



Canada's Power Play

The Case for a Canadian Energy Strategy for a
Carbon-Constrained World

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GETTING IT RIGHT PROJECT

Other Getting it Right Project Reports :

Getting it Right: A Canadian Energy Strategy for a Carbon-Constrained Future, by Dr. Roger Gibbins (November 2007). This paper suggests a set of principles to inform the design of a Canadian Energy Strategy.

Building On Our Strengths: An Inventory of Current Federal, Provincial and Territorial Climate Change Policies, by Jillian Bollinger and Dr. Kari Roberts (February 2008). This report presents a basic inventory of current federal, provincial, and territorial climate change policies aimed at reducing greenhouse gas (GHG) emissions by changing how we produce and consume energy.

Setting an Example: Combating Climate Change in North America, by Dr. Kari Roberts (April 2008). This report outlines notable public policy efforts in select jurisdictions in Canada and the United States to address the challenge of climate change.

Getting it Straight: A Guide to Economic Policy Instruments for Addressing Climate Change, by Erin Mullinger (April 2008). This report provides a layperson's guide to the main economic policy instruments available for addressing climate change with a focus on energy production and greenhouse gas emissions reduction.

Energizing the Climate Change Debate: A Principled Framework for Canadian Energy Policies Within a Carbon-Constrained World, by Dr. Roger Gibbins and Dr. Kari Roberts (June 2008). This paper proposes a broad set of principles to inform the public policy framework within which individual and corporate decisions may be taken.

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Executive Summary

Canada's Power Play is the culmination of a series of energy sector consultations across western Canada. Roundtables were held in British Columbia, Alberta, Saskatchewan, and Manitoba in April 2008 to take the pulse of western Canadian energy sector experts and stakeholders on the subject of energy policy in Canada. A rough consensus emerged among participants concerning Canada's energy priorities, the need to address climate change when designing energy policy in Canada, and the need to strike a fair and regionally respectful balance between environmental and economic sustainability. Put simply, the economy should not be compromised by action on climate change and regional differences should be taken into account.

This report identifies ten themes that emerged from the roundtable consultations, and that should inform energy policy discussions in Canada. The report argues that the *time has come to articulate Canada's energy goals* and to design a *Canadian Energy Strategy* that incorporates the interests and strengths of all of Canada's provinces and major urban centres, and asks provinces, cities and the federal government to work together to identify priorities, coordinate policy development and integrate their climate change and energy policies. Canada cannot achieve its energy goals without ensuring their design and implementation are national in scope. Prime Minister Stephen Harper's vision of Canada as a *clean energy superpower* is one that demands a clean energy *strategy*; it will not be achieved by default.

The report argues that a Canadian Energy Strategy should:

- coordinate federal, provincial, territorial and municipal energy policy initiatives; these inter-jurisdictional consultations about our national energy goals must occur quickly, decisions must be made, and be put to Canadians, in a reasonable timeframe;
- establish hard energy production targets across a range of energy sources (e.g., wind, solar, nuclear, oil, natural gas, coal, hydro) for both domestic consumption and export that go beyond dealing with GHG emissions and develop policy scenarios for meeting these goals;
- be compatible with and inform a national climate change strategy;
- be broad in scope, moving beyond regulation and beyond singular initiatives such as carbon capture and storage;
- take into account both international realities and the need for continental policy coherence;
- recognize the potential social and economic costs associated with transforming our energy needs/demands;
- stress energy conservation, with market-based incentives to encourage both conservation and the more general behavioural changes necessary to animate an effective climate change strategy;
- send appropriate price signals to incent change (e.g., putting a price on carbon through a cap and trade system or a carbon tax);
- recognize the need for public investment in research and technology; and
- be built for the long haul, recognizing that many aspects of an effective energy strategy may take years, decades and even generations to accomplish; strategies must be designed to help us make the transition from where we are today to where we want to be.

The report notes the increasingly blurred lines between energy and climate change policy and recommends that, while governments have made strides toward setting climate change goals, these are, and should be recognized as, distinct from energy goals. If our goal is to become a *clean energy superpower* (a designation that *implies* efforts to address climate change, to be sure), then we must decide what we will use this status for, the kind of energy we want to produce, how much we need, where it will come from and at what cost, and then set the appropriate timelines.

Climate change has arguably influenced the desire to "go clean," but we must keep our eye on the energy policy ball and set goals that will enable us to use our energy capital to be global leaders, promote our values, and produce energy in a way that is best for Canada. Western Canadians are not unduly concerned about a *Canadian Energy Strategy*, provided that such a policy is truly national (as opposed to federal), recognizing provincial policies as integral components and taking into account regional differences in energy circumstances. In short, not any old strategy will suffice; if we wish to avoid a crisis in the federation, economic pain, energy supply shortfalls and rising GHG emissions, we must *get it right*.

Preface

In a speech to an environmental conference in Montreal on March 22, 2007, Prime Minister Stephen Harper stated, “I think our situation is such that we can become one of the largest producers of oil, gas, uranium and electrical energy and we’ll continue to be. But, with great energy power comes great environmental responsibility.” In this context, the Prime Minister declared, “Canada must not be merely an energy superpower, but a clean energy superpower.”

We support this goal while recognizing that it is indeed a goal and not a reflection of current realities. As an aspiration, it calls for a clear articulation of what Canada’s energy future should look like, and a strategy for taking the country to that destination. Aspirations without supporting strategies will not serve Canadians well in an uncertain future.

***Canada’s Power Play** therefore calls for a Canadian Energy Strategy for a carbon-constrained world. In so doing, we recognize that a great deal of work needs to be done, and we offer only a modest first step. It is significant, however, that this first step comes from the four western provinces whose residents have so much at stake in Canada’s energy future, so much “skin in the game.” The fact that a constructive discussion of a Canadian Energy Strategy can begin in the West augurs well for the national debate that must follow.*

1. Introduction

In April 2008, the Canada West Foundation hosted a series of roundtable consultations that brought together energy sector experts and stakeholders to discuss western Canada’s energy future in an era of carbon constraint. Part of the *Getting it Right Project*, the four roundtables – one each in British Columbia, Alberta, Saskatchewan and Manitoba – sought advice on western Canada’s energy demands, priorities, and opportunities.

The *Getting it Right Project* was triggered by the rapid evolution of the climate change debate and the realization that solutions would likely be found in how we produce and consume energy. Canada’s provincial and federal governments are actively tackling climate change by promoting energy conservation and the reduction of greenhouse gas (GHG) emissions; however, they are largely doing so independently of one another. Thus, there is little policy collaboration on what is a national (and global) problem. For some time, the Canada West Foundation has identified the absence of a national approach to climate change and energy policy as potentially problematic for reasons that were echoed in the *Getting it Right* roundtable discussions and which are discussed below. We have consistently argued that, while governments across Canada agree on the need to reduce GHG emissions, inter-jurisdictional coordination is a prerequisite to effective policy outcomes. At the same time, coordination around an inappropriate set of policy principles, tools and priorities could be even worse than no coordination at all. Hence, the title of the project: *Getting it Right*.

2. Method and Purpose

The purpose of the roundtables was to survey the energy landscape across western Canada and to determine if a regional energy picture emerges. Are there shared goals and priorities across the four western provinces, and are the same sets of problems identified and solutions favoured? We discovered that although the energy landscape varies significantly across the four western provinces, there are in fact a host of shared concerns and some common ideas about how to move toward a more sustainable energy future, while ensuring a robust economy. Indeed, we will argue in conclusion that this admittedly rough and ready consensus provides a useful point of departure for identifying the broad strokes of a *Canadian Energy Strategy* for a carbon-constrained world.

This report reflects the views of the 90+ western Canadians who participated in these consultations on what Canada’s energy future in a carbon-constrained world should look like and what policies would best achieve this goal. Participants were drawn from across

the energy sector, including hydroelectricity providers, renewable energy developers, and oil sands operators. We also heard from academics, NGOs, public policy researchers and government officials at both the provincial and federal levels, as well as municipal representatives. Specifically, the following questions were asked of participants:

- What should your province's energy future look like? Looking ahead, what should Canada's energy priorities be, both from supply and demand side perspectives?
- Who should be responsible for achieving and implementing Canada's energy goals and objectives? What should be the roles of governments and industry in this regard?
- What should be the objectives and underlying principles of energy policy in Canada?
- What should be done and who should do it?

It should be noted that the discussions did not flow rigidly according to the above questions, but that they served as a launching point for the consultations. And although we began by directing the discussions toward energy policy, what occurred were somewhat "muddier" discussions about climate change and energy. This was to be expected, given that the goal was to examine energy policy in a *carbon-constrained world*. The blurring of the lines during the roundtables illustrates rather well the complexity of the issues and the degree to which the climate change and energy files are interwoven.

What follows is not a quantitative review of what we heard at each roundtable, but is instead our distillation of those discussions. (In the interest of accurately capturing the essence of the roundtable discussions, an earlier draft of this report was disseminated to all participants.) We do not want to overstate the degree of consensus that emerged from these meetings, and we note the complexity of views across western Canada. Ultimately, the views of the roundtable participants mirrored those of the public; there was a lack of clarity about *how* to move forward, the appropriate *pace* of action, and *who* should do *what*. Nonetheless, the goal of the roundtables was to find some common ground across the region when it comes to energy priorities in the interest of sketching in a future strategy for energy policy in Canada. This report reflects upon the overarching themes of these roundtable discussions and outlines a set of policy prescriptions that emerged from them.

3. Regional Themes

What, then, are the regional themes that emerged across the four provincial roundtables and 90+ participants?

- Something must be done
- Some degree of policy integration is needed
- Canada needs a balanced policy response to climate change
- Markets have an important role to play
- Energy policy cannot be made in a vacuum
- Don't put all our eggs in one basket
- Governments must provide leadership
- Policy solutions must be reasonable
- The costs of addressing climate change must be shared
- Policy solutions must be fair and equitable

These ten themes, elaborated below, reflect the entanglement of climate change policy and energy policy. While the goal was to discuss Canadian energy policy, the discussion was prompted in the first instance by the challenge of climate change and the need to address it through a reconsideration of Canada's energy goals. The regional themes that emerged from the roundtables reflect the complex relationship between climate change and energy policy, one in which the latter is often subsumed in the former. As we will suggest in conclusion, a pressing analytical challenge is to address energy policy *on its own terms*.

i. Something must be done

Roundtable participants stressed that the time for talk about climate change had passed, and that the time for action – to walk the talk – had arrived. The Nike slogan – “just do it!” – seems to capture the general sentiment, keeping in mind the perennial Canadian question about which government or governments should be doing the doing. However, there was by no means a consensus on what “it” was that needed to be done, nor was there agreement about the degree of urgency for finding energy solutions to the challenge of climate change. It was agreed that some action be taken, goals need to be set, in some instances if only because energy conservation makes good economic sense. Although most participants said that climate change is a problem that should be addressed, many took care to advocate a measured and balanced approach. In other words, *the earth may be warming, but the sky is not falling*. One participant noted, “action is required, but let’s not get carried away.” If we are consumed by panic or an undue sense of urgency, this could impede smart decision-making and reasonable responses.

That being said, for many participants the need to address climate change and the need to find solutions rooted in energy production and consumption demand action. There was some exasperation at the fact that we’ve been talking about climate change for years, and some felt that there had been insufficient movement on this file since the initial signing of the Kyoto Protocol in 1997. Canadians and their governments have been talking about energy conservation and about GHG reductions for a long time, but in the words of one participant, “we’ve had enough talk—we need to get on with it.” But, this call to action was calmed by what one roundtable member called “the art of the long view,” which involves figuring out where we want to be in the long-run, and how to move across a variety of policy fronts to get there. This last point is critical; it is difficult to “just do it” unless there is some agreement about what needs to be done.

ii. Canada needs a balanced policy response to climate change

Related to the aforementioned need to act now, but to act in the long view, was a pervasive belief in the need for a balanced policy response. Few argued that the climate change crisis was so urgent that considerations of economic costs should be set aside, but then no one suggested that economic interests should trump environmental concerns. In short, the issue is not one of choice between the two priorities, but one of balance, of weighing a complex set of trade-offs. The societal and policy challenge is to break the current linkage between economic growth and the growth of GHG emissions by finding ways for environmental and economic sustainability to complement one another rather than compete.

iii. Energy policy cannot be made in a vacuum

From the beginning, we struggled conceptually with putting energy policy, broadly defined, under the microscope. Energy is a large policy area that is attached to so many other policy files, such as transportation, population growth and economic policy (to name just a few). As explained above, the *Getting it Right Project’s* scope is somewhat narrower, zeroing in on energy policy in response to climate change.

That being said, it became even more evident from the four roundtable discussions that it is extremely difficult to extricate energy and climate change policy from the many other related policy files. We were reminded by the Saskatchewan roundtable of the impact of population growth and immigration on energy demand and consumption, by municipal officials in BC and Manitoba of the close relationship between energy consumption and transportation policy, by the BC roundtable of the link between energy and trade, and by Alberta roundtable participants of the importance of energy to economic policy. Energy policy touches on so many other policy files – how we design and retrofit our cities, build our transportation networks, raise taxes, handle international trade, manage our land base, and develop human capital.

Energy policy is a huge policy space, and figuring out *who* should fill it with *what* is a difficult task. In this respect, the broad scope of energy policy raised concerns across the roundtables about our institutional capacity to tackle matters of this breadth either within or across governments. Thus, there is a risk of letting the interconnectedness and complexity of energy policy relegate it to the “too hard” basket. For example, if to get energy policy right means we have to at once get transit policy, urban development, and trade policy right too, then the problem becomes too difficult to solve. Regardless, participants felt there was a clear need to keep the multi-dimensionality of energy policy top of mind in moving forward.

iv. Governments must provide leadership

The precise role of governments in designing energy policy was not unanimous by any means; there was disagreement among roundtable participants over the appropriate ways governments should use regulation, incentives, and public expenditure to address climate change. However, participants did seem to agree that, when it comes to goal setting, governments are instrumental. Governments are essential to defining what it is we are trying to protect and the standards by which we must protect it. As one participant noted, there is a market failure problem that only governments can resolve. Put another way, governments alone can regulate what goes into the atmosphere and they alone have ways of ensuring standards are met – the market will not do this. As one participant noted, “as long as the sky is free, we will never solve the problem of climate change.” Only governments can put a price on emissions. Industry cannot alone articulate a vision for the future and sketch in a path to get us there; “governments must determine the rules of engagement”

Now admittedly, it is hardly earth shattering to say that governments have a key role to play in setting policy frameworks. This, after all, is the core business of governments. However, the fact that the roundtable participants kept coming back to this truism reflects an underlying frustration that Canadian governments are *not* meeting their core responsibility, that they are not articulating policy frameworks for climate change or energy.

These are challenging tasks, as what makes good policy and what makes good politics are not always one and the same. Some acknowledged that addressing climate change could mean major adjustments for traditional forms of energy production and consumption, but that if we are serious about addressing climate change then we have to start planning *now*. According to one participant, “governments are not looking long-term enough in their planning.” Industry may be relatively well equipped to do long-term planning (though they suffer from short-term pressures), and can partner with governments in doing so, provided industry is appropriately consulted.

On the subject of balancing the roles of government and industry in reaching our energy goals, it was agreed that there are important roles for both. Some participants felt that government should be responsible for goal setting, but that markets could play a key role in determining the best way to reach these goals. For example, some felt governments should provide incentives for conservation or GHG reduction (though some incentives could be market-driven as well), but that governments should not be in the business of picking winners and losers as far as investment in research and development in new technologies is concerned. Certainly some degree of public investment in technology is needed (though industry will also have to pitch in), but many wanted to see governments spread these expenditures across the energy spectrum to encourage the greatest amount of innovation.

While it is easy to say that governments need to set goals and create the operational parameters in which industry must innovate, participants felt that neither would achieve success without some degree of public support to underscore these efforts. The degree of regulatory certainty demanded by industry is not possible without public support; one participant called this the “missing link” and described the equation this way:

$$\text{lack of policy framework} + \text{absence of public support for climate change initiatives} = \text{regulatory uncertainty}$$

While a change in public attitudes is needed to enable governments to make firm decisions and stick with them, governments can influence the public mood. In the words of one participant, governments need to make the hard decisions and help educate the public to come around to them – “if you build it, they will come.”

In acknowledging the importance of government leadership, participants saw a major federal policy role as essential and inevitable as Canadians develop energy policies for a carbon-constrained world; when asked if the federal government had a role to play, the general

response was “of course.” However, this does not mean that participants were willing to concede policy *leadership* to the Government of Canada. To the contrary, participants felt that policy leadership to date had come more from provincial and local governments, and from governments outside Canada, and there was little expectation that the Government of Canada any time soon would race to the front of the policy pack. There was even a concern that federal inaction might constrain more effective and rapid policy responses by provincial governments. Participants also stressed that *national* policy objectives could not be met by the federal government alone; it will require a multi-jurisdictional effort.

v. The costs of addressing climate change must be shared

Just who should be responsible for reducing emissions and conserving energy was a matter of some debate. Conventional wisdom suggests that efforts to compel energy conservation and the switch to cleaner energy solutions should be based upon a user-pay principle. However, current climate change policies in Canada – with the notable exception of BC’s – do not reflect this standard. Both the federal government’s *Turning the Corner* GHG framework, and numerous provincial strategies—including Alberta’s fines for heavy emitters and Quebec’s carbon tax (paid not by consumers but by industry)—do not *overtly* add to the price burden for end-users, though it is likely that any increase in production costs will be passed along to consumers.

According to a number of roundtable participants, all energy users must fairly share the burden of costs associated with reducing GHG emissions. If we want to promote energy conservation, then price signals are the way to go; it was widely agreed that price changes behaviour. A number of energy sector representatives expressed concern over existing policies that place the cost burden squarely on the shoulders of industry and noted that the market responds to demand; the amount of energy produced is directly related to the demand for it. If demand goes down, production will go down; industry responds to consumer signals. If consumers respond to price signals, then the math is simple:

increased price → *decreased demand* → *decreased production*

Yet while there was some agreement about the supply and demand relationship, there was no consensus around what would be the best form of carbon pricing (i.e., a carbon tax or cap and trade system). There was consensus, however, that no one should be let off the hook, including both motorists filling up at the pump and industrial producers. Some participants felt that, if we are going to expect all energy users to absorb the added costs of GHG reduction, then one way this can be achieved is through significant public investment in the research and development of new technologies. Industry should not be expected to confront this challenge alone.

Returning to the emphasis on the supply and demand relationship, it became evident at all four roundtables that the two are difficult to separate. While it is true that consumer demand drives production and supply, the availability of cheap energy influences demand. Roundtable participants felt that the two ends of the energy spectrum are inextricably linked and that if we hope to reduce our consumption and emissions while maintaining a high standard of living and our international competitiveness, it is going to require a concerted effort on the part of all players along the energy food chain. This will require a balance between supply and demand side reduction strategies.

vi. Some degree of policy integration is needed

When it comes to addressing climate change, Canadian governments are engaged at all levels. From big cities to the Government of Canada, many jurisdictions are setting emission reduction targets, investing in greener technologies and encouraging energy conservation. Yet, a recent Canada West Foundation report, which presented an inventory of these multi-jurisdictional approaches,¹ noted that there is very little policy coordination among federal, provincial, territorial and municipal governments. This absence of integration was a resounding theme and concern at each of the four roundtables. Participants felt that leadership at all levels of government is important, but the lack of over-arching collaboration on a national scale was worrisome. The current “patchwork quilt” effect of multi-jurisdictional strategies to combat climate change has created uncertainty for businesses operating in this environment.

1. See *Building On Our Strengths: An Inventory of Current Provincial, Territorial and Federal Climate Change Policies*, Canada West Foundation, February 2008. Available for download at: www.cwf.ca

For example, a company operating in multiple provinces may face different emissions quotas depending upon where its operations are located, as well as different fines and penalties for non-compliance.

Furthermore, this absence of policy coordination across jurisdictions could potentially pit provinces against one another. It was noted at one of the roundtables that companies are opportunistic: where feasible, they will move to the optimal regulatory environment, and because provinces have different regulations, this could create the risk of unhealthy interprovincial competition. In this same vein, concern was expressed over the potential for energy policy to lead to the build-up of interprovincial trade barriers, which could create multiple energy solitudes in Canada.

This absence of greater policy coordination, in concert with the uncertainty that accompanies the open-ended nature of climate change strategies to date, is problematic for industry. With so many balls in the air – from promises of investment in new technologies and renewables to uncertainty over future costs associated with traditional energy consumption in the medium-to long-term—it is difficult for companies to go to their boards of directors and argue the need for long-term investment in research and development. Concern was expressed that, without an end point in sight, without a vision of what is to be achieved (complete with strategies and timelines for moving forward), and without some form of integration of federal and provincial strategies, a heavy burden is placed upon the energy sector, which could have a wider economic ripple effect. We heard from energy sector participants that they want to do their part, but that they need regulatory and fiscal certainty if they are going to be successful. According to one roundtable participant, “the energy sector is a business and therefore projects need to be economically viable – people tend to forget this. Markets don’t support ambiguity.”

In addition to the view that greater policy integration between the federal government and the provinces is needed, it was also asserted that the role of cities is often overlooked. Large urban centres have the potential to – and many already do – make important contributions to overall emission reduction. For example, changes in urban form and transportation have tremendous potential, though they are issues that the provinces have control over. Additionally, although cities are normally considered energy consumers, we were reminded by a number of municipal officials that cities are, and have the potential to be, energy producers as well (for example, energy can be generated from landfills, wastewater and/or sewage treatment processes). However, with limited resources, local governments tend to be risk averse, so financial incentives to innovate may be needed to help local governments change their risk evaluation.

The participants’ concern regarding policy coordination extended beyond our national borders. Canadian energy resources will be developed, marketed and consumed within a continental and increasingly global environment. Therefore the development of a Canadian Energy Strategies must be attuned to international realities. These include international commitments, the American policy environment, and international factors shaping both supply and demand. In this sense, the US is not just a huge market, but also a regulatory trendsetter with a potentially large impact upon Canada. The 2008 US presidential election campaign shows that energy security will be a priority for the US, and this suggests that the synchronization of US and Canadian energy policies should be emphasized. Many participants felt that Canada needs to address, or be prepared for, changing US priorities in the areas of energy security, cleaner sources of supply and a path toward greater energy self-sufficiency. Others felt that it might be important for Canada to reconsider the energy provisions contained within the NAFTA.

Working within a North American context, and working to reach global targets of energy consumption and emissions reduction, will require Canada’s efforts to be coordinated. Provinces, territories and big cities operating completely independently could pose a challenge to reaching national goals. Given concern over the absence of policy coordination across the country, many participants were willing to entertain a federal role, without abandoning provincial leadership; however, what federal leadership would look like was not obvious. Where there was agreement was that a clearer delineation of roles and responsibilities for all levels of government is needed – both across governments and within them. At the same time, some pessimism was expressed regarding the capacity of existing intergovernmental – and interdepartmental – mechanisms to meet this coordination challenge.

vii. Markets have an important role to play

Governments have a role to play in emissions reduction, but so do markets. One path to addressing the effects of climate change might be to let markets alone take us there. Eventually, if the price of oil soars to \$200 per barrel or beyond, this will have an

impact upon behaviour. But there was a feeling that we cannot afford to wait; some form of regulation is needed to accelerate the process of reducing consumption and lowering emissions. While there was disagreement amongst roundtable members over just what combination of regulatory and market tools would be required, many agreed that a balance between the two makes sense.

Some participants felt that perhaps where markets can play the most useful role is in stirring innovation and setting the price of carbon. It is fair to say that there was not a consensus on this issue and this sparked some discussion about carbon taxes and cap and trade systems. Some favoured the use of regulatory tools to alter behaviour and others sought a more market-oriented process for offsetting emissions; some favoured a combination of the two. Many felt that the global market for offsets trading as well as the market for renewable clean power present tremendous economic opportunities. A number of participants noted that Canada could be much more competitive in these areas and suggested that we could generally do a better job of reading market signals. Ultimately, participants did not get around to addressing more specifically what the government's role in the market should be.

viii. Don't put all our eggs in one basket

The diversity of climate change and energy strategies across Canada illustrates well the plurality of options available to governments and industry to reduce carbon emissions and promote energy conservation. From investment in renewables to penalties for heavy emitters, levies on carbon consumption, and the sequestration of CO₂, there are many approaches to reducing emissions. Roundtable participants expressed the view that it will be critical moving forward to consider all available options and to realize that if we are going to be successful in reaching our energy goals we must embrace a diverse basket of solutions (albeit with greater coordination among the various approaches and across governments).

Participants did not gravitate to a single solution with respect to reducing the carbon footprint of energy production or transforming patterns of energy consumption. All alternatives seemed to be in play, and all were seen as part of a comprehensive policy response. In short, nuclear energy, wind power, solar power, carbon capture and in-stream hydro, to give but a few examples, were not seen as alternatives among which we should or must choose. Instead, they were all seen as part of a comprehensive policy response designed to broaden the energy supply spectrum as much as possible.

In light of this preference for diversified approaches to energy production, concern was expressed at all four provincial roundtables about the perceived dogged pursuit of carbon capture and storage (CCS) to the exclusion of other solutions. Some expressed a worry that, while CCS is an important strategy for reducing carbon emissions, it is not the "only show in town," that it must be seen as part of a more comprehensive strategy rather than as the silver bullet. There was concern that both the Governments of Alberta and Canada have placed a disproportionate emphasis on this technology and that this preoccupation with CCS could divert attention away from other notable technological developments in the renewables sector, for example. There was some fear that CCS does not go any distance toward changing rates of energy consumption or sources of supply, which are going to be necessary going forward.

In any event, the need for public investment in numerous strategies to reduce emissions was expressed, as well as the need to continue to innovate and not to "rest on our laurels." Participants stressed that technological innovation would not be driven by markets alone, and that it would take some time to achieve our GHG emission reduction goals. The belief in the power of technological innovation was linked to the need to think in the long-term.

Returning to an earlier theme, an added rationale for better multi-jurisdictional policy collaboration is that because the need to act – and to act effectively – is so apparent, any action taken will be more effective if it is coordinated. Participants felt that if we are going to make any progress on our overall GHG reductions, then we can't afford to wait for solutions to find us or to cross our fingers and hope that the various strategies of governments and industry will magically coalesce to get the job done. Worth taking to heart is the reality that the world will not wait for us: there is tremendous potential for missed opportunities on the technology front, and also on the leadership front, if we do not act. What we do now could have an impact upon what China and India do, and if we get out in front of technological innovation, there may be great economic gains to be made from global leadership.

ix. Policy solutions must be reasonable

If Canadians hope to contribute to technological and policy leadership across the spectrum of energy futures, then we will have to acknowledge certain realities, the most critical of which is that our immediate future will continue to be dominated by conventional energy production. Even though we may move toward renewable energy, these sources will not be sufficient to meet demand in the short- to medium-term. Therefore, while public and private investment in these alternative energy sources should be an important component of any strategy moving forward, so too should be an acknowledgement of our existing sources of supply, as well as technologies that can help reduce the carbon output of our current energy mix. Put simply, we must play to our strengths.

A further consideration in the search for practical solutions must be a recognition of industry timelines and their need for clear policy signals. The rapidity with which climate change concerns have climbed the policy agenda has led to concern within the business community that the rules of the game have become too fluid. There is a need for stability and predictability in the policy environment; the task will be to create the public policy environment that will enable long-term energy investment. While there is a desire for fast action on climate change, we must remember that short time frames are difficult for industry; they need time for technological development, for planning and for financing the kind of infrastructure needed to reduce their carbon output.

Additionally, we heard from some of our roundtable participants a concern over tough enforcement penalties for heavy emitters. Specifically, grave concern was expressed over the prospect of criminal penalties for non-compliance with GHG reduction frameworks (CEPA, the federal compliance regime, does provide some flexibility for industry in meeting its obligations). For example, one Alberta roundtable participant noted that, "if company directors are told 'go to jail or shut down production,' they will shut down production. And where does this leave us? This will not be popular with Canadians." For industry, targets must be reasonable and yield practical solutions. If we want to foster an environment in which smart energy solutions can be attained that will sustain our economy and our environment in the long-term, then we must avoid triggering knee-jerk and unsustainable solutions.

x. Policy solutions must be fair and equitable

Many roundtable participants expressed concern over the potential use of economic policy instruments for promoting emission reductions as a means for transferring wealth from one province or region to another. Whether it is a discussion about carbon taxes or a cap and trade system, there was resistance to any approach in which revenue is generated in one region and then transferred and spent in another.

In *Energizing the Climate Change Debate: A Principled Framework for Canadian Energy Policies Within a Carbon-Constrained World*, we asserted that energy policy in Canada must focus on energy issues. Energy policies designed to align with climate change policy objectives must focus on the production and consumption of energy, including conservation policies designed to reduce demand and improve efficiency. These policies must not be expanded to the regional redistribution of wealth. Energy policies will only be effective if they are attentive to the delicate balance of regional interests and aspirations. In a similar vein, concern was expressed by some roundtable participants that any policy tool considered must take care not to penalize one region over another; for example, concern was expressed at the Alberta roundtable about the potential of a national carbon tax having a greater economic impact in Alberta than in other parts of the country.

While concerns were raised that were unique to each of the four provinces (see Appendix A), a regional picture did begin to emerge from the provincial roundtables.

4. Policy Prescriptions

Building upon the advice we heard at the roundtables, this section presents a set of policy prescriptions aimed at creating an effective Canadian Energy Strategy.

The roundtable discussions were not shaped by a deep sense of pessimism with respect to either the impact of climate change or our capacity for an effective policy response. *Guarded optimism* might best sum up the mood of participants. In this context, participants

frequently mentioned the need to address climate change in a meaningful way and to recognize the commercial opportunities that climate change opens up for technological innovation in Canada's energy sector, innovation that could in turn have a global impact. A well-designed energy strategy could enhance rather than impair Canada's international competitiveness. Indeed, the underlying sense of optimism found clearest expression in the faith placed in technological innovation as a way to reduce GHG emissions, if we commit the necessary resources.

Here again the lines between climate change and energy policy blur. The roundtable participants articulated a set of energy goals, which, while they were embraced as a response to climate change, may actually be somewhat apart from it. If we hope to move forward with building a Canadian Energy Strategy, *it may make sense to consider our energy goals as separate*, though still connected to, our action on climate change. Action has and is being taken on climate change by the provinces and also at the federal level: both the Government of Canada's *Turning the Corner*, and the Liberal Party of Canada's *Green Shift* present climate change policies. The finer points aside, they suffer from the same omission: neither sets explicit *energy* goals. *Turning the Corner* sets GHG emissions reduction goals and the *Green Shift* advocates taxing carbon to encourage conservation and emissions reduction. We believe it may be time to take a step back from the climate change discussion and ask the broader question: *what are Canada's energy goals?* Only when these are articulated can we then determine the strategies needed to reach them and how we define success in attaining these goals.

According to Prime Minister Harper, Canada's goal is to become a *clean energy superpower*. We did not hear specific opposition to this at any of the four roundtables, though the meaning of this phrase was not obvious to participants. *If this is Canada's goal* (and thus far it is the only energy goal that has been articulated by the federal government), then we must address what this means, where it will take us, and what we will have to do to get there. If we use the clean energy superpower objective as an example of an energy goal, the logical first step is to clarify our terminology. How do we define *clean energy superpower*? The choice of the word *superpower* is instructive: presumably this means more than simply being a clean energy *producer*. The phrase implies global leadership, the ability to be independent, and to use our energy capital to chart our own course and to promote Canadian interests and values. To borrow from more traditional definitions of *superpower*, this provides for Canada's *energy security* and could even imply a desire to lead by example – to make others want what we want.

If we aspire to be a clean energy superpower then we need to go beyond simply setting GHG reduction targets and encouraging wind production. If the goal is to transform Canada over the long-term, then we need a Canadian Energy Strategy that includes, for example, the percentage of our overall energy mix that can and should be provided by renewables, clear timelines for achieving the plan's objectives, new mechanisms for increasing intergovernmental coordination, and details regarding the costs of new energy infrastructure and how it will be financed. The strategy must be developed with input from all parts of the country. Canada cannot become a clean energy superpower at the will of the federal government alone, but neither can it achieve this goal in the absence of explicit federal leadership.

Thus, we suggest a number of broad planks for a Canadian Energy Strategy. To begin, and this may sound clichéd, it is unlikely that progress will be made on achieving our energy goals unless we work in concert – the federal government and the provinces – to acknowledge this vision of where we want to be, and then figure out what is needed to get there. Unfortunately, we have opted to set targets based upon what we are prepared to do *now*, rather than upon where we want to end up. This is a somewhat unconventional approach to planning and it is passive. It only asks what small incremental changes we are prepared to make now, and then tailors our 50-year goals around this incremental change. More problematically, *most of the targets are related only to the GHG aspects of energy production*.

This approach is too easy and will not prompt the kind of reductions and behavioural changes we need to make. Additionally, if we focus our attention on what we are prepared to do now, then it is easy to get bogged down in the minutia and miss the big picture. We believe this has impeded progress toward a Canadian *Energy Strategy*. We have focused our efforts on combating climate change and setting emissions reduction goals – important efforts to be sure – but we have lost sight of why these are important and what we expect to gain as a nation from re-thinking how we *use* energy. The environmental impact of how we power our homes and cars matters, but so does *how we use our energy capital* in the global context. The need to address climate change can fuel the strategies we pursue to transform Canada into an energy superpower, but the end goal itself – to be a key global energy player – will require more than setting emissions ceilings and taxing carbon.

We do not, however, wish to discount the efforts to address climate change to date. Reducing carbon and conserving energy make sense, and there are many avenues available to governments to encourage behavioural change in these areas. We heard from western

Canadians that putting a price on carbon – either through establishing a cap and trade system or implementing a carbon tax – makes sense because price changes behaviour. Additionally, and consistent with this user-pay principle, if we are to make a serious contribution to reducing greenhouse gases, then some degree of public investment in new technologies, including CCS and alternative and renewable fuels, will be needed. Industry will innovate and the market will reward new ideas, but government signals will still be needed. If we want to harness our clean energy potential and be able to use our energy capital to bring about needed change – at home and abroad – then we are going to have to get serious about deciding what we want, how much of it we want, and by when.

A Canadian energy strategy is much more than what the federal government is or is not doing. It is energy policy that is integrated in some way, to ensure that provinces are not working at cross purposes, and that there is some compatibility between what the provinces, big cities, and industry are doing and the goals set by the Government of Canada.

The provinces have ownership over their natural resources and can levy taxes or royalties on those resources. The Government of Canada also has broad taxation powers that can apply to firms extracting these resources. This means an overlapping of responsibilities. This is not an inherently negative arrangement. The federal government has an important role to play, whether it is through significant investment in research and development, through setting price signals (as the BC government has done), or through ensuring that all Canadians – industry and individuals – carry their share of the load when it comes to reductions in energy demand and consumption. If Canada is going to be a global energy player, *and if we want to make sure we don't hamstring Canadian competitiveness in the global marketplace* (a concern of many roundtable participants), then we need to speak with one voice and work together when it comes to energy investment within Canada and seizing opportunities for international leadership. This does not preclude a strong role for provinces and municipalities. In fact, the American experience, in which state governments are increasingly assuming responsibility for energy and climate change policy, may have something to offer; the American experience shows that state policy leadership feeds rather than reduces the call for federal policy engagement. Western Canadians – and Canadians as a whole – need policy coordination between their provincial governments and Ottawa, and they need leadership on energy policy that is equitable, efficient and effective.

So, where does this leave us with respect to western Canadian advice for a Canadian Energy Strategy? We would suggest that there are two bookends to that advice. The first is that there indeed should be a *Canadian* strategy, one that sees the federal government and all 13 provincial and territorial governments working together. In short, our roundtable participants would not be satisfied with a Canadian Energy Strategy that was no more than a list of provincial and territorial initiatives.

The second and complementary bookend is that a Canadian Energy Strategy must take into account provincial and regional differences in energy circumstances. Furthermore, and of particular importance, *the strategy should not redistribute wealth from one part of the country to another*. An energy strategy should be an energy strategy, not a redistributive policy. Some regions will feel the impact more than others – certainly the transition to clean energy superpower status (if indeed this is where we decide to go) will generate winners and losers – but attempts must be made to view Canada's energy opportunities as national opportunities, keeping regional concerns top of mind. Admittedly this is a delicate balance to strike.

What, then, are the policy prescriptions that lie between these two bookends? A Canadian Energy Strategy should:

- coordinate federal, provincial, territorial and municipal energy policy initiatives; these inter-jurisdictional consultations about our national energy goals must occur quickly, decisions must be made, and be put to Canadians, in a reasonable timeframe;
- establish hard energy production targets across a range of energy sources (e.g., wind, solar, nuclear, oil, natural gas, coal, hydro) for both domestic consumption and export that go beyond dealing with GHG emissions and develop policy scenarios for meeting these goals;
- be compatible with and inform a national climate change strategy;
- be broad in scope, moving beyond regulation and beyond singular initiatives such as carbon capture and storage;
- take into account both international realities and the need for continental policy coherence;
- recognize the potential social and economic costs associated with transforming our energy needs/demands;

- stress energy conservation, with market-based incentives to encourage both conservation and the more general behavioural changes necessary to animate an effective climate change strategy;
- send appropriate price signals to incent change (e.g., putting a price on carbon through a cap and trade system or a carbon tax);
- recognize the need for public investment in research and technology; and
- be built for the long haul, recognizing that many aspects of an effective energy strategy may take years, decades and even generations to accomplish; strategies must be designed to help us make the transition from where we are today to where we want to be.

We came away from the four provincial roundtables with the conviction that western Canadians will support the construction of a Canadian Energy Strategy. However, not just any strategy will be supported; we must *get it right*. Major deviations from the principles sketched in above, while over-emphasizing others, would run the risk of getting it *wrong*.

5. Conclusion

The task of this report was to extract the rudiments of a Canadian Energy Strategy from the roundtable discussions. We have made every effort to outline a series of policy prescriptions that should guide energy policy development in Canada in a way that reflects the advice we received in these consultations. While each province has its own set of energy-related issues and concerns, a regional picture did begin to emerge and thus we have identified a set of broad strategic directions that lay beneath the four roundtable discussions. We hope this provides a useful foundation for moving toward a Canadian Energy Strategy that will enable us to achieve our overall energy goals through balancing the demands of climate change with economic growth. If common ground can be found in a region as diverse as western Canada, then this bodes well for a national discussion on energy policy. If we truly hope to “get it right,” we will need a truly Canadian policy response that will stand us in good stead in a complex and fluid international environment. We hope this report provides a step in that direction. □

Appendix A: Provincial Contexts

The roundtable discussions in the four provinces reflected, and were enriched by, the local contexts of the host provinces. But, in a more general sense, the discussions raised the need for transformative change in Canada, one that would hopefully be guided by an overarching set of principles and national objectives. We were reminded that a *clean energy future* will not be achieved by incremental and disjointed policy change; it will only emerge through acts of political leadership. However, government leadership alone will not suffice; as one participant noted, “if we wait for governments to act, it’s not going to happen.” Western Canadians enjoy a vast energy bounty; the challenge is to tap that bounty within a sustainable framework. This will be a hard slog, built slowly, policy brick by policy brick. The fact that there were so many common themes that emerged from the roundtables bodes well for designing energy policies that will work for western Canada as a region.

Neither Canada, nor the West within Canada, present a uniform package of energy resources, energy mixes, or policy challenges. Therefore, while participants stressed the need for greater policy coordination and even integration, they also felt this must be achieved while recognizing that significant provincial differences exist. There was no consensus that the climate change crisis is so urgent or severe that provincial differences should be set aside in the pursuit of a greater national or global good. We need policy coordination, but not to the extent of a one-size-fits-all strategy. That being said, some did feel that greater efforts could be made at the provincial level to address climate change. A general summary of each of the four provincial discussions is provided below.

British Columbia

The BC government has arguably the most aggressive climate change and energy policies in Canada; its portfolio includes regulatory tools, fiscal measures, market mechanisms, technological support and efforts to prompt behavioural change, all in the interests of reducing energy consumption and carbon emissions. Many participants felt that BC was a pioneer on this policy file and could play an important leadership role within Canada when it comes to policy development.

Many roundtable participants expressed concern with their province’s progress and one person cautioned, “we’re still in the very early stages of policy development and our enthusiasm is out ahead of our response.” Some felt that there were a number of challenges ahead, most notably the issues of policy harmonization with other provinces and with federal policies, and the development of energy transmission infrastructure.

Concern was expressed over the absence of policies that promote integrated electricity systems across Canada and North America. There was a general feeling that it is easier to work cooperatively with other

countries and US states than it is with other Canadian jurisdictions. On this same theme of the need for policy integration, roundtable members agreed that more work needs to be done with municipalities as well, recognizing the significant contribution that BC’s communities already make, and have the potential to make, to provincial emissions reduction and conservation strategies.

Returning to the issue of transmission, there is great potential for renewable energy in the province, but the infrastructure needed to maximize this advantage is not in place. If BC is to maintain a competitive advantage, this infrastructure deficit must be addressed.

A particular advantage BC seems to enjoy is public education and awareness, which translates into support for its suite of climate change policies. A number of roundtable participants felt that the province has been effective at aligning policy with public expectations. However, some wondered how public support on the climate change file would hold up in weaker economic times. What would happen to the public mood in times of ever-higher gas prices? Some acknowledged that popular opinion is an important motivator and driver, but a degree of caution is needed when it comes to the sustainability of public support.

Alberta

From other provincial roundtables, we heard a chorus of “how do you solve a problem like Alberta?” Interestingly, we heard a similar sentiment from the Alberta roundtable itself. Is Alberta’s bounty a blessing or a curse? Alberta accounts for over 25% of Canada’s overall GHG emissions. In the minds of roundtable participants, addressing these realities will require ingenuity, sacrifice, and significant public and private sector commitments.

A key provincial strategy to address emissions reduction in Alberta is carbon capture and storage. And while many roundtable members felt that this is an appropriate way to balance the need for energy production with concerns over carbon emissions (and it also presents a tremendous economic opportunity), there were a number of concerns raised about CCS. As mentioned above, some industry representatives expressed reluctance about placing all the eggs in the CCS basket, as it is hard to sell major investments in CCS technology to shareholders when the future price of carbon is uncertain. The Government of Canada’s *Turning the Corner* plan promises a carbon trading regime, and identifies certain options available to companies wanting to offset their carbon emissions in order to comply with emissions ceilings. However, this approach does not guarantee or stabilize the price of carbon, and this price instability makes it difficult for businesses to do long-term planning. Will firms be able to buy offsets more cheaply than they can afford CCS? As one participant reminded, “markets like stability and taxes provide certainty.” This led a number of participants to favour a carbon tax, as this could be used to fix the price of carbon

over the medium-to long-term and would enable better economic forecasting and technological development.

The group was also reminded by oil sands operators that oil sands projects are by nature long-term in scope and therefore they need governments – federal and provincial – to help nail down this price uncertainty if they are going to continue their operations. Additionally, single CCS systems often do not possess the infrastructure needed to move their carbon to storage sites, therefore a network – a pool of capital – is needed to invest in moving CCS projects forward. Capturing, moving and sequestering carbon are each costly and are costs that can and should be shared; this should not be the sole responsibility of industry. One participant argued that CCS infrastructure needs to be looked at and planned for in the same way as national infrastructure has historically been addressed (for example, the building of the first national railway). Some roundtable members agreed that an innovative approach to funding CCS infrastructure might be to design a technology fund directed toward project coordination. One person even suggested “IPOing” the tech fund and making it publicly accountable. (It should be noted that the federal government announced in March 2008 that it would issue a request for proposals, under its technology fund, to encourage projects designed to maximize emissions reductions, including from CCS.)

On the theme of market uncertainty, industry would like to see more certainty surrounding its regulatory obligations as well. The absence of an integrated energy framework makes it tough for operators in multiple jurisdictions to account for differences across provinces. They may meet targets provincially but not federally, and it is costly and challenging to be jumping through hoops at different levels.

Though CCS was the subject of much of the day's discussion, there was also concern expressed that our “emphasis on carbon could be obstructing our view of other opportunities that may exist.” We do not yet have a clear sense of what our renewable options are. One participant noted, we first need to know what we can do – in other words how much conservation we could achieve (with renewables), and then we should maximize the most sustainable long-term sources of electricity for the province. This may well turn out to be a blend of traditional and renewable energy sources; the specifics of the energy mix will be determined on the basis of the continued ability to meet society's needs.

Finally, an issue that came up repeatedly at the Alberta roundtable was the need for energy policies to force producers and consumers to share the load. Many felt that it would be inappropriate to have an energy policy that targets only industry; “if we don't change the consumption behaviour of consumers then we'll never get anywhere.” Some identified a spending gap: our public spending reflects our priorities and if we don't make appropriate public sector investments to help reduce emissions and conserve energy, then

how can we ask industry to do this, and perhaps more importantly, how can we expect the public to take the issue seriously?

Saskatchewan

Two key themes arising from the Saskatchewan discussion were the close relationship between energy production and consumption (the province is a major energy exporter – the second largest producer of crude in Canada and the third largest producer of natural gas) and the link between growth and energy demand. Saskatchewan's energy production, and therefore its per capita GHG emissions are high; however, much of its energy is exported (thus, personal consumption is a very small contributor to Saskatchewan's emissions). As well, the province, and the region more widely, are experiencing record growth, which means that energy consumption is necessarily rising and will continue to do so. Some participants warned that vigorous attempts to reduce GHGs must be done without disrupting economic growth.

On this subject of growth, one roundtable member noted that Canada's emissions levels are too often compared with western Europe's, yet this is an unfair comparison because of this link between consumption and growth. It was noted that Europe has an easier time reducing GHGs in part because many of its countries are not experiencing major population growth. But, “when you're growing like Saskatchewan is – like China and India are – it is hard to reduce demand.” In fact, demand is likely to grow and policies must reflect this. For this reason, one participant asserted that Saskatchewan is a great microcosm of the rest of the world and can be considered a policy laboratory of sorts; “if it can work here, it can work anywhere.”

Because Saskatchewan's economy relies upon the growth of its energy sector, there is a sense of futility surrounding demand reduction when other parts of the world, and even other provinces, are perceived as not working to decrease their share of GHG contributions. Some felt that to make Saskatchewan companies pay big dollars to do this would be unfair. Energy and climate change policies need to be equitable and need to enable businesses to be competitive.

In addition to the impact that growth has on energy demand, the roundtable also discussed the potential for Saskatchewan to seize upon its emerging renewables sector and take advantage of where it may be possible to add value from new technologies in the fields of bio-processing, bio-refinery and even chemical production. Saskatchewan possesses an excellent research community for exploring leading opportunities on the production side as well as for the consumer. One participant noted, “we are only at the tip of the renewable fuels sector – there is much more room for investment and research to come.” There are two biofuels plants in Saskatchewan,

and its municipalities are undertaking smart transit policies, not only because they are good for the environment, but also because they are smart economically. (The City of Saskatoon, for example, is exploring ways it can *produce* energy by generating energy from heat in landfills.)

Finally, the Saskatchewan roundtable echoed the need for better inter-regional energy transmission and the need to secure more reliable connections to an across-the-board electrical system. Governments are generally responsible for infrastructure, so they have a lot of influence on moving or transmitting energy, and some participants called for a heightening of government awareness of its important role in improving energy transmission. Ultimately, some felt we should seek to avoid having an energy industry that is broken up by region; it should be fluid across the country.

Manitoba

The Manitoba roundtable focused heavily on the demand side of energy consumption. Great emphasis was placed upon what local groups and communities can do to reduce their GHG emissions and conserve energy, yet the absence of incentives for small organizations to take greener decisions was underscored. Some participants felt that community empowerment is needed in moving energy policy forward in Manitoba.

Additionally, one roundtable member noted that gasoline and electricity rates of consumption are extremely high in Manitoba and that this could be holding the province back as far as its emissions go. One representative ventured that it is these high rates of gas consumption and comparatively low pricing rates that are keeping Manitoba from becoming a have-province. That being said, one person noted that Manitobans are stepping up: over \$150 million in loans have been utilized for energy retrofits. The province also has a major focus on biofuels, energy efficiency, hybrid vehicle use, and green building standards. And this arguably speaks to a culture of conservation that some participants felt is lacking in Canada as a whole. We were reminded by some participants that there is a cultural side to energy usage – we view energy use as a “right,” but this kind of thinking needs to change. We cannot expect China and India to change their consumption patterns if we don’t. Energy poverty also factors in here – there are certain income sectors – those with lower incomes and seniors – who will be hit hard by rising energy costs. We need to address this and keep the social costs of environmental sustainability in view.

When it comes to energy in the province, Manitoba Hydro is the major player, and some participants expressed concern over the message sent by the utility when it comes to incenting energy conservation. As they see it, Manitoba Hydro earns money from energy exports, which is then funneled back into the system, resulting in a lower rate paid by Manitobans. This system works for the pocketbook, but is

questionable from a conservation perspective; energy use is rewarded, not penalized. The more energy that is used, the more goes back into the pocket, so it rewards over use. And in the words of one participant, “peoples’ pocketbooks are their first concern, the environment second. So you have to speak to people in dollars and cents.” With respect to hydro power in Manitoba, the absence of an east-west energy grid was viewed as limiting the distribution of the province’s abundant hydro power to other jurisdictions. This was seen as an impediment to economic growth in the province, as well as a missed opportunity for GHG reductions.

In discussing how best to mobilize action on climate change, a question arose about the language surrounding our efforts. One participant asserted that, in order to convey the severity of the climate change imperative, perhaps using the phrase “war on global warming” is appropriate. One person noted that perhaps we need a “green measures act” to force a reluctant population to act. Certainly to launch a “war” mobilizes people; it has done so for terrorism. But an important counter point offered by one participant was that these “wars” are rarely effective: wars on drugs, poverty, and terror are arguably not being won, and may never be. One person asked, “and if we (Manitobans) had a war on global warming, who would be the enemy? Alberta? China?” What this kind of terminology does, however, is reflect the seriousness of purpose of those promoting significant and timely action to address climate change; to borrow from Martin Luther King Jr., it conveys the “fierce urgency of now.”

On this same theme, many participants felt that we do not talk about individual responsibility enough. Citizens can do a lot, but they first need to be told how climate change will affect them personally. For one roundtable member, the solution to addressing climate change is to “educate, communicate, legislate.” The Manitoba government has made strides in public awareness, but some felt it had much more work to do in reaching out to communities and individuals to do their part to reduce energy demand.

Appendix B: Provincial Roundtable Participants

British Columbia Roundtable

Doug Allen	<i>Sage Group Management Consultants</i>
Craig Aspinall	<i>Western GeoPower Corp</i>
Rosemary Boulton	<i>Kitimat LNG Terminal</i>
Barbara Docherty	<i>Sea Breeze Power Corp.</i>
Aldyen Donnelly	<i>Greenhouse Emission Management Consortium</i>
Ross Ezzeddin	<i>Natural Resources Canada</i>
Tony Fogarassy	<i>NaiKun Wind Development Inc.</i>
Dan Green	<i>BC Energy, Mines and Petroleum Resources</i>
Hugh Kellas	<i>Metro Vancouver</i>
Christine Koch	<i>BC Agriculture Council</i>
Roslyn Kunin	<i>Canada West Foundation</i>
Toby Lau	<i>PowerSmart</i>
Doug Little	<i>BC Transmission Corporation</i>
Michael Martin	<i>Environment Canada</i>
Randy McLeod	<i>BP Canada</i>
Michael Mulcahy	<i>Fortis</i>
Ron Percival	<i>Earth First Energy Inc.</i>
John Robinson	<i>Premier's Climate Change Panel, UBC</i>
Doug Stout	<i>Terasen Gas Inc.</i>
Tom Syer	<i>Plutonic Power Corporation Inc.</i>
John Walker	<i>FortisBC</i>
Gary Weilinger	<i>Spectra Energy</i>
Larry Weiers	<i>EnCana</i>
Graham Whitmarsh	<i>BC Climate Action Secretariat</i>

Alberta Roundtable

Amanda Affonso	<i>Canadian Energy Pipeline Association</i>
Allan Amey	<i>IFC Consulting</i>
Chris Bloomer	<i>Petrobank</i>
Rachel Boccock	<i>Alberta Urban Municipalities Association</i>
Patrick Defoe	<i>ConocoPhillips</i>
Deborah Emes	<i>Enmax</i>
Charles Fischer	<i>Nexen Inc.</i>
David Huggill	<i>Canadian Wind Energy Association</i>
Keith Leggat	<i>Alberta Environment</i>
David Lewin	<i>EPCOR</i>
Michael Martin	<i>Environment Canada</i>
Doug Marteinson	<i>Marteinson Learning Resources Ltd.</i>
Bruce McGee	<i>E-T Energy</i>
Bob Mitchell	<i>ConocoPhillips</i>
Jon Mitchell	<i>EnCana</i>
Charlotte Moran	<i>Alberta Energy</i>
Phyllis Odenbach-Sutton	<i>Natural Resources Canada</i>
Andy Ridge	<i>Alberta Environment</i>
John Rilett	<i>Climate Change Central</i>
Bill Roberts	<i>TD Securities</i>
Murray Smith	
Adam Sparkes	<i>Canadian Assoc. of Petroleum Producers</i>

Chris Severson-Baker	<i>Pembina Institute</i>
Lynn Sveinson	<i>Climate Change Central</i>
Mark Townley	<i>Suncor Energy Inc.</i>
Barry Worbets	<i>Statoil</i>

Saskatchewan Roundtable

Ann Coxworth	<i>Saskatchewan Environmental Society</i>
Al Evans	<i>Prairie Policy Centre</i>
Ross Ezzeddin	<i>Natural Resources Canada</i>
Zenneth Faye	<i>Milligan Bio-Tech Inc.</i>
Fred Hill	<i>SaskEnergy</i>
Chris Hopkins	<i>Oilsands Quest, Inc.</i>
Dara Hrytzak-Lieffers	<i>Saskatoon Regional Economic Development Authority</i>
Ken Kelln	<i>Kelln Solar Limited</i>
Greg Marchildon	<i>Saskatchewan Institute of Public Policy</i>
Michael Martin	<i>Environment Canada</i>
Grant McVicar	<i>Saskatchewan Research Council</i>
Laurent Mougeot	<i>Saskatchewan Urban Municipalities Association</i>
Fred Olfert	<i>Nipawin Ethanol Biomass Co-operative</i>
Liz Quarshie	<i>Saskatchewan Environment</i>
Blaine Renkas	<i>Saskatchewan Mining Association</i>
Bob Schutzman	<i>IPSCO</i>
Michael Shenher	<i>Canadian Green Fuels, Inc.</i>
Mark Stumborg	<i>Agriculture and Ag Food Canada</i>
Michael Weekes	<i>Saskatchewan Research Council</i>
Marianne Weston	
Floyd Wist	<i>Saskatchewan Energy and Resources</i>
Ian Yeates	<i>SaskPower</i>

Manitoba Roundtable

Dale Austin	<i>Natural Resources Canada</i>
Jim Carr	<i>Business Council of Manitoba</i>
Dennis Cunningham	<i>International Institute for Sustainable Development</i>
Ron Diduch	<i>Sequoia Energy</i>
Jino Distasio	<i>Institute of Urban Studies</i>
Arne Elias	<i>Centre for Sustainable Transportation</i>
John Fjeldsted	<i>Manitoba Environmental Industries Association</i>
Bill Hamlin	<i>Manitoba Hydro</i>
Cathy Johnson	<i>Manitoba Clean Environment Commission</i>
Lloyd Kuczek	<i>Manitoba Hydro</i>
Jennifer Lukovich	<i>Centre for Earth Observation Science</i>
Shaun Loney	<i>Manitoba Science, Technology, Energy and Mines</i>
Michael Martin	<i>Environment Canada</i>
Roland Moberg	<i>Tundra Oil and Gas</i>
Alec Stuart	<i>City of Winnipeg</i>
Shirley Thomson	<i>Natural Resources Institute</i>
Susan Thompson	<i>Canada West Foundation</i>

About the Canada West Foundation

Our Vision

A dynamic and prosperous West in a strong Canada.

Our Mission

A leading source of strategic insight, conducting and communicating non-partisan economic and public policy research of importance to the four western provinces and all Canadians.

Canada West Foundation is a registered Canadian charitable organization incorporated under federal charter (#11882 8698 RR 0001).

In 1970, the One Prairie Province Conference was held in Lethbridge, Alberta. Sponsored by the University of Lethbridge and the Lethbridge Herald, the conference received considerable attention from concerned citizens and community leaders. The consensus at the time was that research on the West (including BC and the Canadian North) should be expanded by a new organization. To fill this need, the Canada West Foundation was created under letters patent on December 31, 1970. Since that time, the Canada West Foundation has established itself as one of Canada's premier research institutes. Non-partisan, accessible research and active citizen engagement are hallmarks of the Foundation's past, present and future endeavours. These efforts are rooted in the belief that a strong West makes for a strong Canada.

More information can be found at www.cwf.ca.

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