnes of GHG emissions associated with the project represented a 0.51% increase in Canada's GHG national emissions, but nonetheless represented a **globally** insignificant environmental effect.<sup>91</sup> While we disagree with that approach, clearly a different answer might have been reached if the panel had considered whether the project was significant in terms of Canada's national target for greenhouse gas reductions by 2015 or 2020. The legislation might require a government decision-maker, or panel conducting an assessment, to explain what amendments had to be made to a carbon budget implementation plan to accommodate these additional emissions at the national level while still achieving the carbon budget.

Because CEAA 2012 and most provincial environmental assessment legislation do not apply to all government decisions, but only to decisions involving very large or dangerous projects, these statutes cannot by themselves integrate consideration of a carbon budget into all federal or provincial government decisions.

If there is not an appetite to broaden the scope of CEAA 2012, or provincial statutes, then the simplest amendment would probably be a basic provision stating a general obligation to consider carbon budgets, such as:

- (1) In exercising a power of decision under any Act that is related to climate change, the emissions of GHGs or adaptation to climate change, and notwithstanding anything in that Act, a statutory decision-maker must consider:
  - (a) the impacts of the decision on the government's ability to achieve its current and future carbon budgets, including considering any implementation plan related to the carbon budgets;
  - (b) greenhouse gases resulting from their project and their impact on the global atmosphere, whether covered by a carbon budget or not; and
  - (c) the impacts of the decision on the ability of the province and its citizens to adapt to a changing climate.
- (2) If the exercise of a power referred to in (1) might, by itself or in combination with other decisions, contribute to the government failing to meet its current or future carbon budget, the statutory decision-maker shall:
  - (a) refuse to exercise the power referred to in (1);
  - (b) exercise the power, but attach conditions that will ensure the carbon budget is met; or
  - (c) recommend that the Carbon Budget Implementation Plan be amended to ensure to ensure that the exercise of the power is will not undermine achievement of the Carbon Budget.

<sup>91</sup> <http://www.ceaa.gc.ca/052/document-html-eng.cfm?did=26766>, last accessed 9 November 2015. This decision was, of course, after the panel was ordered to re-examine its conclusions on climate change by the Federal Court, Trial Division in *Pembina et al. v. Canada*, 2008 FC 302.



Such a provision would allow members of the public to insist that climate change be considered in a wide range of statutory decisions that have a direct bearing on GHG emissions or otherwise relate to climate change.

**RECOMMENDATION: Federal and provincial governments should amend their laws to ensure that carbon budgets, and carbon budget implementation plans, are incorporated into all relevant government decisions.**

### Considering non-budget greenhouse gas emissions

Canada's responsibility for the greenhouse impacts of Canadian projects should not end at the border. International agreements treat the country where GHG emissions actually occur as legally responsible for the emissions, and the carbon budgeting framework described in this report is aimed at reducing those emissions. However, oil, gas or coal shipped from Canadian ports will be burnt and enter the global atmosphere,

even if those emissions don't appear in Canada's national budget. As promised in the Liberal platform, these emissions must be considered in environmental assessments of projects alongside those that occur in Canada. However, a Canadian carbon budget, at least as proposed in this framework, would not necessarily provide direct guidance in relation to such emissions.

### Government policies and laws

It is important that individual decision-makers consider the carbon budget when make decisions, but it equally important that government agencies, and the federal and provincial governments as a whole, consider their budget in designing programs, creating policies and enacting laws that had an impact on GHG emissions.

A carbon budget will not be met if laws and government programs are inconsistent with the goal of reducing GHG emissions. While a transparent budget implementation planning process may help, its focus will generally be on the initiatives intended to achieve GHG reductions.

It's also necessary to ensure that other government initiatives, not directly focussed on GHG emissions, are not moving in the opposite direction. For example, one of the great criticisms of BC's otherwise strong efforts to achieve climate change targets has been the lack of consistency between its climate change work and its efforts to expand development of the LNG industry.

As with individual decisions, there are examples of legislation requiring the consideration of sustainability or environmental protection as a general principle in the development of policies and laws. Such an approach could be adapted to require consideration of a much more specific carbon budget.

One of the best examples of such legislation is Ontario's *Environmental Bill of Rights*. Under this statute:

- Government ministers must give public notice, and invite comments on the impacts of, any proposed law, policy, regulation or instrument that may have a significant impact on the environment; and
- Members of the public may petition for reconsideration of laws and policies that could better protect the environment.<sup>92</sup>

Certainly a climate change mitigation framework would benefit considerably from requiring government to consider whether its proposed and current laws, policies, regulations or instruments will help or hinder the government's efforts to achieve its carbon budget.

Given the huge challenges inherent in climate change, an initial first step would be to require all ministries and government agencies to prepare a report describing how the laws, policies and regulations that they administer further or hinder the goals of the Carbon Budget: essentially a carbon audit of the government's legal and policy frameworks. Such a report can help inform budget implementation planning, as well as identify opportunities to change existing rules to aid in fighting global warming.

Moving forward, a general requirement to evaluate the impacts of new legal changes, and to investigate complaints about existing one, and to report publicly on those impacts, would undoubtedly strengthen a climate change mitigation framework, and minimize the risk of government action that undermines action on climate change.

**RECOMMENDATION: Federal and provincial governments should enact laws requiring the evaluation of the impact of any new laws or policies on the government's ability to meet its carbon budgets.**

### Revisiting the Canada Health Act

As discussed in Part II, the current Canadian government has pledged to work collaboratively with the provinces on climate change. This report has set out a framework for:

- A science-based approach that provides consistent scientific advice and information to all levels of government;
- Setting short-, mid- and long-term carbon budgets/targets at provincial and national levels that can be easily compared and combined to create a national carbon budget/targets;
- A planning process directly linked to achieving carbon budgets that incorporates scientific advice; and
- Legal tools for incorporating carbon budgets into government decisions.

<sup>92</sup> *Environmental Bill of Rights*, 1993, S.O. 1993, c. 28, ss. 12-26, 61-73.

While the process is intended to foster collaboration between the provinces, the provinces do need to buy into this framework. And here the experience of the *Canada Health Act* – and act which resulted in a unified national approach to health care based largely on federal funding and incentives – provides an important model.

Canada’s new government has already promised that it is willing to pay federal funds to the provinces to assist them in achieving their greenhouse gas reduction goals:

As part of the comprehensive emissions reduction agreement with provinces and territories, we will provide targeted federal funding to help them achieve these goals.<sup>93</sup>

While this funding is unlikely to be of the scale of the funds administered under the *Canada Health Act*, federal funding has the potential to offer provinces a significant incentive to participate in a carbon budgeting framework. These funds could be linked, at least in part, to:

- Adopting carbon budgets that are consistent with the recommendations of the Climate Change Committee;
- Preparing carbon budget implementation plans that the Climate Change Committee agrees will meet the carbon budgets;
- Implementing carbon budget implementation plans; and
- Meeting or exceeding carbon budgets.

Canadians have seen that a lack of consequences can undermine a legal framework intended to address climate change.

This is not to suggest that federal funding alone will result in a coherent national carbon budget and supporting plans, and the federal government may need to consider more active involvement should individual provinces not play their role.

At the end of the day political will is required to address the problems of climate change. However, a national approach, supported with federal funds, can play a role in strengthening that political will.

**Recommendation: Based on the model of the *Canada Health Act*, the federal government should provide funding to the provinces based on their effective and good faith participation in the carbon budget framework.**

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<sup>93</sup> Above, note 45, p. 4.



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