

Learning To Address Climate Change:
Collaboration, Policy Transfer, and Choosing
Policy Instruments in Canadian Provinces

by

Brendan Dean Boyd

M.P.A., University of Manitoba/University of Winnipeg, 2007

M.A., University of Manitoba, 2003

B.A., University of Manitoba, 2001

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of

DOCTOR OF PHILOSOPHY

in the School of Public Administration

© Brendan Dean Boyd, 2015

University of Victoria

All rights reserved. This dissertation may not be reproduced in whole or in part, by photocopy or other means, with the permission of the author.

Learning To Address Climate Change:
Collaboration, Policy Transfer, and Choosing
Policy Instruments in Canadian Provinces

by

Brendan Dean Boyd

M.P.A., University of Manitoba/University of Winnipeg, 2007

M.A., University of Manitoba, 2003

B.A., University of Manitoba, 2001

Supervisory Committee

Dr. Evert Lindquist, Supervisor
(School of Public Administration)

Dr. David Good, Departmental Member
(School of Public Administration)

Dr. Colin Bennett, Outside Member
(Department of Political Science)

Supervisory Committee

Dr. Evert Lindquist, Supervisor
(School of Public Administration)

Dr. David Good, Departmental Member
(School of Public Administration)

Dr. Colin Bennett, Outside Member
(Department of Political Science)

ABSTRACT

As the Canadian federal government backed away from addressing climate change after 2006, provinces looked to cooperate with other subnational jurisdictions in North America to take action on the file and fill the void left at the federal level. Subnational collaboration led provinces to draw lessons and learn from each other and US states while pursuing several climate change policies that had emerged from California and the Western Climate Initiative (WCI) and were poised to spread across the continent.

Provinces' efforts to work together and adopt similar policy solutions deviated from their traditional pattern of protecting regional interests on climate change, which had come to a head in the early 2000s during the acrimonious debate over the Kyoto Accord. Initially, optimism abounded that subnational climate change policies would sweep across the country leading to widespread convergence on policy instruments and forcing the federal government to respond. However, only limited convergence emerged as most policies took root in some jurisdictions but not others, highlighting the prominent role that regional interests continued to play. This research study examines the climate change policy response of five provinces (BC, Manitoba, Ontario, Quebec and Alberta) and asks: What explains the selection and adoption of policy instruments in each province?

Several studies seek to understand the selection of provincial policy instruments by focusing on the role of local factors. However, given that policy development occurred in a period of significant collaboration among subnational governments in North America, this study makes a unique and essential contribution to the literature by considering the role of collaboration and cross-jurisdictional learning in addition to domestic variables. The project also informs debates at the academic and political level about whether provincial responses represent an inefficient patchwork of policies or a new form of decentralized governance characterized by regional collaboration. Finally, the study provides practical lessons for policy makers that emerge from the provincial experience, given that provinces have not been studied widely compared to the federal level in Canada.

The study finds that a feeling of subnational momentum and “strength in numbers” led the provinces participating in WCI to initially pursue policy instruments from abroad. Quebec and BC were able to put a price on carbon and adopt other policies because of strong domestic support and political leadership, while Ontario and Manitoba decided not to move forward with their commitments once it became clear that a national response would not emerge. Alberta did not participate in WCI and pursued its own approach to protect its oil and gas industry. Collaboration did lead to limited convergence in areas such as GHG reporting and vehicle emission standards, which provides a foundation for future cooperation. The study concludes that taking a long-term view of collaboration, which allows time for policy makers in different jurisdictions to build relationships of trust and industry groups to come on board, is necessary when addressing a complex and controversial issue like climate change through a multi-jurisdictional approach.

Table of Contents

| | |
|--|-----|
| Supervisory Committee | ii |
| Abstract | iii |
| Table of Contents | v |
| List of Table | vi |
| List of Figures | vi |
| Acknowledgements | vii |
| Chapter 1: Introduction | 1 |
| Chapter 2: Explaining the provincial climate change policy mix: Are local factors enough? | 13 |
| Chapter 3: Studying collaboration and policy transfer on climate change for subnational jurisdictions: An analytical framework..... | 39 |
| Chapter 4: Designing a comparative case study of provincial policy instrument mixes | 56 |
| Chapter 5: How Quebec became Canada’s climate change champion | 74 |
| Chapter 6: Climate change policy in Ontario: A de facto national leader in Canada? | 94 |
| Chapter 7: How British Columbia became ‘Hollywood north’ on climate change | 112 |
| Chapter 8: Manitoba: ‘Punching above its weight’ on climate change | 132 |
| Chapter 9: The ‘made in Alberta’ approach to climate change | 151 |
| Chapter 10: Explaining the selection of policy instruments in Canadian provinces | 170 |
| Chapter 11: Conclusion | 205 |
| References | 222 |
| Appendices | |
| Appendix A: Recruitment Script | 245 |
| Appendix B: Interview Guide | 247 |
| Appendix C: Participant Consent Form | 257 |

List of Tables

| | |
|--|-----|
| Table 1: Menu of policies adopted in each province | 3 |
| Table 2: Interviews by province and position | 68 |
| Table 3: Summary of provincial climate change policy instruments | 172 |

List of Figures

| | |
|--|-----|
| Figure 1: An analytical framework for explaining provincial climate change policy instrument selection | 10 |
| Figure 2: The process of collaboration and policy transfer | 47 |
| Figure 3: An analytical framework for explaining provincial climate change policy instrument selection | 54 |
| Figure 4: Detailed comparison of provincial policy development timelines | 183 |
| Figure 5: General timeline of provincial policy development | 184 |
| Figure 6: An adapted framework to categorize provincial climate change policy responses | 189 |
| Figure 7: An analytical framework for explaining provincial climate change policy instrument selection | 190 |

Acknowledgements

This research was made possible by a doctoral fellowship from the Social Sciences and Humanities Research Council. The author would also like to thank the supervisory committee for their assistance with the dissertation.

CHAPTER 1

INTRODUCTION

In the spring of 2007, California Governor Arnold Schwarzenegger conducted a whirlwind tour of Canada to promote his state's new climate change agenda and look for partners north of the border. Canadian premiers jumped at the chance to meet with the former movie star as Ontario's Dalton McGuinty and BC's Gordon Campbell took turns hosting Schwarzenegger, while Manitoba's Gary Doer had met with the Governor a few months earlier. With the Canadian federal government abandoning the Kyoto Accord and the country's international commitments, provinces were taking up the mantle of climate change leadership and the chance to appear with "the Governor" was too tantalizing to pass up as it brought a new level of attention and cache to their leadership and instant credibility to their efforts.

With limited leadership from the federal government, Canadian provinces looked to cooperate with other subnational jurisdictions in North America to take action on the file and fill the void left at the federal level. Subnational collaboration led provinces to draw lessons and learn from each other and US states while pursuing several climate change instruments: the tools, techniques and strategies they used to address a global problem and achieve their local goals (see Table 1, p.3). The menu of instruments included jurisdiction-wide GHG emission targets; participation in the Western Climate Initiative (WCI), a California-driven cap-and-trade program which sets a limit on GHG emissions and issues tradable permits to those covered by the system; new standards to reduce emissions from vehicles and fuel; as well as a template for organizing government and bureaucratic resources to develop policy.

Provinces' efforts to work together and adopt similar policy solutions deviated from their traditional pattern of protecting regional interests on climate change, which had come to a head in the early 2000s during the acrimonious debate over Kyoto. Initially, optimism abounded that subnational collaboration and learning would allow new climate change policies to sweep across the country leading to widespread convergence or similarity in provincial responses and force the federal government to respond. Despite this, there has been only limited convergence in provincial policy instruments, as many new initiatives took root in some jurisdictions but not others, highlighting the prominent role that regional interests continued to play. This research project examines the climate change policy response of five provinces (BC, Manitoba, Ontario, Quebec and Alberta) and asks: What explains the selection and adoption of policy instruments in each province?

This research study focuses on how subnational collaboration and cross-jurisdictional policy learning affected provincial policy responses. The study proposes three questions or lines of inquiry. First, what motivated provinces to initially pursue a similar set of policy instruments and engage in collaboration and cross-jurisdiction learning? The four WCI provinces all decided to engage in collaboration; with Alberta being the exception, but each had different motivations, which helps explain the instruments they adopted. Second, what role did collaboration and cross-jurisdictional learning, or policy transfer,¹ play in provincial policy development? This question focuses on the process of designing and developing policy, what did it look like and how prominent was collaboration and learning. Third, how was the selection of policy instruments

¹ Collaboration refers to the broader process of provinces working together and with US states, which can include economic and political motivations and influences on policy development, while cross-jurisdictional learning focuses on the specific act of information sharing and learning between jurisdictions. The term policy transfer is frequently used in the academic literature to describe processes of cross-jurisdictional learning. Policy transfer represents the process by which information about policy in one jurisdiction is used in the policy development of another (Dolowitz and Marsh, 2000). For the purposes of this study the terms policy transfer and cross-jurisdictional learning are used interchangeably.

influenced by policy developed in other jurisdictions as well as local factors in each province? This question focuses on the drivers, influences and constraints, both external and internal to the provinces, which shaped their decisions to choose specific policy instruments over others. These lines of inquiry are applied to each of the five provincial case studies to explain the choice of instruments.

Table 1: Menu of policies adopted in each province

| | Targets | Cap-and-Trade | Low carbon fuel standard | Vehicle emission standards | Administrative and organizational approach | Carbon tax |
|----------|---------|---------------|--------------------------|----------------------------|--|------------|
| BC | ✓ | | ✓ | ✓ | ✓ | ✓ |
| Manitoba | ✓ | | | ✓ | | ✓ |
| Alberta | ✓ | | | ✓ | | |
| Ontario | ✓ | | | ✓ | ✓ | |
| Quebec | ✓ | ✓ | | ✓ | | ✓ |

The research study adopts a policy design approach to the study of provincial responses to climate change. This approach seeks to conceptualize the tools or instruments governments deploy to achieve their goals and understand how and why they choose between them (Howlett, Ramesh, & Perl, 2009). Early studies of instrument selection tended to conceive of a choice between single solutions acting in isolation, such as adopting a financial tool, like a tax, or a command-and-control regulation, and provided simplistic explanations for their selection such as their technical efficiency and effectiveness, the level of coerciveness on society or how strongly citizens were compelled to comply, and the potential political benefits for those making the

decision (Doern & Phidd, 1992; Trebilcock, Hartle, Prichard & Dewees, 1982). These approaches provided an overly-simplistic conception of how governments choose and employ the different tools at their disposal.

More recent work on policy instruments recognizes that, in practice, governments use more than one tool to address a problem or achieve a goal, resulting in a group of interacting interventions described as a “policy mix” (Bressers and O’Toole, 2005). For example, Howlett (2011) distinguishes between substantive instruments, which intervene directly in society to achieve a policy goal, and procedural instruments, which involve the process of policy development and indirectly affect societal outcomes. Howlett argues that governments frequently combine them in different ways to address policy problems. The fundamental question those studying policy instruments need to ask is: why does a particular mix of instruments exist (Howlett, 2005)? Given that provinces considered adopting several different instruments to achieve the end of reducing their GHG emissions and addressing climate change; this study seeks to explain the policy mix that resulted in each.

The first step for all provinces in developing a course of action on climate change was establishing GHG emission reduction targets. Some provinces set them as they joined the subnational jurisdictions that were taking action on climate change while others had already committed to meeting Canada’s Kyoto targets in the early 2000s but adopted them formally in legislation or strategy documents to reaffirm their leadership. WCI also established a collective GHG reduction target for all participating jurisdictions; however, several policy makers that represented their province at WCI noted this was simply an accumulation of the targets already set in individual jurisdictions rather than a single goal that was imposed on members.

A regional carbon market which would drive down emissions and facilitate reaching the GHG targets was the cornerstone of WCI. The carbon market required that members establish cap-and-trade programs in their own jurisdictions which could be linked together to form a regional system. A cap-and-trade system sets a limit on GHG emissions that goes down over time and issues tradable permits to those covered by the system, typically large emitters which produce more than a government-prescribed minimum of GHGs annually. Participants who reduce more GHG emissions than their allotment receive credits which can then be traded to others that are having more difficulty reaching their goals. The goal of the system is to ensure that GHG emissions can be reduced at the lowest possible cost to the economy; creating a regional market increases its effectiveness by expanding the options participants have to reduce their emissions.

Provinces participating in WCI were also required to support California's vehicle emission standards, which restricted the GHG emissions from vehicle tailpipes, as a complementary initiative.² Under the US federal Clean Air Act California can apply for a waiver to set vehicle emission standards higher than the federal level and other states may adopt the state's standards if they chose. California set vehicle standards for greenhouse gas emissions in 2002 which faced a legal challenge from the automobile industry and was denied a waiver by the federal EPA in 2008. The Canadian federal government looked to mirror federal policy in the US to ensure a single standard for the two countries' integrated auto-manufacturing industries. Many states and provinces supported California's standard which placed pressure on federal governments in Canada and the US to accept the policy. Eventually President Obama granted the waiver and, in 2010, opted to set new national standards which would match those set in

² Ontario was originally able to negotiate an exemption from supporting the policy based on its action in other areas.

California, raising them again in 2012. The Canadian federal government quickly followed the US's lead to ensure a harmonized policy.

The low-carbon fuel standard (LCFS), a policy designed to limit GHG emissions from fuel, originated in California and was considered by Canadian provinces - Ontario and BC committed to adopt an LCFS in MOUs with California while Manitoba and Quebec were part of regional initiatives that studied the policy. California's policy proposed to reduce the intensity of transportation fuel by ten per cent by 2020. The calculation includes the life-cycle of fuel, including its production as well as end-use in vehicles. While the policy was enacted in California it was subject to vociferous objections from the oil and gas and ethanol industries and has not been adopted widely by other subnational or federal governments in Canada and the US.

A policy that some Canadian provinces considered that did not originate in California was a tax on carbon. According to economic theory, a tax and cap-and-trade are different ways to price carbon, making it redundant to adopt both (McKibbin & Wilcoxon, 2002). However, some provinces that had committed to WCI's carbon market also considered placing a tax on carbon. Quebec adopted a small levy which was designed to generate revenue for climate change initiatives while Manitoba placed a tax on coal as part of its efforts to reduce use of the fossil fuel in the province. BC implemented the first broadly-based revenue neutral carbon tax in North America. Provinces did not establish formal agreements to share information or harmonize carbon taxes. But they were aware of their provincial counterparts' efforts, creating the potential for cross-jurisdictional learning and thus making it important to include the policy in the study.

In addition to exploring the choice of instruments, such as cap-and-trade and vehicle and fuel standards, this research study examines the influence of provincial collaboration on the

administrative institutions and processes used to develop policy. For example, BC and Ontario both created bureaucratic units located close to the political centre of government, the premier's or cabinet office, which reflected a strategy adopted by the Schwarzenegger administration in California. This study reviews and compares the organizational and administrative decisions that provinces made in designing and developing climate change policy instruments.

There were other policies where the potential for subnational information and collaboration existed which are not covered in this study. For example, a WCI economic analysis (2010b) and a report from its complementary policies committee (2010a) identified a range of policies in the electricity, transportation, residential, commercial and industry sectors, where harmonization between jurisdictions could be beneficial. However, one policy maker from California that worked extensively on the WCI divulged that this laundry list of initiatives was created after the guidelines for cap-and-trade were complete and was more about finding new initiatives to justify the continued involvement of jurisdictions not participating in the regional market. Collaboration among Canadian provinces has also occurred around policies related to climate change adaptation, preparing for the effects of climate change rather than mitigating them. While part of the broader provincial response to climate change, these initiatives are outside the scope of the research project because they were not among the policy instruments provinces pursued as part of the subnational collaboration and momentum that occurred in the mid and late 2000s.

To date, provincial leadership on climate change has provided an alternative to a national response in Canada. Reports by Environment Canada and the now-shuttered National Roundtable on the Environment and the Economy and Environment have noted provinces' important contribution to reducing the country's GHG emissions (Environment Canada, 2014;

NRTEE, 2012) through initiatives like Quebec's cap-and-trade system, BC's carbon tax and Ontario's efforts to phase out coal. The stumbling block for provinces has been that, despite efforts to work together, variation in the instruments they have adopted has led some to conclude that they largely remain a patchwork of disparate policies rather than a coordinated response (MacDonald, VanNijnatten, Bjorn, 2005). However, provincial collaboration has led to limited convergence on policy instruments, which suggests their efforts to work together may have borne some fruit and could provide lessons and insights for the study and practice of policymaking in the future. There are now signs that a new wave of subnational activity could be emerging as Ontario has recently recommitted to joining Quebec and California in cap-and-trade while a new NDP government in Alberta has opened the possibility of new carbon pricing policies. Thus, the prospect of convergence on provincial policy instruments may be increasing, making it essential to understand and learn about their policy responses.

Contributions of the research project

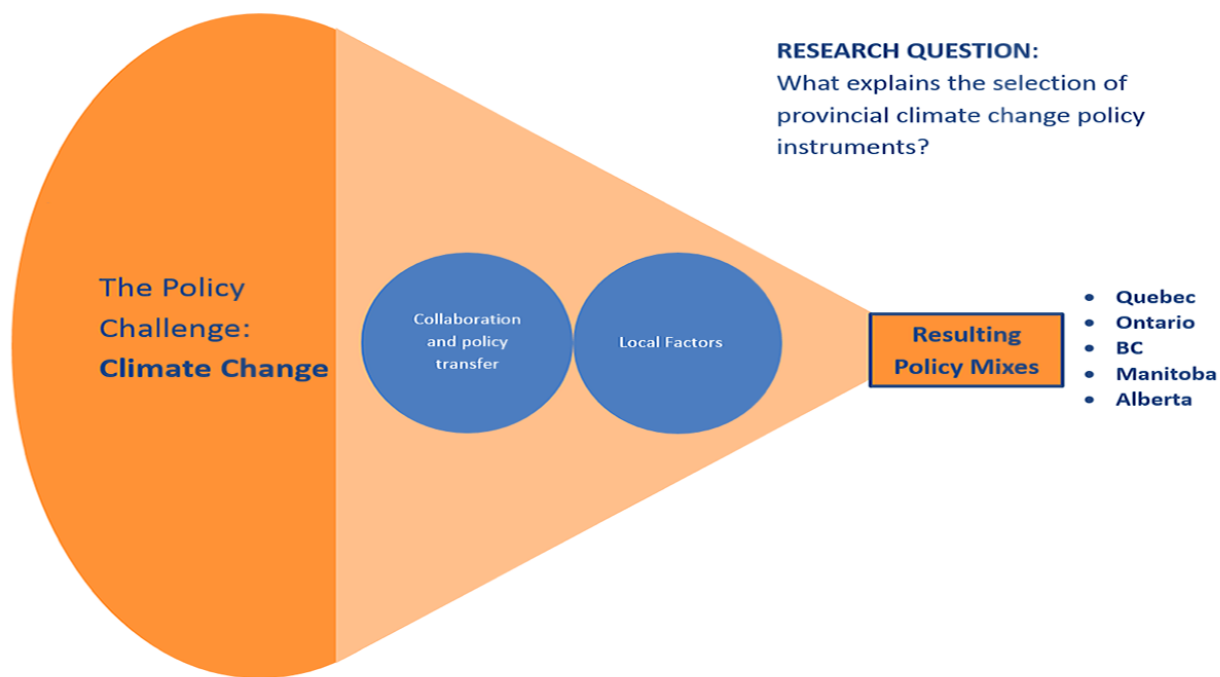
As a former climate change policy analyst for the Manitoba Government I am particularly interested in the information and insights provincial experience can provide for the study and development of climate change policy in Canada. I saw first-hand the momentum that built around climate change and subnational collaboration in 2006, as well as the widespread pull-back in 2010. I realized this could represent a unique case of climate change policy development in Canada, particularly given the clashes among different regions of the country over the Kyoto agreement only a few years earlier. Because climate change was a relatively new policy issue to government and provinces were taking a leadership role in Canada while thinking about responses beyond their borders, this issue represented uncharted territory for policy

makers. The desire to learn more about provincial action on climate change and contribute to our understanding of their responses led me to pursue doctoral studies and propose this topic as my dissertation project.

This study contributes to the academic literature on climate change policy in Canada by adding the experience of provinces, which have been understudied given their position as the primary locus of action on climate change in the last decade. Several studies seek to understand the selection of provincial policy instruments by focusing on the role of local economic and energy profiles, political circumstances and other domestic factors (Houle & MacDonald, 2012; Harrison, 2012b; 2013; Winfield & MacDonald, 2012). However, given that policy development occurred in a period where there was significant coordination and partnerships among subnational governments in North America, this research project makes a unique and essential contribution to the literature by developing and testing an analytical framework (Figure 1) which explores the role of collaboration, policy transfer and cross-jurisdictional learning as well as local factors to explain the policy mix in each province.

Debates regarding the viability of provincial leadership on climate change policy in Canada loom large in the academic community. Some scholars argue that provincial responses represent an inefficient patchwork of policies (Winfield & MacDonald, 2008; 2012; Harrison, 2012; 2013) while others suggest they remain coherent through voluntary cooperation (VanNijnatten & Craik, 2013). The findings of this research project will contribute to this discussion. As well, the study provides insight into the broader potential for subnational actors to drive and coordinate national policy responses in Canada's federal system without direction from the federal government. The project contributes to debate about provincial climate change leadership at the political level, where the Harper government has left provinces to take the lead

Figure 1: An analytical framework for explaining provincial climate change policy instrument selection



on the issue while the NDP and Liberals have proposed national solutions (MacGregor, 2015), by increasing knowledge about provincial experience developing policy in partnership with other subnational jurisdictions without the federal government.

This study contributes to the practice of climate change policy making in Canada by producing knowledge which can assist those engaged in policy development. Preoccupation with climate change policy at the national level in Canada, which has only produced regulations in a few sectors of the economy, has meant that important lessons from provincial experience working with other subnational governments and pursuing policies like cap-and-trade have not been adequately captured. The information produced by this research project will assist climate change policy makers in the future by improving understanding of why and how provincial

policy makers worked with and used information from other jurisdictions, the challenges they faced and the how collaboration and cross-jurisdictional learning contributed to their efforts to establish policies.

Chapter summary

This study consists of 11 chapters, including this introduction. Chapter 2 reviews the existing literature on climate change policy in Canada as well as that on subnational responses to climate change in the US and other countries to garner information which can be useful in explaining provincial instrument selection. Chapter 3 develops the analytical framework to explain provinces' choice of instruments by integrating the existing literature on provincial instrument selection, which identifies local drivers and constraints, and insights from the literature on policy transfer, which captures the influence of collaboration and learning. Chapter 4 describes the methodological approach and design of the research project including why a comparative case study approach was adopted and how particular research methods and strategies were employed.

Chapters 5 to 9 chronicle and analyze policy development in each of the provincial case studies. The analysis reveals that Quebec's commitment to the United Nations Framework Convention on Climate Change (UNFCCC) explains why it was the only province to participate in cap-and-trade, while in BC, Premier Gordon Campbell's commitment to California's example allowed the province to move forward on the LCFS and other initiatives. Ontario and Manitoba participated in subnational collaboration to prepare for and shape national and North American policies; when the momentum towards broader climate change initiatives stalled in the late 2000s, after the economic recession, both provinces opted to adopt a more cautious approach and

abandoned some commitments altogether. Alberta rejected policies like cap-and-trade and the LCFS because of the potential impact on its oil and gas industry but did engage in limited collaboration around foundational pieces of its Specified Gas Emitter's Regulation (SGER). Chapter 10 applies the analytical framework to synthesize and compare the findings from the case-study chapter and explain the limited convergence that resulted in provincial policy mixes.

In the concluding Chapter 11, the study's findings are linked to the academic literature on Canadian climate change policy, by identifying future areas of research; ongoing academic and political debates about provincial leadership on climate change in Canada; and practical policy development, by identifying lessons for policy makers. As provinces continue to play an important role in Canadian climate change policy it is incumbent upon the scholarly and practitioner community to focus more attention on their efforts and develop the tools to understand their responses. This research project takes up that challenge by examining the policy instruments chosen by provinces to address climate change in a period of subnational leadership and collaboration in North America. The analysis and findings produced by the research will assist in building up the knowledge of provincial climate change policies and more fully incorporate their experience into the understanding of Canadian climate change policy.

CHAPTER 2

EXPLAINING THE PROVINCIAL CLIMATE CHANGE POLICY MIX: ARE LOCAL FACTORS ENOUGH?

Chapter 2 reviews an array of literature on climate change policy in Canada, North America and beyond to garner insights which can be useful in explaining the selection of provincial climate change policy instruments and contribute to the three streams of inquiry outlined in Chapter 1. This literature provides a strong foundation for understanding the local factors shaping policy development in each province, particularly the importance of regional economies and energy profiles. Despite this contribution the literature does not adequately explain the important role collaboration and cross-jurisdictional learning played in provincial policy responses given that policy development occurred in a unique period where provinces were working together and following the example of California in the absence of leadership from the federal government. As such, this chapter also demonstrates that there is significant scope for this study to elucidate the provincial experience and contribute to the literature on climate change policy in Canada.

The chapter begins by studying the Canadian climate change literature which has focused on the federal government's inability to develop national policy and meet its international commitments (Macdonald & Smith, 1999; Bernstein, Brunee, Duff & Green, 2008; Harrison, 2007; MacDonald, 2011; Paehlke, 2008; Simpson et al., 2007; Broadhead, 2001; Smith, 2009; Hornsby, Sumerlee & Woodside, 2007; Van Kooten, 2003; Liftin, 2000). Despite taking a leadership role on climate change and looking to adopt innovative policies, provinces have largely been studied in the context of national policy and Canada's international commitments

(Smith, 1998; Winfield & MacDonald, 2008; Winfield & MacDonald, 2012) and the literature only sparingly touches on their efforts to develop policy on their own or collectively.

Next, the chapter focuses on the small amount of work addressing Canadian provinces. The dearth of research on provincial responses to climate change has started to be rectified in recent years with a handful of studies pointing to a variety of factors which shaped their policy responses. These include regional economies and energy profiles (Harrison, 2012b; 2013; Houle & McDonald, 2012; MacDonald & Winfield, 2012; MacDonald, 2011); political circumstances, such as leadership and party politics (Harrison, 2012a), interest groups (Hoberg & Phillips, 2011), public support (Lachapelle, Rabe and Borick, 2012) existing policies (VanNijnatten, 2008) and relations with the federal government (Houle, 2009). However, there continues to be insufficient attention paid to subnational collaboration and policy transfer, a failing which the current research project seeks to rectify.

Finally, the chapter reviews the literature on subnational responses to climate change in other countries. In particular, the research addressing US states (Engel, 2005; 2006; Engel & Orbach, 2008; Engel & Saleska, 2005; Rabe 2004; 2005; 2007; 2008; 2009a) can be helpful in explaining the selection of provincial policy instruments — similar to Canadian provinces, they were taking action on climate change and engaging in subnational collaboration in the absence of federal leadership. Scholarly attention has also been given to the role of national and subnational action in the multi-level governance system of the European Union (EU) (Kern, 2007; Schreurs & Tiberghien, 2007; Jordan, van Asselt, Berkhout, Huitema and Rayner, 2012) and Australia (Jones, 2010; Crowley, 2013; Keddie and Smith; 2009) as well as several Asian and South American countries. The study of provincial responses to climate change in Canada is relatively limited compared to the body of literature in the US and the EU and, as such, this research

project contributes to the international literature on climate change policy in subnational jurisdictions by adding the Canadian experience to that of other countries.

Canadian climate change policy

The literature on Canadian climate change policy can be divided into three areas: economic factors and the influence of the US; political factors, including public support, political leadership and interest groups; and the role of Canada's federal structure and intergovernmental relations. On rare occasions provinces have been included in each area which provides some insight into how their policy responses can be explained, but also demonstrates that they demand more attention given their policy leadership on climate change over the last decade.

Economic factors and US influence

Much of the literature on Canada's climate change policy focuses on economic factors. Many authors have noted that because a large portion of Canada's economy relies on fossil fuels, the country's climate change and energy policies frequently have opposing objectives (MacDonald, 2011; VanNijnatten & MacDonald, 2003; Winfield, 2008; Rollings-Magnusson & Magnusson, 2000). Similarly, others have highlighted that Canada has committed to significant GHG reduction targets in international forums when, given the nature of its economy, it has little chance of meeting them without incurring significant economic costs. For example, Bernstein (2002) argued that the Canadian government's desire to maintain its reputation as an environmental leader and multilateral actor led to commitments which were not in its economic interests as a large exporter of fossil fuels. MacDonald and Smith (1999) concluded that Canada agreed to establish GHG reduction targets because of international pressure, despite strong

domestic opposition, particularly in the west, and because of concerns about the economic impact of any actions to reduce emissions.

Almost all of Canada's energy exports currently go to the United States which, as a result, exercises significant influence on Canadian climate change policy. MacDonald and VanNijnatten (2010) argue that high levels of integration between the two economies, and the influence of business interests, means that Canadian governments frequently move in concert with the US. Similarly, Studer (2013) asserts Canada's dependence on US energy markets makes it beholden to its larger partner in developing climate change policies. As the US government has only taken incremental measures to address climate change, Canada has been reticent to enact more robust policies that could place domestic business at a competitive disadvantage.

Under Stephen Harper and the Conservatives, Canada has adopted a clear position that it will not move forward on new climate change policies unless the US does as well, to avoid placing the Canadian economy at a disadvantage with its largest trading partner. The Canadian government lobbied for formal collaboration on climate change when the Obama administration came to power in 2008 and set its GHG emission targets to mirror those of its southern neighbour at the United Nations Framework Convention on Climate Change (UNFCCC) conference in Copenhagen a year later. After comprehensive climate change legislation failed to be approved by the US Congress in 2010, President Obama has sought to regulate individual sectors of the economy, such as vehicles and coal-fired electricity generation, through his executive powers and Canada has followed suit by developing matching regulations.

Scholars like Howlett (1994; 2000) and VanNijnatten (2008) compare environmental regulation in Canada and the US. They caution that, although the countries face common issues

and set similar goals, different institutional structures frequently create variation in the policy instruments adopted in each country as well as the outcomes that are produced. Specifically, the more open process in the US, involving legislative, administrative and judicial authority, is lengthy and painstaking but often produces stricter regulations and more uniformity among states. VanNijnatten (2008) argues that Canada's process of executive federalism and closed-door meetings between political elites (discussed later in this chapter), typically allows for regional variation and subsequently more room for regulated entities to negotiate rules favorable to their specific circumstances.

VanNijnatten (2008) also notes that policy legacies play an important role in Canadian and US environmental policy. Previous decisions and existing policy regimes in each country influence the instruments they adopt and the outcomes produced. VanNijnatten's insight highlights that policy instruments are not selected "tabula rasa" and previous decisions constrain and shape future choices (Bressers and O'Toole, 2005). For example, Ontario's strategy to phase-out coal, developing in the late 1990s and early 2000s, created significant GHG reductions which later contributed to the province's decision to become a national leader on climate change and pursue policies like cap-and-trade in the mid-2000s.

The Canadian literature on climate change policy also highlights the importance of differences between provincial and regional economies in the development of national policy (Smith, 1998; Stoett, 2009, McDonald, VanNijnatten & Bjorn, 2005), although there has been less study of how these differences shaped provincial responses. Stoett (2009) argues that a national approach in Canada is unlikely because fossil-fuel-reliant provinces, such as Alberta and Saskatchewan, are likely to bear a disproportionate share of the costs of any policy substantially reducing GHG emissions. An unequal distribution of costs makes securing consensus on a

uniform approach to climate change difficult. Most provinces bristle when asked to do more while others do less, leading to political conflict as governments and leaders assert their jurisdiction's interests.

Political factors: Political parties, leaders, interest groups and public opinion

The literature which addresses the role of political factors in Canadian climate change policy has largely focused on the federal government. For example, comparing the Harper Conservatives to previous Liberal governments, Smith (2008) argues that changes in federal political parties made very little difference with regard to substantive efforts to reduce GHG emissions, even though the political rhetoric they use has differed. However, Harrison (2012a) includes the provincial level in a comparative study of carbon tax proposals at the federal level and in BC. She suggests that an important reason the BC tax was adopted was that the party who proposed it, the provincial Liberals, was the only viable business-oriented option. This limited the ability of voters to register their opposition. Harrison's analysis highlights that, surprisingly, parties with ties to business may be better positioned to secure the political support necessary to pass controversial climate change policies.

Harrison (2012a; 2007) also notes the importance of political leadership, highlighting the normative commitment of Prime Minister Chretien in ratifying the Kyoto Protocol at the federal level and of Premier Gordon Campbell introducing BC's carbon tax. Harrison's argument appears to hold true with premiers like Jean Charest in Quebec and Gary Doer in Manitoba: their personal commitment, experience and control over cabinet played a role in mobilizing government on a complex and often controversial file. However, the extent to which political leadership was able to sustain support within government and the province over time, through

changing circumstances, is another story. Even though all three provinces had strong leaders, Quebec and BC were more successful in seeing their policy agendas put in place than Manitoba.

MacDonald (2009) argues that overall there is a lack of leadership on climate change at both the federal and provincial level in Canada which prevents formation of national policy. He attributes this to poor representation of environmental interests in Canada. MacDonald points out that environmental policy is largely made through closed negotiations between governments and industry, which guarantees private, elite-level access to business and generally denies it to environmental groups. In the case of climate change specifically, he argues that business interests have dominated the development of Canadian and US policy, typically working to stall action or push for weak regulations and voluntary, non-enforceable mechanisms (MacDonald & VanNijnatten, 2010). In a study of oil sands regulation in Alberta, Hoberg and Phillips (2011) found that although criticism from environmental interests led to their inclusion in policy debates, which had traditionally involved only the province and industry, this was largely symbolic and intended to mollify political pressure. The authors found little substantial change in policy or the distribution of power among the actors involved after the process was opened up to new interests.

In addition to political parties, leaders and interest groups, public opinion may also have an impact upon climate change policy. Lachapelle, et al. (2012) suggest that the Canadian public is generally supportive of government action on climate change, particularly when compared to the US. The authors note that historically support for action on climate change in Canada has been very elastic and changes depending on high profile events and the salience of other issues. According to MacDonald and VanNijnatten (2010) climate change received significant public attention in Canada during two periods. These came in 2002, when the Liberal government's

decision to ratify the Kyoto agreement sparked a national debate on climate change, and in 2006 when Arnold Schwarzenegger toured the country as part of growing awareness on the issue in North America.

Lachapelle et al. (2012) also included provincial jurisdictions in their study and found that public support plays a role in their policy responses. For example, they note that the most ambitious policies, a carbon tax and a cap-and-trade system, have been adopted in BC and Quebec respectively where public awareness and support for action on environmental issues is high. However, Ontario's decision to shut down coal plants has produced the largest amount of GHG reductions of any province and Alberta was the first Canadian provinces to effectively put a price on carbon indicating that public support does not tell the entire story of provincial climate change policy.

Some authors note that Canada's first-past-the-post electoral system, the candidate receiving the most votes in each riding wins the seat, does not allow for the same representation of minority interests, which might include concern for the environment, as proportional representation systems, where there is some mechanism to allocate seats based on popular support (Harrison & Sundstrom, 2010; MacDonald, 2009). As a result, even when there is public support for addressing climate change, it will not necessarily translate into pressure on political leadership or action in government institutions. For example, the Green Party of Canada has received only one seat in parliament in its history despite consistently capturing a larger share of the popular vote (Parliament of Canada, n.d.) and the first Green representative at the provincial

level was only elected in 2012 in BC.³ The impact of different electoral systems highlights the important role that institutions can play in climate change policy. But perhaps the most important institutional feature affecting Canadian climate change policy is the country's federal system.

Federal relations: Constitutional powers and intergovernmental negotiations

Canada's federal system is a significant factor affecting climate change policy in the country since it gives expression to the economic and political differences that exist across regions and provinces in the country. Thus, most of the attention provinces have received in the Canadian climate change policy literature has been in the context of federalism and intergovernmental relations.

Canada's federal system provides shared responsibility among the national and provincial governments on environmental issues; therefore, there has been significant study of the constitutional powers of each level of government on climate change. The first legal issue on climate change policy in Canada emerged as part of the debate between the provinces and the federal Liberal government over Kyoto ratification. The question was whether Ottawa was within its right to enter into an international agreement which infringed on provincial jurisdiction over natural resources (Kukuchka, 2005). As both levels of government began to develop policies to reduce GHG emissions, scholars turned their attention to the constitutionality of specific policy instruments including traditional command-and-control regulations (Hogg, 2008), carbon taxes (Chalifour, 2009; Hsu and Elliot, 2009), and cap-and-trade (Elgie, 2009). The general conclusion of this body of literature is that the federal government has the authority to enter into international agreements that address climate change and both levels of government

³ Green parties in Germany and New Zealand, which employ proportional representation in their electoral systems, have consistently elected a higher number of members to national legislative bodies and these parties have had a large say in policy decisions as they have often been part of coalition governments.

are on solid constitutional footing in implementing the range of policy instruments available to address the issue and reduce emissions.

Because federal and provincial governments in Canada are both likely to have the constitutional authority to enact climate change policies, each level of government's involvement on the file and the relationship between them is largely determined through political processes. Harrison (1996) suggests that provinces have historically been more active in environmental policy because of their control and interest in natural resources. She argues that the federal government has only attempted to expand its influence on environmental policy when there are clear electoral incentives to be gained. According to Harrison, high public demand for action on environmental issues is only sporadic as the costs of action are frequently concentrated in specific groups and regions while the benefits are more diffuse, extending the traditional "tragedy of the commons" metaphor (Hardin, 1968) to federal systems and intergovernmental relations.

When both levels of government are inclined to act on environmental policy, Canada's federal parliamentary system, and history of frequent majority governments in Ottawa and the provinces, has meant that policy is largely made behind closed doors through negotiation and compromise at the cabinet level, rather than formal legal decisions in legislative or judicial branches like in the US (VanNijnatten, 2008; MacDonald, 2009). Canadian intergovernmental negotiations on environmental policy typically occur through meetings of first ministers, senior ministers and high level bureaucrats, following Canada's tradition of executive federalism (Smiley, 1980). In 1998 the federal government and all provinces except Quebec signed the Canada-wide Accord on Environmental Harmonization which sought to improve cooperation

and coordination on environmental issues. However, climate change was not covered under the agreement as significant divisions remained around Canada's participation in Kyoto.

National climate change policy in Canada was originally debated in the joint meetings of federal, provincial and territorial environmental and energy ministers (JMM). However, this process ended in 2002 as part of the fallout from the Chretien government's decision to ratify the Kyoto agreement. Under Paul Martin, the federal government worked with individual provinces to develop and support their initiatives, often through shared funding arrangements. The Conservative government and Stephen Harper reversed course by indicating it would not try to meet the Kyoto targets, mostly because the US had also declined to sign the international agreement (Paehlke, 2008). The Conservative government's position left it up to the provinces to develop more aggressive policies if they chose. The federal government even signed equivalency agreements with some provinces which gave them primary responsibility for regulating GHG emissions and formalized the position that the federal government would not get involved. Ottawa's current approach of regulating individual sectors, following the lead of the Obama administration, has led to increased communication and coordination with the provinces. However, collaboration has largely been among bureaucratic officials and has rarely made its way to the political level (OAG, 2012).

Smith (1998) argues that Canada's system of intergovernmental relations, which requires consensus of the federal government and all provinces, has led to the lowest common denominator in national climate change policy, such as weak regulations and voluntary measures. This is because oil-and-gas producing provinces like Alberta and Saskatchewan are unlikely to agree to measures which would more than minimally affect their industry. In two studies of Canadian federalism and climate change policy, Winfield and Macdonald (2012;

2008) also conclude that Canadian intergovernmental coordination institutions are weak and have not performed well in overcoming regional differences and producing a national policy. In a comparison with the Australian federal system, Gordon and MacDonald (2011) argue that Canada's intergovernmental coordination mechanisms were less effective in generating meaningful discussion and debate. The authors argue this ultimately led to less substantial climate change policies, since Australia was able to move further towards a national cap-and-trade system.

The Canadian literature has covered how provincial differences and Canada's federal system made it difficult to achieve a national consensus on climate change and Kyoto. But many provinces were committed to Kyoto and the UNFCCC and remained so even when the federal government pulled out and the national climate change process in Canada ground to a halt. Canadian premiers and provincial environment ministers were fixtures at the annual COP meetings and Quebec particularly advocated for the role of subnational governments in the negotiations (Quebec Government, 2010). The analysis undertaken in this study confirms that these connections to the international process influenced the policy responses of specific provinces and the policy instruments they chose.

Belanger (2011) has taken a different view of Canada's federal system and argues that, despite the conventional wisdom that a national approach to climate change is preferable, allowing provinces the space to develop policies suiting their needs is a more feasible and effective way to address the issue. He suggests provincial initiatives should be conceived as a tapestry of different but connected programs, rather than as an uncoordinated patchwork. According to Belanger, centralized policy making imposes a single solution on a country with many diverse environmental and economic realities, stifling policy innovation and creativity

which rely on local knowledge. In addition, Belanger argues provincial actors are often better positioned than the federal government to reach political compromise among the disparate interests in Canadian society on climate change. Provinces can also avoid the gridlock that frequently besets a controversial issue like climate change because they operate away from the spotlight of national politics. Finally, Belanger suggests complex decisions about balancing protection of the environment and economic development are best taken at the local level because provincial governments are more sensitive to the specific issues and concerns that exist in each region.

Despite Belanger's arguments, the literature on climate change policy in Canada has primarily focused at the federal level and when provinces have been addressed it has typically been within the context of national policy. This is not sufficient to understand and address the actions of provinces on climate change as, since 2006, their primary focus has been on developing their own policies and working together and with US states without direction from the federal government. As such, it is essential for scholars to focus more attention on climate change policy responses developed by the provinces.

Climate change policy in Canadian provinces

The study of provincial responses to climate change in Canada has emerged in the last five to seven years and is still limited. Several studies and reports from non-government organizations document or describe major provincial policy initiatives (Winfield, 2008; Holmes, 2012; The Pembina Institute, 2009; Conference Board of Canada, 2011; International Institute for Sustainable Development, 2011; NRTEE, 2012; COF, 2007). These studies are essentially

laundry lists of provincial strategies and programs, providing little in the way of explanation or understanding of provincial climate change policy responses.

A few studies of policies in Canadian provinces broach climate change, including ones on energy and sustainable development. In Hoberg and Phillips' (2011) study of the policy network surrounding oil sands regulation climate change is one of several environmental issues, along with local water quality and wildlife habitat preservation, on which the discussion is centered. Ontario's efforts to shut down its coal plants and promote renewable sources of electricity have drawn scholarly attention as well (Rowlands, 2007). However, the study largely views these actions' contribution to local air quality and economic development rather than climate change. Quebec's 2006 sustainability strategy, which included addressing climate change and was driven by the provinces' keen interest in work done by the UN, has also caught the eye of European scholars studying subnational actors who are participating in international processes (Happaerts, 2012a; 2012b; Happaerts & Van den Brande, 2011).

Several studies review climate change policy in one province. BC's carbon tax has drawn international acclaim leading to academic studies as well as more practical analysis of its effectiveness (Harrison & Peet, 2012; Harrison, 2012a; Rabe & Borick, 2012; Elgie & McClay, 2013; Jaccard, 2012; Rhodes & Jaccard, 2013). Houle (2009) looks at Alberta's shift from supporting voluntary climate change measures to mandatory regulations in the early 2000s, concluding that it resulted from the province's desire to establish jurisdiction in the area and avoid federal regulations. While focusing on one province can increase understanding of its experience, the capacity to generalize findings across provinces is limited – only a comparative study of several provinces can identify patterns and assess whether similar factors led to similar effects in different jurisdictions.

Houle and MacDonald (2012) offer the only study of multiple Canadian provinces' response to climate change. They use a framework developed by Rabe (2004) to compare how the issue was framed in different jurisdictions (as environmental threat, economic opportunity or economic threat) and how the policy responses are labelled (explicitly or implicitly addressing climate change). States who have taken an active leadership role are considered "prime time", while those looking for economic and other benefits were described as "opportunistic". "Stealth" states are looking for economic advantages but highlight this over their climate change goals. "Hostile" states deliberately take a stand against climate change policy to protect against perceived economic threats; "indifferent" states have similar motivations but take no action.

Rabe (2004) argues that how states define the climate change issue determines the policy solutions that are employed. States that see climate change as an environmental threat tend to use command-and-control regulation, those who see an economic opportunity support market mechanisms while those who are wary of the economic implications resort to symbolic and voluntary measures. Applying the framework to Canadian provinces, Houle and MacDonald (2012) found that the Maritime Provinces were most likely to frame climate change as an environmental threat; BC, Manitoba, Quebec and Ontario were likely to see climate change as an economic opportunity; and Alberta and Saskatchewan were primarily concerned about the threat to economic development. They conclude that the study supports Rabe's hypothesis that those seeing climate change as an economic opportunity tend to support market mechanisms. The authors have a harder time making the connection between those who view climate change as a threat and command-and-control regulations, as well as those wary of negative economic impacts and voluntary measures.

A key factor that Houle and MacDonald's work does not address is the role that subnational cooperation and policy transfer played in provincial policy responses. Scholars that have addressed the emergence of cooperation among Canadian provinces and US states also focus on economic factors to explain provincial responses and their decisions to collaborate or not (Winfield & MacDonald 2012; MacDonald, 2011). For example, Winfield and McDonald (2012) argue that concerns about economic competitiveness and access to US markets were the primary concerns driving provincial collaboration among the WCI provinces. They argue that provincial efforts are unlikely to amount to anything more than a patchwork of policies. The current study will demonstrate that this picture of provincial policy development is an oversimplification as provincial collaboration and information sharing also influenced their responses and led to limited policy convergence.

Harrison (2012b) focuses on the economic impediments to broader cooperation among subnational governments in North America under the leadership of California. She argues that the diffusion of policies has been confined to provinces with hydroelectricity resources, which keep their emissions low and provide export opportunities, like BC, Manitoba and Quebec. She goes further to note that some of these provinces have backed out of cap-and-trade and attributes this to the absence of a national response in Canada to level the economic playing field. Harrison places more faith in the influence of executive action at the federal level in the US to spur policy development in Canada. For example, the Obama administration's move to regulate vehicle emissions and coal-fired electricity production was immediately followed by the Canadian government.

In a subsequent article, Harrison (2013) reiterates her position that diffusion of provincial and state climate change policies is unlikely because the only jurisdictions willing to take action

already have low emissions and are looking for economic benefits. She also suggests those taking action typically rely on policies that export the costs to other jurisdictions, such as standards for products imported from abroad, which means they are likely to face significant opposition if adopted elsewhere. Harrison argues that these policies carry several other problems which make them unlikely to be adopted. These include: double counting of GHG reductions by the jurisdiction enacting the regulation and the jurisdiction where reductions are achieved; leakage, as economic activity simply moves to another jurisdiction without the regulation; and legal challenges on the basis that the policy violates interstate commerce clauses.

Other scholars take a more positive view of the cooperation on climate change that has emerged among subnational jurisdictions in North America (VanNijnatten, 2003; 2004; Craik, Studer & VanNijnatten, 2013; Ostrom, 2009). They tend to view cooperative arrangements as a new form of regional environmental governance that allows for varied approaches which remain coherent through decentralized voluntary agreements and can address issues crossing national boundaries. According to these authors, this new governance system is facilitated by broader trends of globalization, increased economic integration and trade, and a shift in power and responsibility from national to local governments. These dynamics create a multi-level governance environment, involving national, subnational and local governments, as well as non-government actors.

Selin and Vandever (2009; 2011) argue that climate change needs to be framed and addressed as a regional issue. They extoll the virtues of this approach including the potential for policy learning, economic efficiencies, taking global leadership and more effectively adapting to the effects of climate change in the region. They point to the New England Governors and Eastern Canadian Premiers (NEG-ECP) forum (2005) as an example of successful regional

collaboration that was headed by subnational governments. The authors argue the success of the NEG-ECP process was driven by increased attention to climate change internationally, regional and local political incentives, and the activities of an influential advocacy coalition among state and provincial level civil servants and NGOs.

To date the study of provincial collaboration on climate change has not provided in-depth analysis of the influence of policy transfer and other cross-jurisdictional influences on provincial policy responses. Harrison (2012b; 2013) provides a high-level overview of provincial policies using economic theory to explain current patterns of policy development and project the likelihood of adoptions in other jurisdictions. Those who view subnational cooperation on climate change as a new form of environmental governance cite cross-jurisdictional policy learning as a possible benefit (Selin and Vandever, 2005). However, these studies do not explain how collaboration and cross-jurisdictional learning contributed to the mix of policy instruments found in each province. The next section reviews the study of climate change policy in US states, which also engaged in subnational collaboration and have been studied to a greater extent than Canadian provinces, as well as subnational jurisdictions in other countries. This literature provides additional insights which may be useful in explaining provincial policy responses.

Subnational climate change policy in the US and other countries

Similar to Canadian provinces, US states began to take a leadership role on climate change in the 2000s as the federal Bush administration rejected Kyoto and developed a weak national response. As in Canada, American state action on climate change has led to a plethora of studies of the jurisdictional issues they raise and how they will interact with each other, with

mixed conclusions. Huffman and Weisgall (2008) argue that state action on climate change could be subject to constitutional challenges based on conditions of federal supremacy, restrictions on inter-state commerce, and interference in foreign affairs. Other scholars assert that constitutional issues do not appear to be a barrier to state activity (Funk, 2009, Lawrence, 2009, Drapalski III, 2011). Some scholars conclude that a national cap-and-trade system would leave space for state action in areas such as renewable portfolio standards, energy efficiency initiatives and land and transportation planning (Engel, 2009; Stewart, 2008). Others suggest that such a system would eliminate the motivation for states to do more in these areas because they would not receive credit for the reductions (Burtraw & Shobe, 2009). Flipping the discussion on its head, Keeler (2007) suggests that state cap-and-trade policies may inhibit a robust national system because the federal government will face pressure from industry to match the least stringent state policy. However, Monast (2008) contends that regional and federal cap-and-trade markets could be integrated seamlessly.

A few US studies include provinces as they compare the constitutionality of regional cooperation by subnational governments in Canada and the US. Lawrence (2009), Kazazis (2012) and Engel (2005) have studied the legal issues associated with the WCI. Lawrence suggests that the initiative is likely to withstand constitutional challenges in Canada and the US. But Kazazis and Engel believe that the international activities of subnational governments in both countries are restricted by their respective federal systems. Klinsky (2012) offers a more practical analysis of the WCI by providing several important lessons that emerged from the initiative which could apply to provinces and states. These include the need for local champions, the importance of agreement on policy goals and the influence of external factors, such as the

2008 economic downturn, the failure of a federal system in the US and the experience of the European trading system.

While Canadian provinces and US states were both looking to take leadership on climate change in the absence of a strong federal response, there are important differences between the US and Canadian federal systems which must be kept in mind. States have had less jurisdictional authority on environmental issues than Canadian provinces as they are typically tasked with implementing policies set at the federal level. Climate change represents a unique situation where states took a leadership role and developed policy initiatives in the absence of a federal mandate, creating a new pattern of policy making which tested the limits of their jurisdictional authority (Vig and Kraft, 2010). As discussed above, in Canada environmental issues are a shared jurisdiction and provincial ownership of natural resources has led provincial governments to be more active on the file. While unique, provincial leadership on climate change does not test the limits or their constitutional authority to the same extent as US states, and jurisdictional conflict over environmental issues has been ongoing, making provinces' actions on climate change much more familiar terrain.

One key policy the US literature has focused on is renewable portfolio standards (RPS), state-wide targets for renewable energy use. RPS have received particular attention from US scholars because they represent one of the best examples of subnational climate change policy innovation and emulation, as the standards spread widely among US states and even made their way onto the US federal government's agenda. Matisoff (2008) tests whether states' adoption of RPS arose from emulation and learning among jurisdictions or internal factors which emerged independently in each state – he finds that the latter was more significant. Weiner and Koontz (2010) assume that both factors played some role and suggest the RPS example demonstrates

that states will compete for environmental leadership as well as economic advantages. Others have adopted a more practical policy analysis approach studying the effectiveness of RPS by looking at the rate of compliance with the regulation (Fischlein & Smith, 2013) or drawing lessons for policy makers regarding how they can be implemented and combined with other policy instruments (Carley, 2011; Carley & Miller, 2012; Carley & Smith, 2012; Yi and Feiok; 2012).

RPS have not been widely considered by provinces as many of them already generate most of their electricity from low-emitting hydro sources.⁴ In addition, in all provinces except Alberta electricity production is publicly owned allowing the provincial government to intervene and influence the make-up of generation capacity within their jurisdictions directly rather than setting targets for third-party providers. For example, Ontario and Manitoba simply directed their publicly-owned utilities to shut down coal-fired plants. Therefore, while RPS provide insight into how subnational climate change policies spread and whether they are effective, careful consideration must be taken when generalizing these findings to other policies and systems with a different approach to governing and regulating electricity generation like Canada.

Where the US state literature has the most to offer this study of Canadian provincial climate change policy concerns why states would reduce their emissions given the relatively small contribution subnational governments make to global GHG emissions (Engel, 2005; 2006; Engel & Orbach, 2008; Engel & Saleska, 2005; Rabe 2004; 2005; 2007; 2008; 2009a). The motivations for state action identified in these studies run the gamut from local political and

⁴ BC committed to generating at least 90 per cent of its electricity through low-carbon sources in 2007, after the Campbell government cancelled its plans to build two new coal plants. It has since amended the standard to accommodate the development of energy-intensive LNG plants in the north of the province (Ministry of Energy and Mines, 2012).

economic benefits to the desire to be a leader or not be left behind by other jurisdictions, local triggering events like heat waves and forest fires, influential networks of climate change experts and the lack of policy coming from the federal level. California stands out from other states because its size and record of environmental leadership in North America give it the capacity to produce significant GHG reductions on its own while influencing national and continental policy (Mazmanian, Jurewitz, & Nelson, 2008; Urpelainen, 2009; Doughman, 2007).

Chapter 3 picks up the discussion of subnational motivations for taking action on climate change and expands on California's role in Canadian provincial policy responses. At this point it suffices to say that, although the experience of US states can assist in understanding provincial policy responses to climate change, given the different contexts in which they operate, and the ability of the US to influence Canadian policy, further investigation of provinces' unique experience is required to explain their decisions regarding policy instrument selection. Before concluding the discussion on how this research project is informed by the literature addressing climate change policy in Canadian provinces and US states, it is pertinent to touch on the study of subnational responses to climate change in other countries.

Subnational climate change policy in the EU, Australia and elsewhere

Subnational action on climate change has been studied in countries and regions other than Canada and the US. Kern (2007) compares countries in the European Union to US states and notes that strong leaders, like the United Kingdom and Germany, have played a similar role to California in driving the climate change agenda. However, she argues the EU has established a baseline agreement and framework which requires a minimum level of activity among European countries, while in the absence of a federal mandate there is more diversity in the response of US

states, and ostensibly Canadian provinces as well. Similarly, Schreurs and Tiberghien (2007) argue that the EU has been an international leader because of a handful of active countries, as well as the multilevel system which encourages competition for leadership among the different levels of governance, reflecting what they term multi-level reinforcement.

The dynamics of the EU system and the leadership of the federal government suggest an important difference which limits the ability to draw insights about the experience of US states and Canadian provinces. For example, the development of the Emissions Trading System (ETS), the EU's cap-and-trade system, was characterized by a shift in policy capacity and decision-making authority from national governments to the European Commission when proponents of cap-and-trade were unsatisfied with the current pace of policy development (Wettestad, 2009, Wettestad, Eikeland & Nilsson, 2012). A similar option was not available in North America.

However, more recent work by Jordan, van Asselt, Berkhout, Huitema and Rayner (2012) argues that Schreurs and Tiberghien's analysis is incomplete. Although the EU had displayed leadership in setting targets and adopting specific instruments, such as cap-and-trade, it still faces challenges operating as a unified actor in international negotiations and exploring other policy instruments available to address climate. The authors identify several paradoxes in the EU system including the need to be a unified actor in its international relations despite internal diversity, significant harmonization of policies but a differentiated share of the costs or burdens, and establishment of ambitious targets but constrained choice of policy instruments and implementation capacity. Jordan et al.'s analysis suggests that the EU may be wrestling with many of the same issues faced by the Canadian and US federal systems. For example, despite being considered a leader on climate change, Germany was inclined to protect its local auto-

manufacturing industries against new vehicle emission standards (Gulbrandsen & Christensen, 2014), similar to Ontario which for many years opposed new auto standards in Canada.

In Australia, similar to Canada and the US, state governments took action on climate change in the mid-2000s when the conservative Commonwealth government under John Howard's Liberals opposed the Kyoto protocol and was reluctant to take action. However, as in Canada, the study of state and territorial action in Australia has typically focused on their role in national policy making, including discussion of cap-and-trade and carbon pricing policies (Crowley, 2013; Keddie and Smith; 2009) and renewable energy targets (Jones, 2010). Less attention has been directed to explaining the specific experiences of states.

Subnational climate change policies outside western developed countries have typically only been studied in comparison with their western counterparts. In a study of the US and China, Koehn (2008) finds that Chinese provinces, like American states, are taking action on climate change although policies typically address GHG emissions implicitly - they are designed to address local air pollution and health concerns or spur economic development. Schreurs (2008) looks at subnational governments in the US, EU (sub-supra-national), Japan and China. She finds that Tokyo, Kyoto and some Chinese provinces acted as subnational climate change leaders, like California and Germany, and developed innovative policies which were influential in other subnational jurisdictions and at the national level. De Oliveira (2009) compares the implementation of climate change policies in subnational governments in Japan, Germany and Brazil and finds that success is influenced by integration with policies in other sectors as well as policies at the national level. Only recently have studies of subnational government policies that focus exclusively on less-developed countries begun to emerge in places like Mexico and Brazil (Valenzuela, 2014; and Stezer, 2014, respectively).

Conclusion

The literature on subnational governments in Canada, North America and beyond provides valuable insights that contribute to the research questions posed by this study. The Canadian climate change policy literature has generally undervalued the role of provinces but highlights the importance of regional differences and the country's federal system. The work that does address provincial climate change policy can be useful in establishing the role of domestic factors in the selection of provincial policy instruments, including economic and energy profiles (Houle & Macdonald, 2012; Winfield & MacDonald 2012; MacDonald, 2011), public opinion (Lachapelle, et al., 2012), political leadership (Harrison, 2012), interest groups (Hoberg & Phillips, 2011), relations with the federal government (Houle, 2009) and existing policy legacies (VanNijnatten, 2010). The study of climate change policy in US states also helps to understand the policy responses of the Canadian provinces, including their motivations and the influence of California, although it is necessary to account for provinces' unique experience in the Canadian context.

The literature reviewed in this chapter also demonstrates that in the last decade provinces have engaged in collaboration with each other and followed the example of subnational leaders like California in developing policy rather than relying on direction from the federal government. Explaining the selection of provincial climate change policy instruments requires going beyond the local circumstances in each province and considering the role of collaboration and cross-jurisdictional learning on policies developed outside provincial borders. Including the impact of cross-jurisdictional influences also fills an important gap in the literature on provincial climate change policy responses. Chapter 3 brings together literature on policy transfer with the insights produced in this chapter to develop an analytical framework which can achieve these two goals

of explaining more fully the selection of provincial policies while contributing to the Canadian climate change literature.

CHAPTER 3

STUDYING COLLABORATION AND POLICY TRANSFER ON CLIMATE CHANGE FOR SUBNATIONAL JURISDICTIONS: AN ANALYTICAL FRAMEWORK

This chapter develops the analytical framework that is used to explain the selection of provincial policy instruments. It begins by refining and expanding on the three research questions that were introduced in Chapter 1: What initially motivated provinces to pursue a similar set of policy instruments and engage in cross-jurisdiction learning? What role did collaboration and policy transfer play in provincial policy development and how was the selection of policy instruments influenced by policy developed in other jurisdictions as well as by local factors in each province? The discussion surrounding collaboration and policy transfer is merged with insights drawn from the existing provincial climate change literature to adopt a “multi-theoretical approach” (Rhodes, 1995), combining different conceptual and theoretical insights to create a framework that generates empirically-grounded hypotheses about the selection of provincial instruments.

Besides the obvious desire to share information on policy development, a range of motivations for provincial collaboration and cross-jurisdiction learning are identified, such as the potential to realize economic benefits and political advantages by working with others. To assess the role of collaboration and cross-jurisdictional learning in provincial policy development, this chapter highlights several important areas of investigation, including the actors involved in transfer, how information about policy was used and the pathways through which transfer occurred. Finally, the effect collaboration and policy transfer among Canadian provinces and with US states can have on the selection of policy instruments is explored, including the unique

influence of California. The factors and insights identified in this discussion are then combined with salient domestic variables identified in Chapter 2 to create a framework that guides the inquiry and generates hypotheses about the selection of policy instruments in each province.

Provincial motivations for engaging in cross-jurisdictional policy learning

The first section explores the question: what initially motivated provinces to pursue a similar set of policy instruments and engage in cross-jurisdiction learning? The obvious answer is that provinces collaborated to engage in shared learning about new climate change initiatives which would assist in developing policy. Most collaborative agreements provinces signed with each other and US states note the importance of pooling their efforts by sharing information (Pacific Coast Collaborative, 2007; British Columbia Government, 2007; Ontario Government, 2007a).

The nature of the climate change issue, which has been described as a wicked or super-wicked policy problem (Australian Public Service Commission, 2007; Lazarus, 2009), also contributes to provincial motivation to work with other jurisdictions. GHG emissions have the same impact on global atmospheric levels no matter where they originate and the effects of climate change do not respect political boundaries, so cooperation and coordination among jurisdictions is required to address the problem. Collaboration may be even more important to subnational jurisdictions because in most cases their individual efforts will have a negligible impact on global emissions. For Canadian provinces looking to take action on climate change, engaging with other jurisdictions to increase their impact was a key component of their strategies. For example, many provinces were drawn to the prospect of working with California

because it provided an opportunity to pool their efforts with a larger jurisdiction that had a higher capacity to reduce global GHG emissions and could set the tone for policy in the US and Canada.

The US literature identifies several factors which may have motivated subnational governments to engage in collaboration and information sharing to address climate change. Engel (2006) suggests subnational jurisdictions who took action on climate change were drawn by the opportunity to realize local economic benefits. For example, participating in regional initiatives that were pursuing new climate change policies also gave provinces with hydroelectric resources, such as Manitoba and Quebec, the opportunity to promote their clean energy product to jurisdictions that were trying to reduce their dependence on fossil fuels.

Engel (2006) also suggests that subnational jurisdictions were motivated to act on climate change by political factors. Provincial politicians saw the benefits of being viewed as a leader on a file where public demand was increasing and, as momentum built across North America, they feared being left behind or branded as laggards. These reputational benefits may explain provincial efforts to engage in collaboration because working with others frequently brought positive attention to their leadership and demonstrated that they were part of larger movement towards addressing climate change in North America.

One of the reasons that many subnational policy makers could gain politically from addressing climate change was that, even though public demand for action was increasing, the federal governments in Canada and the US remained unwilling or unable to adopt a strong policy response (Rabe, 2008). Canadian provinces, most notably Ontario, looked to fill the void left by an inactive federal government and drive national policy. In doing so, provinces also sought to put forward their own interests and ensure they would be treated fairly if a national policy did

emerge. To increase their political clout, provinces frequently looked to engage with likeminded partners that would support and collaborate on policy initiatives to increase their influence with the federal government.

Given the influence that US policy decisions can have on Canada, provinces were often equally as interested in collaboration and information sharing with US states to gain a seat at subnational tables which could influence North American policy. As a government policy analyst working on climate change in one province noted: “we always look to California to see which way the US will go”. By working with states like California, provinces could stay apprised of and prepare for broader continental policies that might emerge in the future while increasing their capacity to promote their own interests.

Although provinces and US states faced similar stances on climate change from their federal governments and frequently worked together on policy development, it is important to keep their unique institutional contexts in mind. As discussed in Chapter 2, while US states’ action on climate change has tested the limits of their constitutional authority, in Canada environmental policy is a shared jurisdiction. Most notably, Alberta pursued its own approach to climate change to protect provincial ownership of natural resources and prevent federal intrusions on its ability to develop its oil and gas industry (Houle, 2009). Harrison (2012b) suggests that Canadian provinces were generally less inclined to pressure the federal government to adopt national policies than US states. She points out that Quebec, which supported strong action on climate change, joined Alberta in arguing for more provincial autonomy in policy development.

The discussion of motivations leads to several broad factors which could influence provinces' decision to engage in collaboration on climate change policy instruments: shared learning in policy development, the nature of the climate change issue, export opportunities, reputational benefits, and influencing Canadian and North American policy. However, the desire to protect provincial jurisdiction and see continued development of the oil and gas industry led Alberta to largely reject collaboration and develop its own approach. After exploring what led provinces to engage in collaboration and cross-jurisdiction learning, the next section investigates the role it played in provincial policy development.

Policy transfer in Canadian provincial climate change policy development

To determine the role that cross-jurisdictional learning played in provincial policy development the second section of this chapter explores the literature on policy transfer: “the process by which knowledge about policies, administrative arrangements, institutions and ideas in one political system (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another political system” (Dolowitz & Marsh, 2000, p. 5). The rise of policy transfer as an important component in policy development is typically attributed to processes of globalization and developments in information and communication technologies which effectively shrunk the globe and increased cross-pollination of policy ideas and experience among jurisdictions (Dolowitz & Marsh, 2000). Those adopting the approach seek to understand the micro-level processes and dynamics by which policies move from one jurisdiction to another by virtue of imitation or lesson-drawing (Wolman, 1992; Rose 1993).

Policy transfer is frequently thought of as an instrumental process where bureaucratic or technical officials mine other jurisdictions for examples of programs that could be used in

developing policies at home. For example, policy makers draw lessons by determining under what circumstances and to what extent a program that is effective in one place will transfer to another (Rose, 1993) and pinch ideas from other jurisdictions as a short-cut in policy analysis and design (Schneider & Ingram, 1988). However, it is clear that political factors affect how lessons are drawn (Robertson, 1991), and information from other jurisdictions is used by a variety of actors, including politicians, interest groups and international organizations, in furthering their respective interests (Dolowitz & Marsh, 2000). Bennett (1991a) outlines how policy makers use information from other jurisdictions in the policy processes: placing an issue on the political agenda, mollifying political pressure, providing an exemplar, indicating the range of options available, or reinforcing decisions that have already been made.

The policy transfer literature also elaborates the ways in which policy makers use information from other jurisdictions (Dolowitz & Marsh, 2000; Evans, 2009; Rose, 2005). The exact number of categories and terminology differ but most frameworks involve: *copying*, replicating the policy as it exists; *emulation*, using the ideas behind the policy to create a new one; *combinations*, adopting a mixture of several policies to create a new one; and *inspiration*, where a policy in another jurisdiction drives a change but the design of the resulting policy is not influenced by the original. A specific form of inspiration known as benchmarking is identified by Harrison (2006) who asserts that provinces frequently look at what other jurisdictions are doing, not to copy them, but to gauge where they rank among their peers. This is common in the case of government spending or outcomes in a specific policy area, such as social-welfare or poverty indexes, but has also occurred with regard to specific policy instruments or organizational structures (for a climate change example see Holmes, 2012).

Bennett (1991b) outlines four processes through which policy convergence - defined as policies becoming more similar over time - is likely to occur. *Emulation* occurs when policy makers unilaterally draw lessons from other jurisdictions, *elite-networking* is a collaborative agreement among multiple jurisdictions to share information for policy development in their own jurisdictions, *harmonization* entails a joint effort among jurisdictions to address a common problem typically leading to the creation of an inter-jurisdictional institution or regime, and *penetration* or *imposition* can lead to policy transfer as the actions of one jurisdiction force another to develop comparable policies.

While these categories are helpful in locating pathways of information sharing and learning, it is necessary to differentiate between policy transfer, which focuses on the process of learning, and convergence or similarity in policy responses, which is a possible effect of transfer (Evans, 2009). The distinction between the two concepts highlights a weakness of the policy transfer approach; scholars frequently fail to distinguish between situations where information from one jurisdiction is used in the policy process of another, and when that transfer of information actually leads to policy adoption in the second jurisdiction. Bureaucrats, interest groups or politicians may put forward a policy from another jurisdiction for consideration in the policy process, but that does not necessarily mean it will be adopted. There is an obvious difference between the transfer of knowledge or ideas and the transfer of a policy (Radaelli, 2005; Stone, 2012).

Dolowitz and Marsh (2000) argue that failure to adopt policies borrowed from other jurisdictions can result from: *uninformed transfer*, where the borrowing jurisdiction has insufficient information to properly establish their own version of the policy; *incomplete transfer*, where key elements of the policy are not adopted; and *inappropriate transfer*, where

important differences between the original jurisdiction and the borrowing jurisdiction have been ignored during the transfer process. These categories are useful in understanding the success or failure of the actual transfer process. However, James & Lodge (2003) note it is difficult to determine why a policy was ultimately unsuccessful without looking at the broader policy-making and implementation process.

Learning about policy in another jurisdiction could also cause policy makers to avoid a similar course of action at home, which Dolowitz and Marsh refer to as a negative lesson (2000). Negative lessons from another jurisdiction could tell policy-makers that the policy was ineffective, that it could become politically controversial or that it would be a poor fit in their own jurisdiction. While negative lessons do not receive as much attention as situations where transfer leads to policy adoption, they are an important aspect of cross-jurisdictional information sharing and learning which needs to be included in the study of policy transfer.

Understanding how policy transfer influences policy development is enhanced by distinguishing between the different aspects or parts of policy on which cross-jurisdictional learning can occur. Bennett (1991b) asserts that policies can become more similar with regard to goals, content, instruments, outcomes and implementation styles (administrative and organizational structures and processes). Dolowitz and Marsh (2000) produce a similar list of policy components on which transfer can occur but extend the framework to cover ideas and values. Stone (2004) refers to ideas and values as elements of “soft transfer” which frequently occur through international non-government organizations and advocacy groups which operate across jurisdictions.

The insights of the policy transfer literature identify several questions that the second line of inquiry investigates (Figure 2). These questions are: what actors were involved in policy transfer, what did they use information about policies in other jurisdictions for, how did they use this information, what pathways were salient, did transfer fail or lead to negative lessons, and on what parts of policy did transfer and learning occur.

Figure 2: The process of collaboration and policy transfer

| What actors were involved: | What was information was used for? | How information was used? | What pathways were salient? | Did transfer fail or lead to negative-lessons? | On what parts of policy did transfer occur? |
|----------------------------|------------------------------------|---------------------------|-----------------------------|--|--|
| Politicians | Agenda setting | Copy | Transfer | Uniformed | Goals |
| Bureaucrats | Political pressure | Emulation | Elite-networking | Incomplete | Instruments (cap-and-trade, VES, LCFS, carbon tax) |
| Interest groups | Exemplars-short cut | Hybrid | Harmonization | Inappropriate | Content |
| Media | Rational process | Inspiration | Integration | Negative-lessons | Implementation styles |
| Experts | Justify position | Benchmarking | | | Ideas/Values |

How did policy transfer influence the selection of provincial policy instruments?

After examining the process of policy transfer, the study explores the influence that collaboration and cross-jurisdictional learning had on provincial policy responses. Provinces pursuing climate change had the capacity to influence each other’s policy development given that they were all operating in the same Canadian federal system and a shared national economy. The inter-jurisdictional dynamic most commonly associated with federal systems of government is a race to the bottom (Harrison, 2006), where competition to attract or retain business and economic activity among jurisdictions results in a movement towards fewer or less restrictive

regulations. However a race to the top, where a government adopts new policies due to the reputational repercussions of being left behind on an issue, can also occur. This process has been referred to as policy band-wagoning where an increasing number of jurisdictions adopt a policy building a sense of momentum which in turn contributes to its further spread (Ikenberry, 1990).

A provincial race to the top frequently involves cross-jurisdictional flow of policy information as each province looks to counterparts for lessons and models that can be emulated. Despite few studies of policy diffusion in Canada (Poehl, 1976; Lutz, 1989), the dynamics of policy transfer have been visible in Canada's federal system. The most prominent example is the country's public health care system which found its nascence in Saskatchewan under Premier Tommy Douglas before being adopted nationally. Cross-jurisdiction learning and emulation is frequently identified as an important dynamic which characterizes provincial policy making in Canada (Harrison, 2006; Atkinson, Beland, Marchildon, McNutt, Phillips & Rasmussen, 2013).

The influence of California is essential to explaining the selection of provincial policy instruments, given the important role the state played in leading the subnational climate change movement in North America. Harrison (2012b) outlines three ways in which California influenced subnational jurisdictions in North America on climate change policy, which spilled across the Canadian border and influenced provincial policy responses. First, California has developed innovative climate change policies which other subnational jurisdictions can emulate, including cap-and-trade and new emission standards for vehicles and fuel. Second, California's leadership has reduced the risk for those looking to take similar action but are concerned about the economic and political consequences of regulating unilaterally. Finally, California has helped coordinate the response of subnational governments, through ventures like the WCI, which

further reduces their risk of being placed at an economic disadvantage and can even create efficiencies in reducing emissions by pooling individual efforts.

Harrison's discussion of subnational climate change policy draws on Vogel (1995) who coined the term "the California effect" to explain the state's ability to influence environmental policy in North America. Vogel suggests that California's influence is felt across the continent in two primary ways. First, because the state represents such a large market it can set environmental standards for products, such as vehicles or fuel, with which industry across the continent are obliged to comply. Second, when California actively promotes environmental regulation outside its borders, as Governor Schwarzenegger did on climate change, it can influence other subnational jurisdictions by signing agreements that commit them to new policies.

Hoberg (1991) develops a similar framework to understand the unique influence that the US exerts on Canadian environmental policy. While this framework is developed using examples at the federal level it can be useful in understanding the influence California had on Canadian provinces. Hoberg argues that Canadian environmental policy is influenced by the US in two ways. First, policy is affected by the imposition of costs or externalities emerging from south of the border, reflecting a process of penetration (Bennett, 1991b). This occurs when US policy decisions or activities directly impact Canada creating the need for a response. For example, after years of seeing the number of smog-days rise, much of which was the result of industrial production from the Ohio valley in the US, Ontario took action to reduce coal pollution in the southern part of the province.

Costs can also be indirectly imposed on Canadian provinces as a result of economic integration and the sheer size of the US economy. In an integrated North American economy,

Canadian governments are frequently affected by the decisions of state and national governments in the US and are essentially forced to adopt certain policies to mirror or respond to those of their larger partners. The Harper Conservative government has been vocal about its decision to move in lock-step with US climate change policy so that the Canadian economy will not be placed at a disadvantage. In the case of vehicle emissions standards, Canada is not a large enough market to adopt policies out of sync with the US. When its southern neighbour announced new standards, the Canadian government essentially had to follow suit because the costs of doing otherwise would be too great.

Hoberg suggests Canadian policy makers also borrow innovative policies developed in the US in a process of emulation or policy transfer. This process can be elite-driven, where policy-makers in government borrow ideas they believe will work well, or activist driven, where organized interests use American policies as examples to place pressure on policy-makers in Canada. According to Hoberg the transfer of information about policy occurs through three pathways: the ubiquity of American media in Canada, the dominance of American scientific knowledge and the exchange of ideas and information in policy networks which contain actors in both the US and Canada.

While California played an important role in provincial collaboration, it was not the only US state with which Canadian provinces cooperated and which had the capacity to influence their policy responses. Largely due to the north-south flow of economic activity and energy infrastructure, such as electrical transmission lines or pipelines, provinces also jumped on board other regional initiatives in the US. BC and California joined with Washington and Oregon to form the Pacific Coast Collaborative (PCC) which expanded collaboration beyond cap-and-trade to include initiatives like greening sea ports and developing infrastructure for a hydrogen

highway stretching along the coast. Manitoba and Quebec participated in regional efforts in the American Midwest and Northeast respectively, while Ontario worked informally with policy makers in both those regions. One member of an environmental group that worked regionally, in multiple provinces and states, noted that provinces and states which share geography are often well-versed in each other's legislative and regulatory regimes because of their trade, and those relationships both demand and enable collaboration on climate change.

The discussion above demonstrates that other subnational jurisdictions can influence provincial policy makers' decisions in two ways: by providing an example or model which policy makers look to emulate or learn from and by changing policy makers' calculation of the economic and political costs or risks of a specific course action. The ability of each jurisdiction to influence its partners depends on their size, economic clout and capacity to develop innovative policies. In the case of California, cross-jurisdictional influence frequently involves a one-way process of penetration from the state to a smaller jurisdiction. In Canada, Ontario, Quebec and Alberta are particularly influential in the Canadian federation while BC often leads on environmental issues which can be distinguished from a small province like Manitoba that has less capacity to unilaterally affect policy beyond its borders.

Limitations of the policy transfer approach

The key feature of policy transfer which makes it distinct from other forms of policy making is its focus on cross-jurisdictional learning (Evans, 2009). Because policy transfer focuses specifically on the transfer of policy knowledge from one jurisdiction to another, an important limitation of the approach is that it does not advance a comprehensive theory of policy change (James & Lodge, 2003). Policy transfer has difficulty explaining policy change for three

reasons: it does not distinguish between the transfer of information and the transfer of policy, it focuses primarily on cross-jurisdictional learning and does not account for other influences collaboration can have on policy, and it does not consider local factors which can also determine policy.

Policy transfer focuses on the process by which knowledge about policy in one jurisdiction is used in another. But, as noted previously in this chapter, there are many steps between information sharing and the adoption of policy. The framework for this study outlines the different phases in the transfer process which lead from information sharing to the adoption of a policy developed in one jurisdiction in another. These phases include: initial collaboration and recognition of exemplars, exploration of policy instrument options, initial decision and announcements, and establishment of actual programs. The five provincial case studies are analyzed according to these phases to structure the narrative for each and increase the explanatory capacity of transfer analysis.

This chapter has demonstrated that there are a wide range of motivations for engaging in collaboration and influences it can have on policy; however, policy transfer focuses primarily on the process of learning. In addition to studying the process of policy transfer, or how it occurred, the analytical framework for this study asks what motivated provinces to engage in collaboration and what effect did it have on the selection of instruments. This expands analysis beyond sharing of information across jurisdictions to include the economic and political benefits provinces received by working with each other and US states.

Recent critiques of policy transfer argue that even though the approach focuses on how a jurisdiction learns from external sources, the local circumstances and dynamics in that

jurisdiction are essential to explaining policy adoption (McCann & Ward, 2012). To address these concerns terms like policy assemblages (McCann & Ward, 2012), policy mimesis (Massey, 2009) and policy translation (Stone, 2012) have been coined in an effort to better reflect the complexity, unpredictability and fluidity of the transfer process and to account for local variation. Evans (2009) provides a more practical solution to this dilemma by suggesting that policy transfer can be used to develop an empirically-grounded account of policy decisions if combined with analysis of other relevant factors.

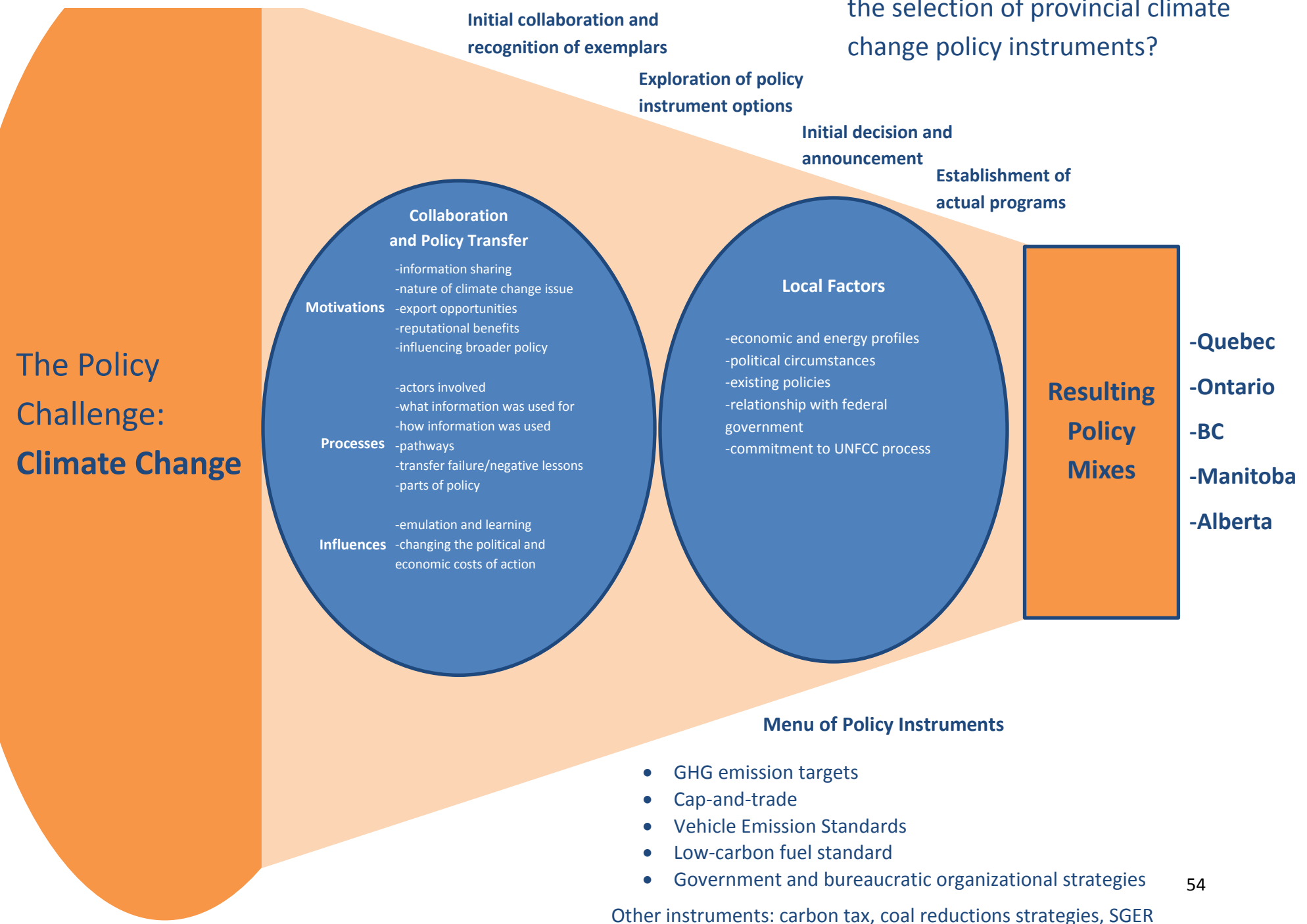
The analytical framework developed for this project adopts this approach by exploring cross-jurisdictional influences and flows of policy information as well as the local circumstances which led to a different policy mix in each province. This does not require that one factor be chosen over another, but rather stipulates the need for fine-grained analysis of the relative weight of contending factors and how they interacted to develop a comprehensive picture and explanation of provincial decisions surrounding the selection of policy instruments.

Bringing the framework together

Figure 3 integrates the insights that emerged from the literature review in Chapter 2 and the discussion from this chapter into a comprehensive analytical framework. The framework outlines the different phases of the transfer process leading to the resulting policy mix in each province. The left-hand circle of the framework guides the inquiry of collaboration and transfer by outlining possible motivations for engaging in collaboration, the different aspects of the transfer process, and the ways in which collaboration and information sharing can influence provincial instrument selection. The right-hand circle outlines the local factors which could influence the selection of policy instruments in each province, including regional economic and

Figure 3: An analytical framework for explaining provincial climate change policy instrument selection

RESEARCH QUESTION: What explains the selection of provincial climate change policy instruments?



energy profiles, political factors, existing policy legacies, relations with the federal government and commitment to the international process.⁵ The resulting framework supports and guides the analysis of the project, and provides the foundation to answer the research question. With the framework in place, Chapter 4 turns to this study's research design and the methodology employed to gather and analyze data.

⁵ As discussed in Chapter 2, provincial commitment to the UNFCCC process was not covered by the literature. It was identified as a salient local variable by the researcher and confirmed through the inductive coding process (see the Data Analysis section in Chapter 4).

CHAPTER 4

DESIGNING A COMPARATIVE CASE STUDY OF PROVINCIAL POLICY INSTRUMENT MIXES

This study employed a comparative case study approach to answer the research questions, focusing on five provinces that took action on climate change and looked to develop innovative policies and programs: BC, Alberta, Manitoba, Ontario and Quebec. At their essence, comparative studies of public policy look at why governments choose different courses of action, including not acting at all (Heidenheimer, Hecló & Addams, 1990). Following this tradition, this study sought to determine whether and to what extent provincial climate change policies are similar or different, including goals, instruments and administrative institutions, and venture explanations as to why this was the case.

The chapter begins by discussing why the comparative case study approach was chosen, and the strengths and limitations it brings to the study of provincial policy instruments, as well as how the individual cases were selected. Then the chapter outlines the two research methods, document review and elite interviews, that this study employs, including how interview subjects were identified and selected. The chapter concludes by outlining the specific techniques that were used in data collection and analysis to provide a detailed picture of how the study was conducted.

Choosing Cases

Comparative policy studies are valuable for at least three reasons: explaining policy choices by studying policy outcomes in different contexts, identifying patterns or trends which

contribute to building theory and identifying anomalies which can be studied to provide more information about the nature of the policies under investigation (Gupta, 2012). The primary purpose of this study is to explain the choice of climate change instruments in Canadian provinces and produce more information about those policies. Its goals are to contribute to the literature on Canadian and subnational climate change policy development, inform discussions and debates about climate change policy in Canada, and provide lessons for policy makers in jurisdictions seeking to take action on climate change in the future.

Among the methods used to study public policy, the comparative case study approach represents a middle ground between single cases studies and large-N studies which include many cases and employ quantitative tools and statistical analysis. A comparative approach allows for some generalization through identification of patterns or tendencies in policy development which is not possible through analysis of a single case. The approach can also provide in-depth understanding of individual cases, including addressing outliers or anomalous data, which does not occur in large N-studies using quantitative statistical tools for analysis (Van der Heijden, 2014).

The comparative case study approach provides the appropriate balance of in-depth analysis and generalizability of findings for this study which seeks to generate knowledge of climate change policy development in each case but also create findings that are relevant to policy making and debates in other Canadian provinces and at the federal level. Furthermore, with only 10 provinces and 3 territories, it would be difficult to undertake a large-N statistical study of subnational cases in Canada. Thus, BC, Alberta, Manitoba, Ontario and Quebec were chosen as case studies.

The five cases were selected to ensure variation on the factors identified in the analytical framework, such as economic and emission profiles, political circumstances and levels of collaboration and information sharing. This variation provides the means to test whether these factors (the independent variables) were influential on provincial policy mixes (the dependent variable). A limitation of the research project is that it does not include every Canadian province and territory, even though they have all responded to climate change in some capacity. The study does not cover all Canadian provinces and territories for three reasons. First, including more cases would decrease the amount of detail and analysis that could be undertaken in each. There are several distinct climate change policies where policy transfer and information from other jurisdictions could have been salient; studying whether and how they developed in every jurisdiction would sacrifice the level of detail in each province. Second, the time and resource restrictions of the project made it infeasible to undertake the extensive document review required for the study and travel to every province and territory to conduct interviews. Finally, the four WCI provinces were the most likely to engage in policy transfer and collaboration because they were early actors among Canadian provinces, at the vanguard of experimenting with innovative climate change policy. Alberta took early action and developed innovative policy but did not engage widely in collaboration – it represents a counterfactual which allows for fruitful comparisons and increases the relevance of the study to Canadian policy debates and policy making.

While acknowledging that each province has a unique experience, the cases are representative of the range of policy responses among Canadian provinces making cautious generalization of certain findings possible. Saskatchewan and Newfoundland and Labrador's situations are similar to those of Alberta because their response to climate change was

conditioned by the desire to protect the competitiveness of their fossil-fuel based energy sector and allow the industry to grow. Other Atlantic provinces have primarily focused on improving energy efficiency, shutting down coal-fired electricity plants and promoting renewable energy development, like Manitoba and Ontario. The Northwest Territories has also focused on renewables development while the Yukon has only recently established a climate change plan.⁶ All three territories have focused on adapting and responding to the impacts of climate change. That said, this study does not provide an exhaustive analysis of the provincial climate change policies developed in Canada and caution must be taken in generalizing any findings to other provinces. The generalizability of findings requires more care when looking at subnational jurisdictions outside Canada given the unique features of Canada's federal system, political culture, geographic location and economy.

Representation of different provincial policy responses also ensures the study provides practical lessons for policy makers in provinces across the country. For example, any findings or lessons that emerged from a study that included only provinces that rely on hydro-generation for electricity, like BC, Quebec and Manitoba, which have relatively low per capita emissions and the main source of emissions is transportation, would not necessarily be relevant or useful to fossil-fuel-dependent provinces where emissions largely come from electricity generation or oil and gas production. The inclusion of Alberta ensures the study produces information that is valuable to provinces with similar fossil-fuel-based economies.

Given the popularity of multiple case study analysis, it is important to distinguish between rigorously designed comparative analysis that seeks to establish causation by

⁶ It should also be noted the Atlantic Provinces and the territories combined only make up about 7% of Canadian GHG emissions (Environment Canada [EC], 2012).

systematically specifying and eliminating variables (see Levi-Faur, 2006 for an example) and a study like this which involves more loose or informal comparison (Rihoux & Grimm, 2006). A more informal comparison may seem to suggest less methodological rigour; however, Hall (2004) argues that comparative case studies are frequently more valuable for their rich description and investigation of micro-level causal processes than their ability to identify a single casual factor by attempting to eliminate other variables. Furthermore, because social phenomena like policy development result from the complex interaction of multiple factors, fine-grained analysis of the micro-level processes, decisions and significant events within a specific case can also be effective in making assertions about causation (George & Bennett, 2005).

An important goal of this research project is to produce findings that can contribute to climate change policy debates and provide practical lessons for policy makers. As such, rather than devoting all the project's efforts to employing a systematic approach, which could increase the strength with which causal claims can be made, the study seeks to make generalized statements about causation that are well-supported but also designed to improve understanding and explanation of provincial climate change policy development and contribute knowledge "to the policy process" as well as knowledge "of the process" (Lasswell, 1951).

The variables that have typically been accepted as the most important in explaining climate change policy development at the provincial level are domestic factors such as local economies. The presence of policy transfer and the influence of other jurisdictions in provincial policy development represent another factor which has not been significantly addressed in the literature. The potential influence of information from other jurisdictions on provincial climate change policy creates an interesting methodological challenge known as Galton's Problem where the linkages between policy adoptions in different jurisdictions effectively limit the number of

independent observations of a causal relationship (Bennett, 1997). As an example, Manitoba and Quebec both pursued a cap-and-trade system, which could be explained by their desire to export clean energy credits and offsets to other markets whereas Alberta developed its own approach. However, since both jurisdictions were part of WCI, they developed their systems as part of a collaborative process and were keenly aware of the policies emerging in the other. This makes it more difficult to assert that there were two independent cases where economic factors caused the specific policy.

The presence of information from other jurisdictions in local policy processes does not necessarily negate the role of other factors - even if transfer between two jurisdictions occurred, it could be partially driven by economic or political motives - but provides a more complete picture of policy development. A comparative case study of Canadian provinces allows for fine-grained analysis of collaboration and policy transfer to determine its relative weight compared to the other contending economic and political factors, and how policy transfer may have interacted with them, to help explain policy development.

Research Methods: Document Review and Elite Interviews

The study employs two qualitative research strategies to increase the validity and reliability of the findings. First, a detailed review of the relevant academic literature and primary policy documents was undertaken, including government websites, media releases, strategy documents, public reports, communication documents (brochures, pamphlets, fact sheets) and media stories. In addition, material produced through regional agreements and organizations, including media releases and policy documents were also examined. Finally, documents from non-government sources - including think tanks, policy research firms, and environmental and

business interest groups - were reviewed. To ensure consistency in the analysis, when a document was found that related to one province a search was conducted for similar documents in other provinces.

Second, 63 elite interviews were conducted with climate change policy makers in Canadian provinces and the state of California. Elite interviews are a form of purposeful sampling, where the selection of cases is designed to serve the needs of the study (Patton, 2002). Elite interviews can serve at least four research purposes: corroborating what has been established from other sources, establishing what a certain set of people think, making inferences about a larger population's characteristics and opinions, and helping reconstruct an event (Tansey, 2007). The objective of the interviews process were to develop accounts of climate change policy development in the five provinces with a specific focus on establishing what those involved or knowledgeable about developing policy thought about the role of collaboration and policy transfer.

A key question when using elite interviews is: what constitutes an elite? Elites are often viewed as individuals who occupy positions of power, authority and status within society. However, interview subjects that can provide the information and knowledge needed to answer the research question cannot be found by looking solely at position titles or selecting names at the top of a hierarchical organizational chart. An interview subject's elite status could come from a variety of factors including their length of time in a position or organization, their education and training or their proximity to key decisions makers giving them unique access to important information. The general rule followed for this study was that a person was deemed elite if they were directly involved in climate change policy development or could be considered to have some form of unique or expert knowledge on the topic.

The research project made a concerted effort to target policy makers who actually made key decisions and exercised significant power, authority or influence in the climate change policy-making process, or what Zuckerman refers to as ultra-elites (1972). Because of the small number of individuals occupying these positions and the difficulty in accessing them, the study also targeted actors that were close to these key decision makers, such as managers and policy analysts in provincial public services or interest groups. These individuals exercised influence on primary decision makers by providing advice and were also keenly aware of the motivations and thought-processes of ultra-elites. While in most cases these individuals were not directly responsible for policy decisions, they had specific knowledge of key decisions and events which made them valuable sources of information. In several cases these individuals also facilitated contact with senior bureaucratic and political decision makers which became crucial sources of information for the study.

One strategy used to determine who were the important players and repositories of knowledge on provincial climate change policies was to ask those involved in the area. Many participants were identified using the researcher's existing contacts or through the document review. However, the majority of interview subjects were identified using a snowball or chain sampling technique. This approach relied on interview subjects to recommend other individuals that would provide useful information and perspective on the research topic (Patton, 2002). This strategy allowed the researcher to leverage the expertise and knowledge of those involved in climate change policy development to determine the most appropriate candidates for the study.

Another advantage of the snowball technique was that many of the people who were involved in climate change policy making during the period of time covered by the study were no longer active in that area, due to retirement or moving to a new position. It was originally

assumed that these individuals should be targeted first to make connections and establish a level of trust, which would facilitate access to actors who were still involved in climate change policy and might be more reluctant to participate in the study. However, there were few problems gaining access to those actively working on climate change and in many cases it was more difficult to contact people no longer involved in the file. Frequently the initial interviews of active policy makers helped in identifying and gaining access to those no longer working in the field. Engaging individuals who were not currently working on the file provided important information about the motivations behind important decisions and interesting developments because they were less guarded in their responses and often felt more comfortable talking about controversial topics because they did not have to fear political or professional repercussions.

The drawback of using elite interviews as the primary research method is that formal sampling techniques were not used to achieve a representative segment of a population. For example, survey research frequently involves carefully selecting a randomized sample of a population which allows for generalization of their responses to the entire population with a high degree of confidence. While elite interviews may be used to make inferences about what a group of individuals think, the capacity to make formal generalizations does not exist. For example, interviews with a few members of a provincial legislature can clearly not be used to predict how all members would vote on an issue.

Despite the absence of a formal sampling process, the selection of interview subjects did consider representation from each province. The process was not designed to ensure equity or proportionality (a formula based on a province's population or GHG emissions) in the number of interviews conducted in each province. Rather, the selection of cases was based on the number of interviews required to fully explore the research questions in each jurisdiction. As a result, the

number of interviews conducted in each jurisdiction varied based on the scale and complexity of the policy effort in each province, the amount of relevant information coming from individual interviews and the number of suitable interview candidates that could be found.

To ensure a variety of perspectives on the policy-making process in each province, the study sought four major groups: elected officials, bureaucratic officials, and non-government pressure groups which were either environmentally-oriented or industry-oriented. Bureaucratic officials working as provincial civil servants were the largest source of interview subjects. This group included policy analysts, mid-level managers and senior executives. A handful of elected officials, including MLAs and senior cabinet members, were interviewed. Finally, a small number of people belonging to environmentally-oriented and industry-oriented pressure groups, which included experts employed in think tanks or policy research institutions as well as advocacy groups, were also included in the study. In general, government officials were interviewed first because their contact information was often publicly available and easy to access. These interviews provided a general account of each province's climate change policies and the foundation of the data that was collected. These officials were instrumental in identifying and accessing politicians and members of environmental and business groups which provided different accounts and perspectives of significant or controversial events to ensure that the narrative of climate change policy development was not one-dimensional or biased.

Finally, cases were selected to develop fully and test categories, theories or information which emerged out of the analysis, reflecting a theoretical sampling approach (Coyne, 1997). For example, during the course of initial interviews it became clear that California's experience and leadership played a key role in the development of climate change policies and programs in several of the Canadian provinces that were studied. Therefore, several interviews with

California policy makers with knowledge of the state's influence on Canadian provinces were conducted to corroborate this conclusion and gain more information about the state's role.

The interview questions were designed to generate information and the subjects' perspective on the three primary research questions of the study.⁷ Semi-structured interviews were used to ensure a balance between covering relevant topics and allowing the respondent sufficient flexibility to explore new areas which could enrich the study (Burnham, Gilland, Grant, & Layton-Henry, 2004). Separate sets of questions were designed for each classification of interview subject: public servants, politicians, environmentally-oriented groups and business-oriented groups. The differences in each set of questions were minimal and largely consisted of different phrasing to reflect the group's role in the policy process. In addition, a separate set of questions was developed for US officials reflecting their unique role in the process of provincial climate change policy making.

Semi-structured questions are well-suited to interviewing elites because in many cases the interview subject has as much knowledge and expertise on the subject as the researcher and is in many ways teaching them about the topic. This was particularly true at the onset of the interview process when discussions tended to take on a more exploratory tone. It was also prevalent during interviews with ultra-elites who had been directly involved in key decisions and had clear ideas about what the important elements of the topic were. In general, the interviews ranged from a straightforward answer and response to the questions in the order they were originally developed, to a wide-ranging discussion moving back and forth between different aspects of the research

⁷ See Appendix A for an interview guide containing a list of interview questions and chapter 3 for the analytical framework.

topic, where the researcher checked off the questions as it was determined they had been sufficiently answered.

Data collection

The document review process began when the research proposal was approved by the supervisory committee at the end of 2012 and continued until the end of the project. Documents were collected primarily using the internet including government, public agency and non-government organization websites and news sites. In several cases interview subjects were helpful in identifying and providing older public documents that were not on the internet. The interview process began in September 2013 and concluded in December 2014. An initial review of the documents and academic literature related to each province was completed, and an overview or summary document prepared before interviews are conducted in that jurisdiction. However, the interview process was designed to overlap with the document review to ensure that new data uncovered by one stream of inquiry could be supported and elaborated on by the second. This overlap also improved efficiency as there was a significant amount of time between interviews where document review could be conducted.

A first round of face-to-face interviews was conducted in each province before moving on to the next jurisdiction. This strategy was designed to use time and project resources efficiently by limiting the amount of travel. In each province, the initial interviews produced a second group of interviews that were conducted by phone or Skype. Interviews were conducted in Manitoba and BC first to take advantage of the researcher's existing contacts. The initial plan was to test and possibly adapt the research instrument after a handful of interviews were conducted in BC and Manitoba. However, the instrument worked quite well and did not require

significant modification. Interview subjects in BC and Manitoba did assist in identifying and accessing candidates in Alberta, Ontario and Quebec as well as in their own provinces.

It was anticipated that five to six interviews in each jurisdiction would provide enough data to fully address the research questions. However, because the response to the snowball technique was positive, the interview process continued. It ensured complete saturation of the topic and further probes into specific areas where collaboration and policy transfer appeared to be present. The interview process was concluded when interview subjects began to provide very little new information on the research topic. Table 2 shows the breakdown of interviews by the jurisdiction where subjects were located or were most familiar with, and the position they held in the policy making process.

Table 2: Interviews by province and position

| | Public servant | Member of environmental interest group | Member of business/industry group | Politician | Total |
|------------|----------------|--|-----------------------------------|------------|-------|
| BC | 8 | 2 | 3 | 2 | 15 |
| Alberta | 7 | 3 | 1 | 0 | 11 |
| Manitoba | 6 | 2 | 1 | 1 | 10 |
| Ontario | 9 | 5 | 1 | 0 | 15 |
| Quebec | 5 | 2 | 1 | 1 | 9 |
| California | 2 | 1 | 0 | 0 | 3 |
| Total | 37 | 15 | 7 | 4 | 63 |

In several cases an interview subject had knowledge of climate change policy development in more than one jurisdiction, but to avoid confusion they were classified in the jurisdiction in which they were located. There were also a handful of cases where the interview subject had held more than one position in the policy-making process; when this occurred they were classified according to the position in which they spent the most time during the period covered by the study. Follow-up interviews were conducted with five interview subjects to clarify points or corroborate new information that was uncovered during the interview process. These were not categorized as separate interviews but simply a continuation of the first conversation with the subject.

Interviews were conducted in accordance with standard university ethics procedures. Ethics approval for the project was attained in early 2013 and modification was approved a few months later to allow participants to provide private contact information of potential research subjects with the prospective subject's approval. A second modification was approved in the fall of 2014 to allow for interviews in California, as the original approval had not included interviews outside of Canada. Written consent was obtained from all subjects prior to or at the time of the interview and confidentiality was maintained at all times. Interview subjects were given the choice of selecting the interview location. Most interviews lasted 45 minutes to an hour; however, a handful of interview subjects were under tight time restrictions because of busy schedules and their interviews lasted closer to 30 minutes. In one or two cases the interview subject had time and was engaged, so the interview was allowed to last beyond an hour.

An audio recorder was used whenever consent was provided by the subject and the conversation was transcribed. In several cases the interview subject did not consent to being recorded and detailed notes were taken during the interview. There were no situations where

interview subjects did not want notes to be taken. When notes were taken during the interview, they were carefully rewritten immediately upon completion of the interview to ensure as much information as possible would be captured and recorded as clearly and as accurately as possible.

Data analysis

Even though the study does not adopt a formal comparative case study methodology, it is valuable to explain the strategy used to relate data to the analytical framework, answer the research questions and draw conclusions. The strategy for analyzing data relied on three types or stages of observations outlined by Blatter and Markus (2014): comprehensive storylines, smoking gun observations and confessions. A *comprehensive storyline* differentiates major sequences of the policy development process and identifies critical events and decisions which shape the process and lead to specific outcomes. *Smoking gun observations* are developed through more in-depth analysis of the critical events and decisions identified in the narrative to verify their importance and elaborate how they operated. *Confessions* provide information about the motivations, strategies and understandings of key actors which reinforce that the gun is indeed smoking. Of course, confessions from major players in the policy process should not be accepted at face value but rather critically analyzed and combined with other accounts to develop a balanced assessment of their motivations and strategies. The three stages of observations provided a general organizing framework for the analysis, rather than a process followed systematically. Comprehensive storylines, smoking guns and confessions were used to develop a narrative of climate change policy development for each province, as well as an overarching narrative of the provincial experience in Canada.

Thematic analysis, a process of encoding themes or patterns found in qualitative information to organize, describe and interpret phenomena (Boyatzis, 1998), was undertaken using Nvivo software to analyze the data and generate findings and conclusions. Thematic analysis is distinct from content analysis in that it does not count or use quantitative analysis of the incidences of a specific word or phrase in a text (Elo & Kyngas, 2008) but groups qualitative data based on similarity in topics, ideas, opinions or other categories which assist in drawing conclusions and answering the research question. Analysis began during the later stages of the data collection phase and continued until the end of the project. Due to project budget constraints, employing multiple coders, which would allow for comparison of results and increase validity, was not possible. However, multiple rounds of coding were employed by the researcher to ensure data was not overlooked and to verify initial findings.

The analytical framework developed in Chapter 3 guided the analysis; variables identified in the framework created themes or nodes which organized the data. Initial themes included economic factors, energy and emission profiles, political factors, federal relations, learning, actors and personal relationships, processes of information sharing, influences of collaboration and transfer.⁸ Data was also coded according to the different policy instruments, including GHG targets, cap-and-trade, vehicle emissions, LCFS and administrative strategies. As the coding process continued, sub-categories of these broader themes were created to further refine the analysis. During the coding process new nodes were created when a theme emerged that could be added to the analytical framework.⁹ This inductive coding process also ensured that themes and patterns which were related to the research questions, or provincial climate change policy in

⁸ This list is not exhaustive but demonstrates how the analytical framework structured the data analysis and coding process.

⁹ See Chapter 2, page 27 and Chapter 3, p. 56.

general, but did not fit in the framework could be captured. An example of this type of theme was the lessons for policy makers outlined in Chapter 11 that were unrelated to collaboration and policy transfer.

The findings emerging from the interviews and document review were combined to fully answer the research questions and corroborate the evidence they produce independently. For example, a government's actual motivation behind a decision may be quite different from the one it conveys in public documents and confidential interviews with key policy makers are more likely to uncover this type of information. In other cases interview subjects provided vague references to events or dates which needed to be verified and fleshed out through review of formal documents and media reports.

All interviews were coded according to the variables that were identified by the analytical framework and those emerging inductively from the analysis. Semi-structured interviews, allowing the flexibility to cover topics not anticipated by the researcher, resulted in a wider range of topics, themes and patterns than in the document review and the inductive coding approach was necessary to ensure that these were uncovered and incorporated into the study or identified as areas for future research. One example of this was the discovery that although Alberta did not participate in WCI, it engaged in collaboration with other oil and gas producing jurisdictions such as Saskatchewan, which was not covered by the study but represented an important finding that could point to future areas of research.

Policy documents that specifically outlined provincial governments' positions and plans on climate change policy were coded using the same process as the interviews. These documents included provincial climate change strategies, progress reports, and budget and throne speeches.

Other documents like media releases, auditor general reports, expert analysis from think tanks and media stories were used to support analysis, verify findings and enhance understanding, but did not require formal coding. This decision was made to ensure the analysis was flexible and could respond quickly to new sources of information without being slowed by formal organization and coding processes.

Conclusion

This chapter provides an outline of the methodological approach of the study and how it was designed. A comparative case study approach was adopted to allow for fine-grained analysis of each case while increasing the generalizability of the findings. The cases were selected to ensure variation on the different variables outlined in the analytical framework and provide analysis and lessons that are applicable to the range of provincial experiences. Document review and elite interviews with a range of climate change policy makers were conducted in the five provincial cases studies (chapters 5-9) to provide data on their policy response which is then analyzed using the analytical framework to explain their selection of policy instruments.

CHAPTER 5

HOW QUEBEC BECAME CANADA'S CLIMATE CHANGE CHAMPION

As climate change made its way to the top of Canadian provincial agendas in the mid-2000s, many were critical of what they perceived as intransigence by the federal government on the issue and looked to fill the void left by its inaction; chief among these was the province of Quebec. As Canada stepped away from Kyoto and the international climate change negotiations, Quebec was firm in its resolve to support and participate in the United Nations Framework Convention on Climate Change (UNFCCC). The difference in positions led to fractured relations between the two levels of government as high profile UN meetings often became a venue to trade barbs and cast shame between provincial and federal officials. In pursuing its own course on climate change, Quebec established aggressive GHG targets and adopted several leading policies in North America, including becoming the only jurisdiction to join California in a regional cap-and-trade system. These actions led the province to be branded Canada's climate change champion (Newman & Howlett, 2008).

With its large hydro resources Quebec was well-positioned to reduce its emissions and benefit economically from the shift to a low-carbon economy in North America, which partly explains its desire to pursue policies like cap-and-trade. However, Quebec's commitment to the UN climate change process, driven by a strong environmental consciousness in the province as well as the desire to distinguish its position from the more modest approach of the Canadian federal government on the national and international stage, led the province to set aggressive GHG targets and push forward with its agenda of subnational collaboration, adopting new policy instruments when other provinces backed away.

The development of climate change policy in Quebec

Quebec has a history of leadership on international atmospheric protection as the Montreal Protocol, the agreement which limited global chlorofluorocarbon (CFC) emissions, was negotiated and signed in the province in the 1980s. Quebec was engaged in the UNFCCC process and negotiations around climate change, which began at the 1992 Earth Summit in Rio; was a supporter of the 1997 Kyoto agreement, which set GHG emission reduction targets for participating countries; and continued to be a presence at the Conference of Parties (COP), the annual meeting of the international process. Quebec also has a history of subnational engagement on climate change as it participated in the first regional plan in North America, developed by the New England Governors and Eastern Canadian Premiers (NEG-ECP) in 2001. The regional initiative set GHG reduction targets for the entire region and committed to sharing information and expertise among participants to facilitate policy development.

Quebec's involvement in international and regional institutions is partly a result of the strong environmental consciousness that exists in the province and public support for climate change action (Lachapelle, et al., 2010). As one member of an advocacy group operating in the province stated:

“Quebec society has been fairly progressive on the environment and there has been a society-wide response to pressing environmental issues. So the government had the political space to move forward [on climate change]. Once you get up to the higher levels of government you do not necessarily see as many barriers as you would in other jurisdictions because of the political space that exists”.

Bi-partisan support for climate change in the province made it easier for governments in Quebec to adopt an aggressive stance on climate change compared to provinces like Ontario, BC or Manitoba where the government had to overcome strong opposition in certain elements of the province and spend political capital building the support to take action.

Like most issues in Quebec which involve intergovernmental relations, climate change was also characterized by the province's unique status in the Canadian federation, including continued struggles with the national government over constitutional jurisdiction, regional interests and the desire for more autonomy. Quebec was eager to participate in international forums and collaborate with other jurisdictions on climate change because it provided an opportunity for the province to distinguish itself from the federal government on the international stage and helped put its interests in national debates forward.¹⁰ For example in the early 2000s, even though the separatist Parti Quebecois government, whose primary platform is gaining political independence for the province, supported the international Kyoto agreement, it rejected the federal Liberals' plan for meeting Canada's commitments. The Quebec government called for provincial autonomy in setting targets and implementing actions (Quebec Government, 2002) and produced its own climate change strategy.

Other factors played into Quebec's decision to become a leader on climate change. The province was well-positioned to take action on the file. It already had a relatively low GHG emission profile and could benefit economically from the movement towards a low-carbon economy in North America by finding new markets for the province's large hydroelectricity resources. Houle & McDonald (2012) assert these benefits led the province to pursue policies

¹⁰ Engaging internationally and pursuing direct relations with other countries has been a longstanding strategy in Quebec dating back at least to the infamous speech given by French President Charles de Gaulle at Expo 67 in Montreal where he proclaimed "Vive le Quebec libre" which caused a diplomatic uproar and contributed to the emergence of the Quebec separatist movement.

like cap-and-trade and a carbon tax. One provincial policy analyst who worked extensively on the climate change file, who was interviewed for this study, also suggested that Quebec wanted to be a leader because it was particularly vulnerable to the impacts of climate change. This individual noted Quebec covers a large and diverse geography and is subject to the range of impacts from flooding and droughts in the south to the loss of sea ice and permafrost in the north. In particular, the 1998 ice storms in Quebec, often called the greatest natural disaster in Canadian history, brought increased attention from the public and politicians to extreme weather issues and the linkages to a changing climate.

The provincial election in 2003 brought the Liberals to power ending nine years of Parti Quebecois government; however, the province's commitment to Kyoto and the UNFCCC did not waver. New premier Jean Charest had a track record on climate change as a former federal environment minister in the Mulroney Progressive Conservative government. Charest had headed the Canadian delegation to the 1992 international earth summit in Rio which led to Kyoto and maintained a keen interest in the climate change file. As Quebec premier, Charest was committed to making the province a leader on climate change and maintaining involvement with the international process.

Through its international engagement Quebec developed a reputation as a subnational leader on climate change. In 2005 the COP was held in Montreal, the first time it had been located in North America. At the conference Charest co-hosted a summit of subnational actors with Manitoba Premier Gary Doer which produced a joint declaration on the importance of federated states and regional governments in addressing climate change. The 2005 COP meetings also provided an opportunity for Quebec to put forward its interests in national policy as it brought attention to the ongoing dispute between the province and the federal government

on Kyoto implementation. The meetings sparked a public argument between Quebec environment minister Thomas Mulcair and his federal counterpart Stephane Dion about their respective governments' role ("Quebec should end", 2005).

The differences between the federal government and Quebec on climate change widened in 2006 as Stephen Harper and the federal Conservative party were elected to a minority government. While leader of the opposition Harper had indicated Canada should not attempt to meet its Kyoto commitment, arguing that the targets were unachievable and that any actions to reduce GHG emissions would place Canadian business at a disadvantage with the US, which was not participating in the international agreement (Paehlke, 2008). The Conservatives also eliminated many of the previous federal Liberal government's climate change programs and resources which had supported Quebec in reducing their GHG emissions.

Within months of the federal Conservatives' election the Quebec government served notice that the province would not follow Ottawa's new path on climate change and reaffirmed its commitment to Kyoto. The government released its own provincial plan to achieve its share of Canada's targets under the international commitment, set at 6 per cent below 1990s level by 2012, and called on the federal government to provide funding for the rest (Ministry of Sustainable Development, Environment & Parks, 2008). The centre-piece of Quebec's climate change strategy was the country's first levy on fossil fuels, a small tax designed to generate revenue for a Green Fund to finance the government's climate change activities. This new funding focused particularly on the transportation sector, the largest source of GHGs in the province.

Quebec's climate change plan was part of a larger environmental or sustainability agenda which involved action in several areas. The province passed *The Sustainability Act* in April 2006 which charged every government department with developing a sustainability plan and periodically reporting on progress. An independent Sustainability Commissioner was set up in the provincial auditor general's office to review and audit the government's sustainability agenda, including its climate change actions. A new energy strategy focused on finding new markets for hydroelectricity and increasing economic development while the *Quebec Public Transit Policy* addressed the transportation sector by setting goals for increased service and ridership. As the government formally established its new environmental policy agenda in the first half of 2006, this period in Quebec politics became known as "le printemps vert" or "the green spring".

The Ministry of Sustainable Development, Environment, Wildlife and Parks (MDDEFP) was tasked with managing Quebec's new climate change plan, which involved several different departments and required annual public reporting on the government's actions. Although some other subnational governments chose to locate their climate change units centrally in the premier's or cabinet office, the unit working on climate change in Quebec remained in the department and reported through the ministry's deputy and the regular hierarchical chain of command in the department. In addition, rather than establishing a coordinating committee at the senior bureaucratic or political level to manage the file; MDDEFP reported to cabinet through the minister and administrative agreements were signed at the bureaucratic level between the MDDEFP and ministries who were responsible for implementation of the plan.

Quebec's collaboration with other subnational governments

As Quebec developed its domestic framework for addressing climate change, the province began to engage with other likeminded jurisdictions and collaboration became an important part of the government's approach. One high level policy maker who was in government at the time said of Quebec's collaboration on climate change: "It motivated us. Every time someone advanced, it was a new benchmark for us to try to attain. So there was a sense of very healthy competition and emulation with regard to collaborating with other jurisdictions".

Quebec quickly established a partnership on climate change with Ontario, creating a block of central Canadian provinces that could serve as a counterweight to the western-based Conservative federal government. Charest and Ontario Premier Dalton McGuinty were both critical of the federal government's decision to step away from its Kyoto commitment and cut funding to climate change programs. The premiers were concerned that any climate change plan that did come from the federal government would be favourable to Alberta, which had rejected Kyoto due to concerns about the impact on its oil and gas industry. Quebec also had a close relationship with Manitoba dating back to 2002, when they were the only provinces that supported the Kyoto agreement, and the partnership continued to grow as they both shared an interest in promoting hydroelectricity in North America.

In the summer of 2007, Quebec, Ontario, Manitoba and BC aligned in promoting a national climate change strategy, including GHG reduction targets and an emissions trading system. The leaders of the four provinces presented their strategy to fellow premiers at the annual Council of the Federation (COF), the meetings of Canadian provincial and territorial

premiers, in Moncton. The meeting resulted in an agreement on several small initiatives, but Alberta and other oil and gas producing provinces rejected a national program which they deemed too expensive and unfair to their fossil-fuel intensive economies (“Premiers squabble”, 2007).

Failure to secure a consensus among provinces did not weaken Quebec’s resolve to act on climate change. In the lead up to the annual COP in Bali at the end of the year, the Quebec National Assembly passed a motion with consensus from all provincial political parties to reaffirm the province’s support for Kyoto and its disagreement with Ottawa’s position. The move was made after Charest’s Liberal government had been reduced to minority status earlier in the year and provides a good example of the bi-partisan support for action on climate change and broader environmental consciousness that existed throughout the province.

At the Bali conference in December, Quebec environment minister Line Beauchamp, along with her Ontario counterpart Jon Gerretsen, criticized the Canadian federal government’s decision to set intensity targets, which would only reduce Canada’s GHG emissions relative to GDP allowing total emissions to rise, rather than recognize the country’s Kyoto goals. The two ministers also called on the federal government to commit to a successor to Kyoto, which it had been loath to do without major emitters like the US, China and India onboard (Panetta, 2007).

Beauchamp also used the conference to announce that Quebec would adopt a regulation introducing new emission standards for vehicles similar to those developed in California. The California standards provided another opportunity for Quebec to demonstrate its leadership as the US state was involved in a lengthy legal battle with auto-manufactures and the US federal government which had delayed their adoption. While a senior environment official from

California was on hand to lend her support to Quebec during the announcement, the province was actually exposed to the policy as part of its collaboration with Northeastern states. A policy maker who worked on sustainable transportation in Quebec pointed out that California's vehicle emission standards were one of the policies studied by the transportation committee of the NEG-ECP and was recommended for adoption to member jurisdictions. The Northeastern states had already pledged their support and Quebec followed them in making a formal commitment to adopt the standard.

Solidifying its involvement with subnational leaders like California and further differentiating itself from the Canadian federal government, Quebec joined the Western Climate Initiative (WCI), the group of US states who were working towards a regional carbon market. Quebec also continued to work closely with its Canadian allies on cap-and-trade as Ontario joined WCI around the same time and the two provinces held a joint cabinet meeting in 2008 which produced a formal commitment to develop a system by 2010.

Through its involvement in the UNFCCC process Quebec had been preparing to participate in some form of emissions trading for years and the province had already done work towards GHG reporting standards and participated in a pilot trading program. Quebec had initially contemplated participation in the Regional Greenhouse Gas Initiative (RGGI), the first market in North America comprised of states in the Northeast US, because it had a history of engagement in the region. Government officials and members of non-government groups who were interviewed for this study indicated that the Quebec government decided to join WCI because unlike RGGI it would cover more than the electricity sector, where the province's emissions were already low due to its reliance on hydro resources. Tackling emissions in other areas, such as large industrial emitters, would help the province meet its targets.

Many subnational jurisdictions in North America considered adopting California's low-carbon fuel standard (LCFS) which targeted GHG emissions from the production of fuel. Through its collaboration with the NEG-ECP, Quebec was part of a study and public consultations supporting members' decision on adopting a policy similar to the one in California. Despite this, as of 2015 an LCFS has not been adopted by Quebec or Northeastern states. The policy has become controversial across North America, particularly in fossil-fuel producing jurisdictions like Alberta, which are concerned about the impact on local industry. With access to large hydro resources, Quebec has largely focused on supporting vehicle electrification technology rather than focusing on reducing the GHG emissions from transportation fuels.

On the road to Copenhagen

Throughout 2008 and 2009 the momentum on climate change appeared to be building. In the US, federal elections brought Barack Obama to the White House with promises to act on climate change and gave the Democrats control over both houses of Congress. Several climate change bills were introduced in Congress, including one that would create a national cap-and-trade system. With Canada likely to follow the US's lead, continental climate change policies in North America appeared to be on the horizon. In addition, the international community was preparing for the climate change summit in Copenhagen at the end of 2009 which was a major milestone in the UNFCCC process and was expected to produce a successor to the Kyoto agreement.

Quebec continued to work diligently on its own GHG emission reduction agenda while preparing for movement on climate change abroad. In June 2009, the province took the first step towards participation in a regional carbon market by passing authorizing legislation for a cap-

and-trade system which could link with California. In the lead up to Copenhagen, Quebec once again resolved to distance itself from the Canadian federal government by unveiling its new post-Kyoto targets of a 20 per cent reduction by 2020. The target, formulated by a special parliamentary committee, matched those of the European Union, a leader among developed countries on climate change. In announcing the targets, Beauchamp stated: “Quebec is showing its partners and the international community that it is fully committed to assuming its share of responsibility” (Quebec Government, 2009b).

Charest increased his international profile on climate change ahead of Copenhagen. The Quebec premier travelled with Doer to Brussels where the two leaders delivered speeches on climate change. At the event, Charest fired another shot at the federal government stating that Ottawa needed to bolster its climate change plans and consult with the provinces ahead of the Copenhagen conference (“Charest”, 2009). The premier also attended conferences of subnational climate change leaders in New York and California which were organized to place pressure on national governments in North America to reach an agreement at Copenhagen. The latter event was held by California Governor Arnold Schwarzenegger, who had recently commended Quebec for its aggressive climate change plans (Quebec Government, 2009a).

At the Copenhagen conference, the Quebec and Ontario environment ministers held a joint media event criticizing the federal government and committing to continued cooperation between the two provinces. Charest also issued a sharp rebuke to Ottawa for being a laggard on climate change and cautioned that without GHG targets that conformed to international norms, Canadian exports could face sanctions or penalties from other countries (Nadeau, 2009). For his part, federal Environment Minister Jim Prentice stuck to the government’s line that the real economic risk was moving further than the US and suggested Canada would not buy into the

hype and pressure surrounding large international events like the Copenhagen conference (De Souza, 2009).

The central Canadian premiers also argued the federal government's climate change target, which used 2006 as a baseline rather than the internationally accepted 1990, favoured Alberta. The western province benefitted from a 2006 baseline because it would have to account for fewer of the GHG emissions that had come with the rapid expansion of the oil sands in the last 15 years. However, a later baseline year disadvantaged Quebec and Ontario because they would not receive credit for the early actions they had taken. The severity of the disagreement between the provinces and the federal government even led some to comment that climate change could once again spark a national unity debate as it had in 2002 over Kyoto (Woods, 2009).

The Canadian federal government ended up adopting an absolute GHG emission target at Copenhagen, rather than an intensity target. However, this was only after the Obama administration had recently upped the ante by introducing a new goal and therefore did little to appease Quebec. The war of words between the province and Ottawa continued into the beginning of 2010 as, in a speech in India, Charest stated: "the only federal plan is to align with the United States, however I never in my life thought that aligning our policies with the United States was good enough for Canada" (Ibbitson & Seguin, 2010). In return, Prentice criticized Quebec's vehicle emissions standards, which had come into force at the beginning of the year, as an example of what would happen if Canada moved out of step with the US. The minister suggested that car manufacturers were being forced out of the province.

The argument over vehicle emissions was effectively resolved when the Obama administration announced new national standards similar to those developed by California. The Canadian government quickly agreed to follow the US, creating one single continental standard. One of the reasons federal governments in Canada and the US contemplated new standards was that the list of states and provinces supporting the policy continued to grow, increasing demand for a national response. As an early adopter and champion of the standards in Canada, the move constituted a major victory for the Quebec government on climate change and its capacity to be influential at an international level.

Cap-and-trade did not spread to the rest of the continent like the vehicle standards. The economic recession had taken a toll on the North American economy erasing the appetite of the public and politicians in many jurisdictions for any policy that could place costs on business and slow the recovery. By 2010 it was clear the US Congress would be unable to pass national cap-and-trade legislation and at the end of year all states except California pulled out of WCI's carbon trading process. Ontario, BC and Manitoba were also not ready to move forward on schedule.

As Quebec's largest trading partner and geographical neighbour, Ontario's inability to meet the 2012 start date for WCI was a setback. Some sectors of industry in Quebec indicated they were upset because they had been assured Ontario would participate and that they would not be placed at a competitive disadvantage. One industry official in the province indicated they had said: "ok" to cap-and-trade, as long as their main partners were there. This official also indicated there was concern that because Quebec had taken many early actions there were few opportunities left for them to reduce their emissions or develop local offsets, which would force them to purchase credits from California and result in capital leaving the province. Despite being

faced with pull back from cap-and-trade across North America and internal questions, Quebec continued to forge on, fine-tuning its legislative and policy framework to bring it in line with the WCI requirements and ensure it would be ready for the first trial period scheduled for 2012.

At the end of 2010, at the annual UN climate change conference in Cancun, Mexico Premier Charest continued to call out the federal Conservatives for following the US on climate change and failing to commit to a post-Kyoto plan (“Charest slams Canada”, 2010). While Charest was hailed as a champion of climate change at the international conference, at home he was facing growing dissent over allegations of wide spread corruption in the public sector and anger over other environmental issues, most notably a lack of consultation with local communities on exploration for shale gas in the province. The premier’s popularity continued to slide over the next year and in the 2012 election the Liberals were defeated by the PQ. Charest lost his own seat and shortly after the election announced his retirement from politics.

Before the election, the province joined California as the first jurisdictions in North America to participate in WCI’s carbon market when the formal trial period began in 2012, with the expectation the systems would be linked by 2014. The government was also able to kick off the next phase of the province’s climate change agenda by releasing a new plan designed to get the province to the 2020 emission reduction targets. A report by the province’s Sustainable Development Commissioner that year indicated that the government was making progress in reducing the province’s emissions, even though there were concerns emissions could rise again as the provincial economy’s performance picked up after the economic downturn (Quebec Sustainable Development Commissioner [QSDC], 2012).

Explaining the selection of policy instruments in Quebec

Quebec's commitment to international engagement on climate change, driven by its environmental consciousness and its desire to distinguish itself from the federal government's position, was a critical factor in policy development which led the province to engage in subnational collaboration and adopt leading policies. While political leadership and the prospect of economic opportunities were conducive to strong action on climate change they do not by themselves explain why the province was able to move further and adopt policies like cap-and-trade when other provinces that had similar circumstances and also initially sought leadership positions were not.

As a result of Quebec's participation in multi-jurisdictional forums, much of the province's policy development reflected a process of harmonization, where jurisdictions address a common problem through a collective institution (Bennett, 1991b), which drove and shaped domestic policy development. The province frequently timed major policy announcements with COP meetings, including new targets at Copenhagen in 2009 and California vehicle emissions standards at Bali in 2007, which highlights its desire to engage internationally. Through its work with California and the WCI, Quebec also developed common guidelines and schedules for implementing a cap-and-trade system and linking them together in a common market. These harmonization processes provided periodic benchmarks which structured policymaking in Quebec and pushed it forward.

Quebec's GHG reduction targets were heavily influenced by its involvement in international climate change institutions and the goals set by the European Union. Even though as a subnational jurisdiction Quebec was not bound by the treaty, the provincial government

adopted Canada's Kyoto commitment in its 2006 action plan. In developing a target for Copenhagen, the province went further and mirrored the EU's goal. The two regional forums that Quebec was a part of, the NEG-ECP and WCI, also produced regional reduction targets. A Quebec official that worked on the province's intergovernmental commitments indicated there was some effort to ensure the province's domestic targets were aligned with its NEG-ECP commitment, but the WCI target, which was an accumulation of the individual goals already set by member jurisdictions, did not influence provincial decision-making.

The influence of Quebec's international engagement was also prominent on cap-and-trade and drove the province to look for a North American equivalent in California and the WCI. Cap-and-trade emerged as the preferred policy for reducing emissions internationally (United Nations Framework Convention on Climate Change [UNFCCC], n.d.) and the EU had adopted its Emissions Trading System (ETS) in 2005; therefore Quebec viewed participation in carbon trading as part of its international commitment (Quebec Government, n.d.). Thus, the province was motivated to be part of a system, even when most other jurisdictions decided not to participate.

Quebec's international and subnational engagements also helped the government get industry and the rest of the province on board with cap-and-trade. As one experienced observer of Quebec climate change policy described:

"The implementation aspect of cap-and-trade is tough, it is politically tough and it is technically complicated. You have to address emissions from all your final emitters. You have to talk to them, fight with them and argue with them. They pressure you publicly and privately, either to say this is a bad idea, or that they should get special treatment

within the system; so it's tough. Once the decision is taken there is no turning back, the government has to commit itself publicly at the domestic level, but also internationally, as this is a tool designed to link with other jurisdictions. By this time, the Quebec government had really made climate change an important aspect of its diplomacy. Our premier was all over the place talking about the linkage of the Quebec system with California's. It became one success story in North America: while the US federal government was not moving on climate change and the Canadian federal government certainly did not want to move, there was at least a success story and it was the WCI."

While cap-and-trade was a key policy on which Quebec could demonstrate its international commitment and distinguish itself politically from the Canadian federal government, information about carbon trading systems established in other jurisdictions was also used by provincial policy makers as part of a rational process of policy selection (Bennett, 1991a). The province had done significant leg-work preparing for cap-and-trade as part of Kyoto and had contemplated participation in RGGI before deciding WCI was a better fit. An expert on cap-and-trade interviewed for this study noted that in developing their system, Quebec and its partners learned from the European ETS and RGGI and attempted to avoid some of the issues which had emerged, such as over-allocation of credits leading to low prices and a disruption of the trading market.

The presence of existing policy decisions, or policy legacies, also explains Quebec's decision to move forward with carbon trading. Cap-and-trade was critical to Quebec's domestic climate change agenda because the revenue generated by the system was earmarked to replace the carbon levy as a principle source of funding for other climate change initiatives in the province. The Green Fund had been instrumental in bringing disparate groups in the government

and the province together around climate change and appeared to be making a difference. The largest portion of the Green Fund had been dedicated to public transportation and in 2012 the Association du transport urbain du Quebec issued a report saying that the targets the province had set for service and ridership had been met and surpassed (Societe de transport de Montreal, 2012). The next stage of the transit plan was to be supported by increased revenue coming from the province's cap-and-trade system and if Quebec did not participate the funding would have to come from somewhere else.

Quebec's work on vehicle emission standards provides another example of harmonization as the policy came to Quebec through its work with NEG-ECP and the WCI. Quebec was one of only two Canadian jurisdictions, along with BC, to actually move forward with legislation introducing California's vehicle standards in their own jurisdictions, even though many US states and provinces indicated their support. The standard was announced at the Bali summit in 2007 and a policy maker interviewed for this study that was involved in developing the standard in Quebec noted that the policy was also important to the province because similar standards for vehicles already existed in Europe and Japan, indicating once again the desire in the province to conform to international norms.

Despite the prominent role Quebec's collaboration played in policy development, not all of the province's policy decisions were influenced by its engagement with other jurisdictions. Quebec did not pursue California's LCFS policy and preferred to focus on promoting electrification of vehicles. Collaboration also played no role in the development of Quebec's carbon levy as it was the first policy of its kind in North America and officials in the province that were interviewed for this study indicated it was largely the result of the government's desire to fund other climate change initiatives and raise public awareness about its actions as well as

pressure from environmental groups to ensure that the province was serious about its lofty climate change goals.

Quebec also did not follow the strategy for managing policy development that was established in California and adopted in other provinces of creating a cabinet committee and a dedicated centralized bureaucratic unit. Interviews of policy makers at both the political and bureaucratic level in Quebec revealed that they believed that because the premier had prioritized climate change and was personally involved, the ministry had the ability to push the agenda and achieve buy-in from other departments without a management structure which contained a dedicated cabinet committee and a centrally located bureaucratic unit. One public servant bluntly stated that it does not matter where the office is located as long as you have the political support.

Government officials also believed the Green Fund was critical to gaining support for the government's climate change actions. The fund was managed by the MDDEFP and, because there was actual financial support for initiatives, other departments came to them proposing projects rather than climate change officials having to encourage their colleagues to take action. One policy official who helped manage the climate change file also suggested that the government was able to garner support across ministries for climate change because sustainable development was entrenched in the institutions and culture of the Quebec public service. As per the requirements of the Sustainability Act, every government department was required to complete a plan detailing how their activities contributed to the government's broader sustainability strategy, which was monitored by an independent agent of the national assembly. This requirement placed environmental issues like climate change at the top of their agendas.

However, the 2012 report by the Quebec Sustainability Commissioner provides another perspective as it argued that one of the deficiencies in the government's climate change agenda was the ability to manage a file that cut across different ministries. The Commissioner recommended creating new structures that would facilitate horizontal management in the future, given that the province had committed to an even larger investment of public funds to address climate change following 2012. In doing so, the Quebec government may wish to look at the example of BC, California and Ontario for lessons in developing an administrative structure that works across government to develop and manage the province's new climate change plan.

Conclusion

The storyline of policy development in Quebec, supported by smoking-gun observations and confessions from key policy makers (Blatter and Markus, 2014), reflects a strong commitment by the province to the international climate change process. This commitment led to aggressive GHG targets Quebec set and its resolve to adopt vehicle emission standards and cap-and-trade. Through these policies and its high profile in national and international climate change debates, Quebec managed to outdistance many of its peers in the country leading to its title as Canada's climate change champion. The next chapter examines the experience of Ontario, a province which joined Quebec in pursuing many climate change policies that were making their way across North America, but was unable to follow its central Canadian partner to the same extent in establishing them.

CHAPTER 6

CLIMATE CHANGE POLICY IN ONTARIO: A DE FACTO NATIONAL LEADER IN CANADA?

In 2007, at a speech during the Clean Air Summit in Toronto, Ontario Premier Dalton McGuinty joined the wave of politicians and leaders clamouring for action on climate change in North America by proclaiming that it was “the defining issue of our generation” (Ontario Government, 2007b). Ontario was dissatisfied with the Canadian federal government’s response to climate change and looked to build support for an alternative approach that would meet Canada’s international commitments and better reflect the province’s interests. Ontario joined with climate change leaders like California and Quebec in supporting a cap-and-trade system, which would set a limit on total GHG emissions unlike the federal government’s intensity-based approach, and even attempted to outflank Ottawa by negotiating an agreement among all Canadian provinces on climate change at that year’s meeting of provincial premiers.

Despite its bold positioning, progress on climate change in Ontario slowed over time as the prospect of a national system, from Ottawa or the provinces, diminished. Government officials were forced to announce that the province was not ready to participate in a regional cap-and-trade system alongside California and Quebec when it began in 2012. The goal of this chapter is to understand why Ontario sought to become a national leader on climate change, pursuing policies like cap-and-trade and even promoting them to other provinces, yet ended up facing significant challenges adopting them domestically.

As the largest province in the Canadian federation, Ontario engaged with other subnational governments to fill the void left at the federal level, while protecting provincial

interests and preparing for Canadian and North America policy. For example, the province wanted to ensure it would receive proper recognition in any national scheme for its efforts to phase-out coal burning electricity. McGuinty also saw the local political benefits of being strong on a file where public demand was increasing and Ottawa was noticeably absent, and working with California and other subnational leaders provided an opportunity to solidify and highlight the province's leadership. However, the economic downturn in North America in the late 2000s, which was felt acutely by Ontario and its manufacturing industry, and the failure of national policies in Canada and the US tapered the province's desire to engage outside its borders and increased concerns that action on climate change could do further damage to the provincial economy. As a result, the province slowed its progress on policies like cap-and-trade, leaving others to take the lead on climate change.

Climate change policy development in Ontario

The Ontario government was active in discussions and debates about climate change policy at the national level in the early 2000s. The provincial Progressive Conservative government released a climate change plan in 2001 but expressed concern about Canada's involvement in the Kyoto protocol after the US indicated it would not participate. The government's primary concern was that the costs of meeting Canada's target under the agreement would place Ontario's manufacturing industry at a competitive disadvantage compared to its southern neighbour (Toulin & Benzie, 2002).

When McGuinty and the provincial Liberals took power in 2003, after the federal government had pushed forward and ratified Kyoto, the new premier worked with Ottawa as it tried to create a national program which would help the country meet its targets. Ontario was

supportive of efforts to address climate change because the most significant action that the government could take to reduce GHG emissions, the shut-down of the province's coal-fired electricity plants, was already planned. Discussion of phasing-out coal started in the early 2000s as an air quality and health issue, as the number of smog days and health problems had increased public concern in southern Ontario. Many policy makers interviewed for this study, both inside and outside government, noted that it was only as awareness of climate change in the province increased that government also began to highlight the reduction in GHGs that would be created. These interview subjects frequently referred to "co-benefits" and "killing two birds with one stone" when discussing the advantages of the policy.

Transitioning from coal to low-carbon sources of energy in the province was also viewed as a tool for economic development. Low-carbon energy sources, such as wind, solar and biomass, would replace some of the capacity lost through the coal-phase out while creating new jobs in communities across the province. McGuinty and the government were also looking to reinvigorate the province's manufacturing sector, which continued to face competition from existing and emerging industrialized economies in an increasingly internationalized environment, by preparing for new markets such as wind turbines in addition to staples like automobiles (Ontario Government, 2009). New climate change policies, which could hasten and prepare for the emergence of a low-carbon economy in the province and abroad, were therefore complementary to the government's larger economic and energy agenda.

When the newly elected Harper government cut funding to climate change programs and announced it would not abide by the Kyoto agreement in 2006, Ontario felt obligated to step in and fill the void. One policy maker who spent over two decades working on air quality and climate change issues in the province asserted that Ontario has a view not just as a local

jurisdiction but as a world leader and that the province believes it has a responsibility to the region and Canada to keep everyone together. In addition, the policy maker suggested that as a larger jurisdiction Ontario cares about what happens nationally and sub-nationally and sees itself as a dealmaker in Canadian federation.

The Ontario government also maintained a high profile in international climate change discussions and processes; presenting what it argued was a more positive image of Canada to the rest of the world than the federal government, which provincial environment minister John Gerretsen called “an embarrassment” (Nadeau, 2009). Several Ontario public servants who worked extensively on climate change noted the province’s involvement in the UNFCCC process and attendance at the annual COP meetings was an important driver of the climate change file in Ontario. As one suggested:

"In the absence of strong federal action, Ontario still has a sense of commitment through the international community. We are at every Conference of the Parties. We work hard to understand what's happening at the international level. From our perspective, everybody has a role to play in this. So the Kyoto agreement was a primary driver behind the development of the government's climate change action plan."

With the western-based Conservative party in power for the first time in over a decade and talking about abandoning international commitments and mirroring US policy to ensure continued expansion of the oil and gas industry in Alberta, Ontario was also concerned about how central Canadian interests would be reflected in the federal government’s new climate change plans. Soon after Harper was elected, Ontario and Quebec formed an alliance to promote their mutual interests. McGuinty and Quebec Premier Jean Charest committed to increased

cooperation between the two provinces in several areas, including climate change, and a formal memorandum of understanding (MOU) on the issue was signed by the Quebec and Ontario environment ministers a few weeks later.

Ontario extended its cooperation to US states, which were facing a federal Bush Administration loath to act on climate change, in the hopes of gaining a seat at a table that could influence policy at the continental level. The province briefly explored the possibility of participating in RGGI, the northeastern carbon trading system, because of pre-existing connections formed by working on regional air quality, but quickly turned to the opposite coast and the emerging Western Climate Initiative (WCI), led by California. A senior public servant working on climate change in Ontario indicated that the province's decision to work with WCI was driven by its desire to catalyze a national system as working with California provided a better opportunity to influence North America policy. Another policy analyst added that there were many similarities between the Ontario and California economies such as manufacturing, transportation and wine and fruit, which made the partnership a good fit.

In May 2007 McGuinty hosted California Governor Arnold Schwarzenegger on his trip to Canada promoting his state's new climate change agenda. McGuinty and Schwarzenegger signed an MOU agreeing to explore opportunities for carbon trading. Ontario also committed to implementing a provincial low-carbon fuel standard, which was already under development in California. Ontario was less enthusiastic about adopting California's standards for vehicle emissions because it was concerned the policy would negatively affect the province's auto-manufacturing industry. The province was looking for a national or continental policy to ensure a patchwork of standards would not emerge and force the industry to create different vehicles for different jurisdictions (Howlett & Keenan, 2008). Ontario's position initially prevented it from

joining its Canadian counterparts in the WCI as the guidelines required that members support the vehicle emissions standards as a complementary policy to cap-and-trade.

Ontario's climate change plan

Soon after McGuinty's meeting with Schwarzenegger the Ontario government publicly announced its first provincial GHG emission reduction targets - including a short term goal of a 6% reduction from 1990 levels by 2014, and longer term commitments of 15% by 2020 and 80% by 2050 - followed by an action plan called "Go Green" in August. By this time a fall election in the province seemed likely and climate change was an important piece of the Liberal's platform and electoral strategy. McGuinty saw the political advantages of appearing alongside a high profile leader like Schwarzenegger on an issue that was becoming more prominent in Ontario while the federal government was widely perceived as not doing enough. The premier sought to build on voters' dissatisfaction with the federal Conservative government on climate change and paint the provincial Tories, which had proposed a less ambitious 10% reduction from 1990 levels by 2020, with the same brush. The Liberals also hoped they would be able to use climate change to appeal to some NDP and Green party supporters and avoid splitting votes on the left side of the political spectrum (Howlett, 2007).

Ontario's targets were similar to Canada's commitment under Kyoto of six per cent below 1990 levels but provided two extra years, giving the government until 2014 to achieve the reductions. Ontario decided not to follow the lead of California, which had placed its targets in legislation, which prompted criticism from the provincial NDP who suggested a legal commitment would help hold the government accountable for the goals ("Recall legislature", 2007). Instead, to ensure the targets were met the government followed Quebec's example and

promised to provide an annual public report on its progress which would be reviewed by the province's Environmental Commissioner, an independent agency of the legislature.

The Go Green plan included initiatives like cap-and-trade and participation in carbon trading as a key strategy to reduce industrial emissions and the low-carbon fuel standard as a means to address transportation emissions. The plan also focused on other activities in the transportation and energy sector which served several government priorities. As part of its plan to promote the low-carbon economy and create jobs, the government introduced a Standard Offer Program (SOP), which would provide long-term, fixed-price contracts to renewable energy producers and give them the certainty to make long term investments, and announced significant financial support for the green manufacturing sector. The province also released a public transportation and land-use strategy which sought to address increasing traffic congestion and reduce GHG emissions in the corridor between Hamilton and Toronto.

The same month that Ontario released its provincial climate change plan, McGuinty attended the Council of the Federation (COF), the annual meeting of Canadian premiers, in Moncton where he proposed a national policy to his colleagues that would place an absolute cap on the country's GHG emissions and a system to trade carbon credits across jurisdictions ("Public wants action", 2007). McGuinty proposal was an alternative to the federal government's recently released "Turning the Corner" plan which relied on intensity targets. The federal plan had been widely criticized by environmental groups and experts who argued that it would see no reduction in actual emissions and was largely designed to ensure the expansion of the oil and gas industry in Alberta (Pembina Institute, 2007).

McGuinty's overtures were unsuccessful as the oil and gas producing provinces, led by Alberta, were not supportive of setting hard caps or carbon trading. Like the federal government, Alberta had set intensity targets for the province and was developing its own regulation to address GHG emissions from its oil and gas sector. Alberta Premier Ed Stelmach voiced his concern that carbon trading would result in capital leaving his province as Alberta oil and gas companies were forced to purchase credits from other jurisdictions. Stelmach was unwilling to change his position even after McGuinty indicated that Ontario would work towards the California vehicle emissions standards if Alberta came on board ("Premiers squabble", 2007). In the end the provinces could only agree to low cost measures such as promoting energy efficiency and developing common standards for GHG emission reporting.

In the fall of 2007 McGuinty and the Liberals were elected to a second majority. With the election out of the way and a new mandate, the provincial government began to feel pressure from environmental groups to get to work on its climate change promises ("Environmentalists upset", 2007). In February 2008 the premier established the Climate Change Secretariat (CCS) in the cabinet office to oversee implementation of the government's climate change agenda and appointed Hugh Macleod, a former senior manager in the health department, as its head. The CCS' main responsibility was to provide overall coordination and leadership in managing the climate change file which involved actions and programs in many different government departments. The CCS was also designed to assist the government in meeting its annual reporting requirements by tracking the reductions achieved in each department and reporting to a Climate Change Action Committee comprised of deputy ministers and chaired by the Minister of Environment.

A government official who worked on climate change in Ontario during this time indicated that another reason for having a centralized body responsible for climate change was to increase the issue's priority across government and drive action in individual departments. Along with annual public reporting, this would ensure departments prioritized their climate change responsibilities and met their obligations. The move was lauded by environmental groups who had previously questioned the government's resolve on climate change and demanded Ontario follow the example of BC and California which had used a similar administrative approach to develop their ambitious legislative and policy agendas on climate change (Gillespie, 2008).

In June 2008 Ontario and Quebec took their cooperation on climate change to the next level by signing an MOU at a joint cabinet meeting in Quebec City, promising to work together and establish a cap-and-trade system by 2010. The two premiers continued to argue that the federal plan to address climate change was inadequate and McGuinty stated: "one of the reasons we got together is that we think we can go further, faster. The feds have failed to put forward a plan in keeping with the ambitions and aspirations of Canadians" (McGuinty, Charest sign deal, 2008). Another component of the premiers' plan was that GHG reductions from early actions taken by both provinces, including the Ontario government ending coal use at the Lakeview plant in 2005, should be recognized under the system. This would not occur under the federal Conservative's plan which used a base year of 2006. In response, federal environment minister John Baird charged that the provinces' move was nothing more than political posturing as there was little detail on what the cap-and-trade system would look like (Howlett, 2008).

The Ontario-Quebec agreement was designed to complement work done through regional initiatives and a month after signing the agreement Ontario joined Quebec as a full member in WCI. The province was eventually able to negotiate an exemption from adopting California

vehicle standards because the other Canadian members believed having the country's largest province on board was necessary to make the initiative successful (Howlett & Keenan, 2008). With Ontario in tow, the four provinces could boast that together they represented almost three quarters of Canada's economic activity, about half its GHG emissions and a majority of its population (BC Government, n.d.).

For its part, Ontario was anxious to be involved in WCI and cap-and-trade as throughout 2008 it appeared more and more likely that a continental system would emerge in North America. The federal government in Canada had made it clear that it would follow the US' lead and harmonize climate change policies with its larger neighbour to the south and as one climate change policy maker in Ontario indicated:

“There was clearly a sense in the U. S., pre-2008 election, that both Republicans and Democrats were committing to action on climate – that there was going to be policy action in North America and so Ontario wanted to be ready for that and make sure that what we aligned with where things were going. But also, we wanted a regulatory framework design that really reflected our economy and our opportunities to reduce greenhouse gas emissions.”

Soon after Ontario joined, the WCI released its program design guidelines which provided a roadmap for members to establish individual cap-and-trade systems that together would form the regional market. The Ontario government began consulting stakeholder groups and the public on the system and at the end of 2009 amended its existing environmental protection legislation to grant the authority for a cap-and-trade program in the province. At the

same time the government introduced the first component of the system, a regulation requiring large facilities to report their emissions to government.

Similar to cap-and-trade, momentum continued to grow around other climate change policies at the subnational level in North America. A growing number of states and provinces were coming out in favour of California's vehicle emission standards leading the federal governments in the US and Canada to make them national standards. Now that the tables had turned and there would be a single harmonized policy across the continent for the auto-industry, Ontario's primary concern was alleviated and the province no longer opposed the policy.

Ontario also continued to push forward with its low-carbon energy and economic development agenda building off its largest climate change initiative, the coal-phase out. At the same time the province was working on cap-and-trade it passed *The Green Energy Act* which continued to support the shift to renewable energy sources in the province. This came as the effects of the financial crisis and economic slowdown of the late-2000s were beginning to emerge, dealing another blow to the province's auto-industry. The main components of the plan were a feed-in tariff, which built on the SOP, and continued investments in the green manufacturing sector.

Ontario attended the UNFCCC summit in Copenhagen at the end of 2009 ready to share the work that it was doing on climate change and clearly distinguish itself from the federal government which by this time had become a full-blown pariah at international climate change events. Ontario and Quebec issued a joint statement condemning the federal government's approach, arguing once again that its targets were too weak and that the central Canadian provinces would be required to bear the costs of reducing the country's GHG emissions. Ontario

Environment Minister John Gerretsen stated: "I don't think it takes a genius to figure out that ... they want to continue to develop those (oil sands) and obviously if they are developed there may have to be larger greenhouse gas emission (cuts) elsewhere in the country in order to meet our targets" (Woods, 2009). Canada ended up adopting the US targets of a 17 per cent reduction from 2005 levels by 2020. While this was the first time the Conservative government had accepted hard caps on emissions rather than intensity targets, they still did not match the country's initial Kyoto commitments or address Ontario's concern regarding credit for early actions taken in the province.

Ontario's momentum on climate change slows

Ontario's drive for cap-and-trade hit a speed bump in 2010. In the fall, at the third joint cabinet meeting between Ontario and Quebec, McGuinty and Charest reaffirmed their commitment to cap-and-trade but noted that progress across North America had slowed considerably because of the economic downturn casting uncertainty on regional cooperation (Seguin, 2010). By this time it had become clear that federal US legislators would not be able to pass a bill on cap-and-trade and at the end of the year all states participating in WCI except California pulled out. Canadian provinces like Manitoba and BC also did not appear to be ready to enter the system leaving California and Quebec as the only two participants.

In April 2011, the Ontario environment minister admitted that Ontario was not ready to meet the WCI start date of 2012 but indicated it was still committed to joining the regional market at some point (McCarthy, 2011). In October McGuinty was back on the campaign trail preparing for another election. The Liberal leader backed away from cap-and-trade further by stating that he would only take Ontario into a regional system if it made economic sense for the

province (Maurino, 2011). With rising concerns in the province about policies that could increase costs at a time when business and industry were still recovering from the economic recession in the province, the Liberals shifted from a position of leadership on carbon trading to a wait-and-see approach which kept its options open.

The LCFS also did not spread widely in Canada and the US, after the oil and gas industry and the Canadian and Alberta governments launched a strong lobby effort against the standard. The US federal government and most states and provinces backed away from the policy. The Ontario government began consultations with industry and environmental stakeholders in 2008 and met with officials in California to learn about the policy but progress stalled shortly after. Little mention was made of the LCFS, even though it had been part of the original agreement signed between McGuinty and Schwarzenegger, until the provincial environmental commissioner raised the issue in 2013 prompting the government to admit it was no longer pursuing the policy (Environmental Commissioner of Ontario (ECO), 2013).

McGuinty and the Liberals won the 2011 election but were reduced to a minority government. By this time the CCS was quietly winding down and the government's progress report indicated that, rather than a dedicated unit, several people in the cabinet office were now responsible for managing the file (Ministry of Environment, 2011). Macleod had left his position as head of CCS in early 2010 after public concerns over his salary and the perception that the province was not moving fast enough to meet its targets ("Premier's climate guru leaves", 2010). The progress report indicated that many of the key roles of the CCS had reverted back to the environment branch (Ministry of Environment, 2011).

In the fall of 2012 Dalton McGuinty resigned as premier. While the government was well on its way to phasing out coal, the green energy strategy had hurt the Liberals in the 2011 election as local communities complained about the location of wind turbines and the lack of consultation with municipal governments on new projects (Talaga, 2010). The cancellation of plans for two natural gas plants that would replace capacity lost from coal also proved costly to the government as it was criticized for mismanaging taxpayer money and making the decision based on partisan political calculations rather than the public interest. The issue turned into a full-blown scandal when the government was forced to release a new round of documents related to the closures after previously claiming they had provided all the information available. Adding fuel to the fire, at the end of 2012, in its annual report on climate change, the provincial environment commissioner raised alarms bells around the province's climate change agenda, suggesting the government's targets would not be met through the initiatives that were currently underway (ECO, 2012).

Despite the criticism and controversy within the province, Ontario gained international attention as the only jurisdiction in North America to eliminate the use of coal for electricity and for producing the largest GHG reduction from a single action on the continent (Harris, Beck & Gerasimchuk, 2015). More recently, after the Liberals were returned to government with a surprise majority under Kathleen Wynne in 2014, the government has re-committed to joining with Quebec and California in WCI's cap-and-trade program (Ontario Government, 2015).

Explaining Ontario's climate change policy response

Ontario worked with subnational partners because it felt an obligation to fill the void of leadership left by the federal government, in Canada and internationally, and saw an opportunity

to prepare for and influence national and continental policy. Numerous policy makers in the province referred to this strategy as “getting ahead of the curve”. Ontario was also inclined to take a leadership role on climate change because, as one interview subject put it, the “heavy lifting” of reducing the province’s GHG emissions had already been done through the coal-phase out. Finally, McGuinty looked to build on the coal-phase out and other provincial climate change initiatives to strengthen the political position of his Liberal government in the province. After the economic downturn and the failure of continental climate change policies, concerns about the economic impact of new initiatives arose and Ontario transitioned to a more cautious approach. The province decided not to move forward with the policies it had considered through its collaboration.

To demonstrate its commitment to Canadian leadership, Ontario set GHG emission reduction targets that were similar to the country’s original Kyoto goals. Ontario also adopted a target for 2020 which was slightly less ambitious than those set of the EU and Quebec but still followed the schedule set by the UNFCCC. Ontario also adopted the same approach as Quebec by tasking an independent legislative officer with periodically reviewing government’s progress rather than following California’s lead and setting the targets in legislation.

Ontario developed much of the legislative and policy framework necessary to participate in regional carbon trading, aligning itself closely with Quebec and following the common guidelines produced by WCI. However, policy makers in Ontario both inside and outside government asserted that after the economic recession in the province and widespread pull back from cap-and-trade by other jurisdictions in North America, there was less urgency for the province to lead on cap-and-trade. One individual explained that the government essentially got “cold feet” as it grew concerned participating in carbon trading would place the Ontario

economy at a competitive disadvantage. Another policy analyst interviewed for the study believed the controversy surrounding the green energy strategy in Ontario and the eventual reduction of the Liberals to minority status also slowed down the government's progress on cap-and-trade as it was consumed with other issues and less willing to push forward with policies that were even remotely related to the file.

The decision to phase-out coal played a prominent role in Ontario climate change policies, indicating the importance of existing policy decisions on the selection of policy instruments. Initially, the coal phase out positioned Ontario to participate in cap-and-trade, as it already planned for significant reductions, and pushed the province to engage in subnational collaboration to ensure it would receive credit for them as part of any emerging trading system. However when national policies failed, the coal phase-out also provided a signature policy which reduced a large number of emissions and demonstrated Ontario's commitment to addressing climate change. This made it easier for the province to defer a decision on cap-and-trade and still retain its leadership position. In a 2014 report, the provincial environment commissioner Gord Miller was critical of the government's record stating: "instead of continually talking about closing coal-fired plants, the province should have been looking at measures such as electrifying transit and putting a plan together to price carbon" (Brennan, 2014).

While Ontario initially engaged in policy transfer and cross-jurisdictional learning on California's LCFS, officials in the energy department provided several reasons it was dropped, including questions about whether the policy would create local economic development opportunities in the province and continued controversy around the actual GHG reductions provided by fuels like ethanol (ECO, 2013). Provincial officials interviewed for this study also noted that the government had already passed a regulation requiring five per cent renewable

content in gasoline in 2007 and were continuing to work on mandating renewable content in diesel that would meet or exceed the federal government's requirements.

Ironically, Ontario did get new vehicle emission standards when the Canadian federal government adopted them even though it was the only California-inspired policy the province opposed. However, Ontario was more concerned about a provincial patchwork of standards across the continent, as opposed to the exact content of the policy, and supported the federal government adopting a national policy. As one climate change official in Ontario described: "For us, it was: 'The feds are going to do it; we won't kick up a fuss'. Our auto industry was on board with it. So I don't believe there were any significant discussions with other jurisdictions. It was kind of regarded as a done deal and we were okay with it".

While Ontario was unable to adopt policies like cap-and-trade and the LCFS which were driven by California, the provincial government did follow the state and BC by setting up the CCS in the cabinet office, under pressure from environmental groups to learn from these leading jurisdictions in a process of activist-driven emulation (Hoberg, 1991). However, interviews with several policy officials that were members or dealt with the CCS indicated it did not live up to initial expectations. While many factors, including the controversy surrounding the salary and performance of the organization's head, clearly played a role, the CCS' problems could also be looked at as a case of incomplete transfer (Dolowitz & Marsh, 2000) because there were important aspects of the governance model in California and BC that Ontario did not adopt. Ontario did not create a cabinet committee on climate change, while in BC Premier Campbell not only created a dedicated committee at the highest level of government, but chaired it himself. The CCS initially reported through a committee of deputy ministers and the premier and cabinet were kept up to date on the file through the cabinet secretary.

CAS staff in BC worked directly with the premier and cabinet and the rest of government knew they had the support of the political level behind them. In Ontario, without this commitment at the highest political level, the CCS was more of a manager of the climate change file than a unit that could drive the agenda. One close observer of the climate change file in Ontario indicated the CCS could not ‘crack the whip’ to get compliance from responsible departments, particularly larger departments like energy where reducing GHG emissions was one of several priorities being pursued. Without also adopting the cabinet committee and having direct involvement from the premier, Ontario did not replicate all of the elements that made the BC example successful and therefore it did not meet the expectations of its proponents.

Conclusion

Ontario moved aggressively on climate change as the federal government abandoned Canada’s Kyoto plans. But when the economic recession hit, the province was unwilling to follow through on policies which could create new costs or further damage the economy. In addition, much of the province’s motivation was to protect provincial interests and prepare for national and continental policy and; as a result, when the momentum around climate change in North America dissipated, so did Ontario’s desire to be a leader. Thus Ontario’s storyline (Blatter & Markus, 2014) on climate change shifted overtime from national champion to cautious observer. The province’s recent decision to join California and Quebec in WCI’s carbon market, making good on its original commitment, may go some way to restoring its reputation as Canada’s de facto national leader. The next chapter focuses on BC, another province which played a leadership role on climate change in Canada but as a province on the west coast of the country had a unique experience in developing policy compared to Ontario and Quebec.

CHAPTER 7

HOW BRITISH COLUMBIA BECAME “HOLLYWOOD NORTH” ON CLIMATE CHANGE

Early in 2007 the BC Liberal government, under Premier Gordon Campbell, surprised the entire province by delivering a throne speech that outlined a bold new agenda on climate change. Seemingly overnight, Campbell, who to that point had been more concerned with managing the economy and reducing government spending than environmental issues, moved BC from a laggard on climate change to a leader in Canada and North America. While many subnational governments in North America were contemplating action on climate change at the time, BC managed to go further and faster than almost any other state or province on the continent and earned the province and Campbell an international reputation as a climate change trailblazer.

Campbell drew on the example of California and Governor Arnold Schwarzenegger, who had recently announced a new climate change agenda which had resurrected his political fortunes ahead of the 2006 gubernatorial election, to build BC’s climate change plan. Emulating California also led BC to collaborate with other Canadian provinces like Manitoba, Ontario and Quebec, which were also following the state’s lead. This chapter investigates the influence of California on BC policy development, including how Campbell employed examples from the US state to frame the new direction on climate change in a way that was palatable to his fiscally conservative government and the rest of the province and how BC policy makers engaged in policy transfer, borrowing and learning from the policy template developed in the state.

BC's road to becoming Hollywood North

In the first half of the 2000s, Campbell and the Liberal government were not known as leaders on climate change. The Liberal party is the business-oriented option in BC, with a weak Progressive Conservative party, while the NDP represents the left-of-centre choice which has traditionally pushed for more environmental regulation. Campbell had joined with other Canadian premiers in 2002 to reject the federal government's participation in the international Kyoto agreement and demand further consultation with the provinces. After the federal government ratified Kyoto, despite the protest of most provinces, the BC government developed a climate change strategy primarily to ensure the province would not face new costs as a result of the agreement (British Columbia Ministry of Water, Land and Air Protection, 2004).

The momentum around climate change that was building throughout 2006 drew Campbell's attention and, in what has now become lore in BC government circles, the premier returned from vacation at the end of December determined to chart a new course for the province on the issue. Campbell's leadership was instrumental to the new policy direction¹¹ as bold action on climate change had not been part of the Liberal's agenda in the 2005 election and, as one policy maker with intimate knowledge of the government's decision making process noted, there was real concern that the party did not have a mandate to take the province in this direction.

The motives for what many policy makers, who were interviewed for this study, referred to as Campbell's "conversion on the road to Damascus" or "finding religion" on climate change have been much discussed in the province. Harrison (2012a) notes that several different factors contributed to the premier's decision including a trip to China which demonstrated the severity

¹¹ For accounts of Campbell's leadership in adoption of the BC carbon tax see Harrison, 2012a.

of air pollution problems, a focus on legacy issues after winning his second term in government, reading books on climate change during the Christmas vacation and the recent birth of a grandchild. BC was also positioned to take advantage of the potential shift to a green economy with most of the province's electricity coming from low-emitting hydro generation and large forests which could generate offsets to be sold into emerging regional or national carbon markets. Finally, the mountain pine beetle infestation and continued forest fires had also caused significant damage to the province's forestry industry for several years providing first-hand evidence to British Columbians of the costs of climate change.

Campbell was also inspired by the recent re-election of California's Republican Governor Arnold Schwarzenegger. The former movie star had been facing low public approval ratings leading up to the election and his aggressive stance on climate change, which appealed to moderate voters and environmental groups, had been credited with the reversal of his political fortunes (Mazmanian, Jurewitz, Nelson, 2008). Campbell spoke with Schwarzenegger on the phone at the end of 2006 and sought advice on how the governor had tackled environmental issues as a right-of-centre politician ("B.C.'s premier", 2007).

Shortly after Campbell and Schwarzenegger's conversation, the top environmental advisor from the California Governor's office was sent to BC to help develop the province's climate change plans. According to a BC official that worked extensively with California officials, they provided advice on setting targets, the need to put a price on carbon, the benefits of managing the initiative centrally with a strong political commitment and the importance of a regional approach which would allow actions to grow and provide support from partner jurisdictions. The foundation of BC's plan was developed in relative secrecy without widespread

consultation, although the premier did hint to the media that climate change policies were under consideration (Barrett, 2007a).

The outline of the plan was developed quickly and the dramatic policy turn was officially announced with the February 2007 throne speech. The influence of California was immediately clear as the province committed to GHG reduction targets of 33 per cent below 2007 levels by 2020. While these goals were different than California's commitment of returning emissions to 1990 levels by the same time, it went much further than the intensity goals set by the Canadian federal government that year. Several of the key initiatives announced by the government were also inspired by California policies. BC committed to adopting the California standards for vehicle emissions and plans for a low-carbon fuel standard similar to what was under development in the state were also announced. The BC government also indicated that it would work with California to explore a regional carbon trading mechanism to help drive GHG emission reductions among participating jurisdictions.

The BC throne speech also outlined collaboration with California on several other initiatives including infrastructure for a hydrogen highway and a system of green ports along the west coast. The government promised to adopt a green building code which was already in place in many jurisdictions including California and a requirement that 90 per cent of electricity used in the province would be low-emitting, similar to the renewable portfolio standards adopted by many US states. Other initiatives included requirements that all electricity generation in the province would contribute net zero emissions by 2016, all future emissions at coal plants be sequestered, emissions from the oil and gas industry would be reduced to 2000 levels and the provincial public sector would be carbon neutral by 2010.

Shortly after the throne speech, Campbell formed a cabinet committee on climate action supported by a dedicated unit, the Climate Action Secretariat (CAS), located in his office. The committee resembled the one Schwarzenegger had established in his administration in 2005. Both committees were tasked with driving and managing the development of policy and legislative actions across government to meet the newly established targets. The BC committee was chaired by the premier and, as one BC official who worked on the file pointed out, this meant the committee functioned as the primary decision-making body on climate change even though actions had to be formally approved by the entire cabinet and major decisions were frequently reviewed by the Liberal caucus. California's Climate Action Team (CAT) was headed by the Secretary of the California Environmental Protection Agency and initially issued policy recommendations to the governor and state legislature before being tasked with overseeing implementation of the government's climate change initiatives and providing biennial progress reports (California Action Team, n.d.).

While Campbell and the government remained tight lipped on the assistance it was receiving from California leading up to the throne speech, once the plan was public the premier organized and participated in a host of high profile meetings, announcements and photo sessions with Schwarzenegger to bring positive public and media attention to the file. Campbell flew to California in March and Schwarzenegger paid a return visit to Vancouver in May where he and the premier signed an MOU pledging to work together and share information on climate change policies. BC also reaffirmed its commitment to work with California on carbon trading and was the first Canadian province to join the Western Climate Initiative. At the beginning of August, Campbell was front and centre again as he hosted representatives from WCI jurisdictions in Vancouver to develop regional GHG emission reduction targets for the group.

In the fall of 2007 *The Greenhouse Gas Reduction Targets Act* was passed putting BC's GHG emission reduction targets into legislation and requiring public reports on progress every two years, which were also key features of California's 2006 *Global Warming Solutions Act*. Following the example of California helped the BC government build support in the province for its new climate change agenda. Environmental groups had been pushing for a California-style plan since they had heard rumblings that a new climate change policy was in the works (Barrett, 2007a) and after the throne speech the opposition NDP expressed concern that the government would not follow through on its commitments (Barrett, 2007b). Environment Minister Barry Penner confirmed in an interview that feedback after the initial announcement of targets earlier in the year pushed the province to follow California's lead and commit them to legislation ("B.C. to put", 2007).

Harrison (2012a) notes that although groups like the BC Business Council were shocked by the throne speech and concerned about a lack of consultation, resistance to the premier's new policy direction from the business community was fairly muted. Even the oil and gas industry, a large source of GHG emissions in the province which would almost certainly face increased costs from new regulations, appeared resigned to some form of action on climate change and indicated it was prepared to work with the government ("B.C.'s green plan endorsed", 2007).

One of the reasons business did not push back harder was that Campbell and the government framed the issue as an economic opportunity and highlighted the benefits of moving towards a low-carbon economy. In doing so, the government relied on policy analysis conducted in California. The provincial action plan, released in 2008, cites a study by the University of California, Berkeley which estimated that the state's climate change actions would produce

significant economic growth and thousands of new jobs, and suggests BC's economy would experience something similar (Roland-Host, 2006).

A flurry of policy activity

The 2008 throne speech, delivered in February, reaffirmed the government's commitment to its climate change agenda and outlined an aggressive legislative session for the spring, including three pieces of California-inspired legislation. *The Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirement) Act* established the legislative authority to create a low carbon fuel standard. Similar to California, the BC standard set a requirement for a 10 per cent reduction in the GHG emissions produced per unit of fuel by 2020. *The Greenhouse Gas Reduction (Vehicle Emission Standards) Act* created the authority to adopt vehicle emission standards equivalent to those developed in California. BC also adopted enabling legislation for a cap-and-trade system to support the province's participation in WCI. The legislation provided the authority to enact the system and develop regulations on reporting, compliance and enforcement, trading carbon credits and purchasing offsets.

While California's fingerprints were all over BC's legislative framework, the province also adopted a broadly-based, revenue neutral carbon tax which was not borrowed from the state. The idea for a carbon tax came from the Ministry of Finance, which proposed it to the cabinet committee on climate action (Harrison, 2012a) and was developed through a relatively secretive process by the premier, the finance minister and members of the Climate Action Secretariat. The premier did float the idea in a number of public forums and received support from environmental groups and, surprisingly, little opposition from business (Harrison, 2012a). The tax was a unique BC product in several respects, including its revenue neutrality, money generated by the tax

would be offset by cuts to personal and business taxes, and the decision to start with a low price and provide a schedule of increases over time.

Unlike the province's California-inspired policies, the decision to adopt the tax was based on advice and analysis from economic and climate change experts in the province. One policy maker involved with developing the tax noted that they did look at Quebec's small carbon levy, and several European jurisdictions which had put a price on carbon in some form. They suggested this scan was beneficial in demonstrating to cabinet and the public that BC would not be alone in putting a price on carbon, but no jurisdiction's policy provided a direct model for the province.

BC's partnership with California led to collaboration with other Canadian provinces through regional forums. Manitoba, Ontario and Quebec all followed BC in joining the WCI and the organization took the next step towards a regional carbon market by releasing common guidelines for developing a cap-and-trade program which would ensure the systems in each participating jurisdiction could be linked. Campbell also signed an MOU with Manitoba Premier Gary Doer committing their provinces to work together on the California initiatives they were pursuing. However, as one individual who worked on climate change in BC for over two decades described:

“In the Campbell period, the focus was pretty much entirely on the US, California in particular, but also the western states in WCI. At that time there wasn't a whole lot of productivity in the other provinces, some, but I think that BC politicians were very focused on what California was doing. Any time you took something to them it would be ‘well, what's California doing’. It wasn't ‘what's Ontario doing’, they just didn't care to

the same extent about what the rest of the provinces were doing. So they tied themselves pretty strongly to this whole western states initiative, California, Washington and Oregon. There were still discussions or conversations that went on with the provinces, but the focus was definitely towards the US and California.”

BC and California extended their collaboration beyond cap-and-trade through the Pacific Coast Collaborative, which also included Washington, Oregon and Alaska, to areas like energy, transportation, innovation and the green economy and ocean health. In November, Environment Minister Barry Penner attended a climate summit hosted by Schwarzenegger in California. The summit brought subnational and national actors together in an effort to build momentum towards the 2009 UN conference in Copenhagen where a successor to Kyoto was expected to be signed. While MOUs and joint statements are often largely symbolic, one provincial official interview for the study suggested, it was “quite bold” for the province to be signing agreements and making policy proclamations with governors and jurisdictions outside Canada because international relations is usually considered the domain of the federal government.

Climate change continued to be an important issue in BC into the May 2009 provincial election. While the issue was somewhat overshadowed by the emergence of the global economic downturn and government’s plans to manage the economy, the carbon tax proved to be a wedge issue which helped return Campbell to power with his third majority (Harrison, 2012a). NDP leader Carole James had initiated a campaign to “axe the carbon tax”, arguing it was unfair to low-income families and gave a break to big business (Leyne, 2008). The position ended up splitting the NDP caucus and drew criticism from major environmental groups in the province, a constituency the party traditionally had relied on for support (Harrison, 2012a). While the carbon tax was not a California initiative, its role in the Liberal victory validated the strategy Campbell

borrowed from Governor Schwarzenegger by demonstrating that a fiscally conservative government in North America could address climate change and still achieve political and electoral success.

After the election, the cabinet committee on climate action remained and continued to be chaired by the premier; however, with the committee's original purpose of building the province's climate change plan largely fulfilled and the government's focus shifting back to the economy, its purview was expanded to include promotion of clean energy and the low-carbon economy. A new position of Secretary of State for Climate Action was created to ensure that climate change was still represented in cabinet and John Yap, MLA for Richmond-Steveston, was named to the position. Provincial officials who worked on the file during the transition noted it was valuable having a single point person to work with as the cabinet committee wound down.

In the fall of 2009, BC took the next step towards a cap-and-trade system by enacting a GHG reporting regulation requiring all facilities in the province emitting over 10,000 tonnes of carbon annually to track and disclose their emissions to government. This followed a regulation passed a year earlier governing how carbon offsets would be treated under the system. Both regulations were developed in concert with BC's work in the WCI and were designed to be integrated with the larger regional market. To share the work that BC had done, Campbell attended the second global climate summit in Los Angeles where he signed a declaration with other subnational leaders pressuring national governments to adopt a successor to Kyoto at the upcoming Copenhagen conference. Campbell also attended Copenhagen itself where he shared and promoted BC's actions and was the keynote speaker at a session on international carbon markets.

At the end of 2009 BC's low-carbon fuel standard regulation was enacted with the start date set for 2012. Even though the LCFS was originally inspired by California's standard, the details of BC's regulation were notably different from that of its American counterpart. The California standard assigned a higher number to gasoline coming from the Alberta oil sands, which has a greater GHG intensity than fuel from conventional oil. The industry in Alberta was opposed to California's version of the policy, arguing it unfairly discriminated against heavier crude products from the province (McCarthy, 2009). As a large portion of gasoline in BC comes from Alberta, BC got around this issue by established one average carbon intensity value for all fuel products to ensure oil sands producers would not be singled out. Environmental groups complained that the BC policy gave the Alberta oil companies a break and would be insufficient to spur investment in clean fuels (Dembicki, 2011), but ultimately, the BC government decided to reduce the overall burden on oil sands producers and ensure the cost of gasoline did not rise.

BC also continued to work with California on emissions standards for vehicles. Unlike, the LCFS, BC followed California's legislation closely by establishing an average fuel efficiency requirement for manufacturers allowing them to sell vehicle models above the standard as long as overall efficiency targets were met, as the US state had done. BC began developing a regulation to put the standards in place but indicated it would only come into force when California's requirement took effect as the legal battle with the Bush administration in the US was still before the courts. BC and California signed an MOU in December 2009 committing to maintain pressure on their respective federal governments to adopt the standards nationally (Pacific Coast Collaborative, 2010), which eventually occurred in 2010 when both countries released common vehicle emission standards, following the California model, creating one harmonized North American policy.

BC's momentum on climate change diminishes

Throughout 2010, the BC government continued work on cap-and-trade. In the fall, the government held public consultations with industry on a proposed regulation to govern the trading of emissions credits among those participating in the system. In July, the WCI released its program design document which laid out the strategy to implement the carbon market and achieve the regional targets. However in the fall, all the American states except California indicated they would not participate in the cap-and-trade program and concerns emerged that Manitoba and Ontario would not meet the scheduled start date of 2012. States and provinces had been hit hard by the economic downturn and many had new political leadership which was less enthusiastic about an aggressive stance on climate change. It had also become clear that a national or continental carbon market was not going to develop as the US Congress failed to pass cap-and-trade legislation. Many jurisdictions participating in WCI expected that a national system was coming and began to re-evaluate their involvement when that did not occur (Harrison, 2013).

On November 3, 2010 Campbell announced he would resign as premier as the Liberals had dropped in the polls after an unpopular decision to bring in a harmonized sales tax. Two months later, Schwarzenegger left the governor's office in California, after finishing his term with a similarly low approval rating. In February 2011, Christy Clark was elected as the new leader of the Liberal party and became BC premier. Clark's government was committed to the development of a liquefied natural gas industry in the province and the desire to be out in front on climate change with jurisdictions like California quickly disappeared. BC gave no indication it would participate in a carbon market as the 2012 start date came and went and opted to freeze the carbon tax at 2012 levels, despite recommendations from the province's climate change

advisory panel that to be effective it should continue to increase (2008). That same year Clark openly mused that the province's GHG targets may have to change to accommodate plans for the development of the LNG industry (Hunter, 2012).

Campbell's climate change agenda and BC's close relationship with California was dealt a significant blow when he left government and the new leader has not reconciled the province's GHG reduction targets with plans for large-scale expansion of the LNG industry. However, much of the policy architecture that was put in place has remained despite the change in leadership and an economic downturn that wiped out momentum on climate change in most North American jurisdictions. While the carbon tax was reviewed and further increases rejected, it has not been repealed even though no other jurisdiction followed BC's example. The province has not moved forward on cap-and-trade but it should be noted that there is some overlap with the carbon tax as both place a carbon price on much of the province's economic activity. Vehicle emission standards represent the most successful example of BC leadership as the province was one of the early adopters that helped catalyze a national policy. The LCFS, while not as successful in spreading to the rest of North America, has not been abandoned by BC.

Explaining BC's climate change policies and the influence of California

California's influence on BC climate change policy was a key factor which determined the instruments that the province chose and helped the province to become "Hollywood north" on climate change. While Campbell's leadership was essential to BC's action on climate change, collaboration with California was an instrumental component of the premier's strategy which allowed him to move the province forward and the state provided a template which influenced policy design. One reason Campbell's strategy was effective was that the economic and political

conditions in both BC and California were similar. The jurisdictions have similar GHG emission profiles, the largest sources of carbon emissions are transportation and industry (Environment Canada, 2014; California Environmental Protection Agency, 2014), while politically the Republicans and the Liberals were the business-oriented party in a jurisdiction with relatively strong concern for the environment among the electorate (Lachapelle, et al., 2012).

Without the example of Schwarzenegger and California, Campbell may not have taken the risk of moving BC to a leadership position on climate change or been able to gain the support of his party and the province. One individual with over two decades of experience as an observer and practitioner of climate change policy in BC stated:

“I think Campbell saw what it [action on climate change] did in California for Arnold, a fundamentally conservative right wing leader. That showed you could take on the issue and as long as you had the backing of your constituency you could take it on without fear really. It was like the ‘only Nixon could go to China’ argument. People speculated about different reasons but I think certainly he saw it as both the right thing to do and politically a good thing to do. You kind of have to line those things up or you’re just falling on your sword.”

By employing the example of California, Campbell and the Liberal government were able to mollify political pressure (Bennett, 1991a) by demonstrating to environmental groups that they were serious about taking action on climate change. Working with a state that could influence North American markets and policy was also important to business in the province because, as one policy advisor interviewed for the study quipped, the province could “set the table, rather than just sit at it” when it came to national and continental policies.

Campbell's personal relationship with Schwarzenegger also paid political dividends for the premier and helped gain support domestically for climate change policies. As one BC climate change official joked: "it was a luxury to have a literal movie star on board". Campbell's association with the California governor helped him become an international climate change leader in his own right as the province joined organizations like WCI and the International Carbon Action Partnership (ICAP), an organization dedicated to sharing information on carbon trading internationally. A policy official who worked on BC's international engagement during the peak of momentum on climate change noted that working through international organizations had the salutary political benefit of allowing the premier to appear as a statesman and international leader, rubbing elbows with high profile leaders from around the world.

The amount of climate change legislation developed and passed in BC within a short period of time, eight pieces of legislation and supporting regulations in two years, represents a remarkable commitment and effort from the entire government. As one member of an environmental organization in the province noted: "getting one piece of legislation on the legislative agenda on short notice is not simple, but to get eight or nine moving requires an entire refocusing of the bureaucracy". One of the ways the government was able to achieve this was to borrow several California initiatives, in a process of policy transfer, and learn from policy design work done in the state.

In the case of vehicle emission standards, BC essentially mirrored or copied (Dolowitz and Marsh, 2000) California's policy. The 2007 throne speech, which announced the standards, indicated that the compatibility of the two jurisdictions' policies was critical to their success and the legislation passed a year later created the authority to establish an equivalent requirement. More than one BC policy maker that worked on climate change and had knowledge of the

decision-making process around the standards indicated the province sought to replicate California's policy because the automobile market is integrated across North America and the province's small population made it difficult to adopt BC-specific standards, highlighting the influence of "the California effect" (Vogel, 1995; Harrison, 2012b). By adopting the standards proposed by California, BC aligned with an actor representing a large market that carried significant weight with the auto-manufacturing industry and had the capacity to influence North American policy.

BC policy makers followed California's lead in establishing GHG emission reduction targets in legislation and committing to report on progress every two years. However, BC emulated California's policy, adapting a policy in another jurisdiction to fit local circumstances (Dolowitz & Marsh, 2000), since the actual number of reductions they prescribed was different. The low-carbon fuel standard provides another example where BC policy makers borrowed an idea from California but the details of the two policies diverged, largely due to differences in the jurisdictions' economies and fuel supply chains. BC's targets and LCFS policy suggest that often policies are not so much transferred as reproduced in another context where local factors continue to influence their development (Massey, 2009).

In pursuing cap-and-trade, BC worked collaboratively with its WCI partners to establish common guidelines for developing policy in each jurisdiction, rather than adopting a template from California. Policy makers in BC and California who worked on cap-and-trade indicated that while California was the key player, BC played an important role in the development of WCI and design of common guidelines. BC did all the domestic policy work necessary to participate in the regional market including passing legislation, consulting and drafting regulations. Despite BC's initial leadership on cap-and-trade, it did not join Quebec and California in 2012 when the

system opened; highlighting that transfer of ideas and knowledge through inter-jurisdictional arrangements is much more frequent than the transfer of policy (Stone, 2012).

Under Clark cap-and-trade was effectively shelved as the government was reticent to adopt any policies that could negatively affect development of the LNG industry (Hoekstra, 2013). Another reason the province deferred on cap-and-trade was that it had already put a price on carbon through its tax which covered some of the emissions that would fall under the system. One high level policy maker who had a hand in major policy decisions suggested that BC preferred the carbon tax approach because it could be administered simply through the gas tax system and applied consistently across different sectors and groups, while cap-and-trade required a new administrative bureaucracy to operate the system and ensure its efficiency and fairness. BC's decision to adopt a carbon tax instead of cap-and-trade represents a case of inspiration (Dolowitz & Marsh, 2000) because California's example clearly helped motivate the province to act; however, the instrument BC selected was not the same as that chosen by the state.

Although BC did not participate in the WCI carbon market, it worked with California and other jurisdictions to develop common GHG measurement, verification and reporting tools. As one policy maker who worked extensively on cap-and-trade in BC indicated:

“There was a huge amount of work on cap-and-trade, which was effectively dealing with a regulation for large industries. Even jurisdictions which are not doing cap-and-trade did a lot of the collaborative work. For example, by moving through the cap-and-trade process the bar was raised significantly in terms of reporting requirements for large emitters. We've largely maintained those and we've kept them consistent. The US EPA

has even adopted a lot of the reporting requirements that came out of WCI, many of which were written here in BC.”

With the legislative foundation for cap-and-trade in place, BC is also in a good position to join the market if it should decide to in the future.

Campbell also looked to Schwarzenegger’s administration as a model when organizing the political and bureaucratic resources of his government to drive and manage the climate change file. Campbell’s decision to establish and chair a cabinet committee on climate change has been noted by many interview subjects, both inside and outside government, as a crucial factor in successfully developing and putting in place an aggressive suite of policies involving multiple departments. One policy maker who worked on climate change when the unit was established explained:

“The way the Secretariat was set up was good. The idea was that it was in the Office of the Premier to give it the necessary cache. They also set up a cabinet committee on climate action that was chaired by the premier. So all the different ministries had to go through that committee and if you were not doing something, you knew you had a date with the premier in two or three weeks’ time, so that really helped get the cross-government ball rolling.”

Campbell had a reputation for operating a centralized cabinet and managing priority initiatives through his office and a similar structure was used to undertake a comprehensive review of core government services when he was first elected (Ruff, 2005). However, a BC policy maker who worked extensively with California suggested state officials provided the insight that this approach was necessary for managing a complex file like climate change; it

needed to be run centrally through a high level committee, like the Climate Action Team in California, to achieve success.

A cabinet committee chaired by the premier was unique compared to most other provinces and the Canadian federal government and signalled to the provincial public service that BC was stepping outside the modus operandi of climate change policy in Canada. A BC policy maker who worked on the climate change file noted that officials in other Canadian provinces often looked enviously at the high level commitment to climate change in BC and the access public servants working on the issue had to the political centre. Campbell's personal commitment to the file, and the relationships he developed with leaders in other jurisdictions, assisted BC public servants in working with their counterparts in other provinces and states. The same policy maker noted that, if they needed to move quickly on an issue involving another jurisdiction, the premier could make contact with the political leadership there which would pave the way for administrative cooperation.

Conclusion

While the personal leadership of Campbell was instrumental in driving an ambitious policy agenda, BC's storyline (Blatter and Markus, 2014) on climate change would not be complete without including the role of policy transfer. The province would not have been able to go as far and as fast as it did without the example of California. Campbell relied on California's example to build support for action on climate change in the province and the government was able to put an ambitious policy agenda in place in a short period of time by copying and adapting many initiatives that had been developed in the state. The next chapter discusses the experience

of Manitoba, another province which looked to adopt several California-inspired policies as part of its response to climate change.

CHAPTER 8

MANITOBA: “PUNCHING ABOVE ITS WEIGHT” ON CLIMATE CHANGE?

In 2008 Manitoba became the first jurisdiction in North America to make a commitment in legislation to meet greenhouse gas (GHG) emission reduction targets set by the international Kyoto agreement. Manitoba had been an early supporter of the agreement and had developed a reputation as a leader in North America by working with subnational trailblazers like California, British Columbia and Quebec. When introducing Manitoba’s new legislation, Premier Gary Doer was so confident in the province’s ability to lead on the file that he suggested the government should be defeated in the next election if the target was not met (Turenne, 2008).

Despite the premier’s bold statement, Manitoba was unable to live up to its lofty ambitions as three years after the climate change legislation was introduced the government had to admit that the targets would not be achieved (Prystupa, 2011). By this time Doer had left provincial politics to become the Canadian ambassador to the US and the economic downturn in North America had dampened enthusiasm for strong action on climate change in Manitoba and elsewhere. While the government was able to implement some parts of its climate change agenda, such as downgrading the remaining facility in the province burning coal for electricity to emergency-use only, the more aggressive initiatives which it had committed to through partnerships with other jurisdictions were consigned to the policy dustbin.

Manitoba’s policy response to climate change raises several interesting questions. Why did a small province, which makes up approximately three per cent of Canadian GHG emissions (Environment Canada, 2014) and an miniscule portion of North American emission levels, go out on a limb to set a policy agenda that would keep pace with other subnational leaders, and

why did it have such difficulty following through on these commitments? This chapter examines the development of climate change policy in Manitoba with particular focus on its collaboration with other leading jurisdictions in North America and the influence of policies developed abroad to answer these questions.

With vast hydroelectricity resources coming from the province's northern rivers, Manitoba was well-positioned to reduce its emissions and benefit from the shift to a low-carbon economy in North America. One policy maker who played an important role in developing the province's climate change strategy stated: "Manitoba's vision for climate change was also a vision for Canada and beyond". As a small jurisdiction, Manitoba's ability to influence and shape policy on a broader regional or national scale is limited and the province frequently sought to engage other likeminded jurisdictions to increase its influence and effectively "punch above its weight" (Thomas, 2008) on climate change.

Manitoba jumped on the bandwagon of subnational jurisdictions taking action on climate change, led by California, and engaged in policy transfer by looking to adopt initiatives which had originated in the US state and appeared poised to spread across the continent. However, with the onset of the North American economic downturn in 2008, the failure of national policies and the realization that regional policies may not reflect provincial interests, the province began to view its aggressive stance on climate change as a liability rather than an opportunity. The government eventually abandoned many of the policies to which it committed.

Manitoba's response to climate change

Manitoba got a head start on most other provinces in addressing climate change by commissioning a high profile task force in 2001, chaired by former federal Minister of Foreign

Affairs Lloyd Axworthy, which consulted with the public, stakeholders and experts to provide recommendations on how the government should respond to the issue. The result was a government strategy document which indicated the province could meet and exceed its portion of Canada's international targets, largely through its renewable energy sector. Manitoba also sought to influence the Canadian federal government's position by suggesting that the provincial plan should be used as a template for a national strategy (Manitoba Conservation, 2002).

With its hydroelectricity resources, Manitoba sought to become a low-carbon energy provider in Canada and North America and the emergence of climate change as a high profile issue provided an opportunity to share this agenda with the rest of the continent. In Canada, a national climate change strategy that required emission reductions across the country could create new demand for low-emitting sources of electricity generation, such as hydro, in large markets like Ontario. At the same time, the province was pushing the federal government to support an east-west power grid that would increase transmission capacity between the provinces and allow Manitoba Hydro, the provincial crown corporation responsible for electricity, to export power to its neighbours (Manitoba Legislative Assembly, 2004).

Export markets for hydroelectricity were not the only consideration that caused Manitoba to act on climate change. The province had also felt the effects of a changing climate in several tangible ways which increased the salience of the issue in the public and among politicians. The 1997 Red River "flood of the century", which caused significant damage of property and resulted in the Canadian military being called upon to evacuate stranded residents, was still fresh in people's minds and flooding across the province was becoming an annual occurrence. The province is also home to a significant tract of boreal forest, which was threatened by a changing climate, and many policy makers interviewed for this study suggested this was an important

conservation issue for the premier and government. One policy maker summed up the sentiment within government by saying that because Manitoba was particularly vulnerable to the impacts of climate change the province could not just “rest on its laurels” and wait for the federal government or someone else to do something.

As a small jurisdiction that is not particularly wealthy, Manitoba does not carry the same weight in national policy discussions as larger provinces like Quebec, Ontario or Alberta. To build momentum and gain a seat at the national table the province frequently looks for likeminded provinces with which it can collaborate (Thomas, 2008). Manitoba found a natural partner on climate change in Quebec, another province with large hydro resources. Quebec had also supported Kyoto, and Doer already enjoyed a close relationship with the province’s premier Jean Charest. In 2005, Doer joined Charest in hosting a summit of subnational and regional governments as part of the UNFCCC Conference of the Parties (COP) in Montreal to express the important role that subnational and regional governments had to play in addressing climate change.

In early 2006, after the newly-elected federal Conservative government signalled they would not attempt to meet Canada’s Kyoto targets, hope for a national solution to climate change that even remotely resembled Manitoba’s vision dimmed. Still looking for allies that shared its vision of a low-carbon North American economy, Manitoba began to focus its attention south of the border to US states also facing a federal government that had rejected Kyoto and was not inclined to act on climate change.

Through events like the Montreal Summit, Doer had developed a relationship with California Governor Arnold Schwarzenegger. The former movie star invited the Manitoba

premier to attend the signing of California's landmark *Global Warming Solutions Act* in September 2006, which set state-wide GHG emission reduction targets. A few months later Doer led a three day provincial trade mission to California where climate change was a key topic on the agenda. During the mission the premier and Schwarzenegger signed an agreement on climate change in which Manitoba committed to adopt GHG reduction targets in legislation, as California had done. In return the province stood to gain from several economic opportunities, including participation in a California carbon market which would allow businesses in the province to sell credits for reducing emissions into an economy roughly the size of Canada.

In the spring of 2007, with Doer and the NDP recently returned to government with their third straight majority, Manitoba became the second Canadian province after BC to formally join the California-led Western Climate Initiative (WCI). Notwithstanding the economic benefits Manitoba could accrue by accessing a large regional market, participation in WCI allowed the province to be part of an initiative which could pressure federal governments in the US and Canada to consider national or continental carbon trading policies. To this end, Manitoba was also part of the block of Canadian provinces, including Ontario, Quebec and BC, which sought to continue discussions about national climate change policies and provide an alternative to the Harper government's "Turning the Corner" plan at the 2007 meeting of the Council of the Federation (COF).

While the provinces were unable to reach agreement at the COF, momentum on climate change continued building across North America in 2007. In the US it spread beyond the "usual suspects", like California, to parts of the country that were traditionally less receptive to these issues. Doer attended a summit hosted by the Midwestern Governors Association, which included Wisconsin, Kansas, Minnesota, Illinois, Indiana, Iowa, Michigan, Missouri and Ohio,

where regional agreements on renewable energy and climate change were signed. The new agreements built on work done through The Legislators' Forum, a group of legislators from upper Midwest states and Manitoba that came together to address climate change and regional environmental issues after the devastation of the 1997 Red River Flood.

Manitoba worked with Midwest states because of its concern about the impacts of climate change in the region, but it also had an interest in promoting the province's hydroelectricity as a means for these states, which largely rely on burning fossil fuels for electricity, to reduce their emissions. Many Midwest states had set renewable portfolio standards (RPS) which stipulated a certain percentage of their electricity supply come from renewable sources. These targets created the potential for an expanded market for Manitoba hydroelectricity. While the details of state RPS's frequently deemed large-scale hydro from Manitoba ineligible to meet their requirements, the province was still able to sign long-term contracts to export hydro with several power producers in Minnesota and Wisconsin.

Manitoba's climate change strategy

The climate change partnerships that Manitoba collected throughout Canada and the US not only allowed the provincial government to promote its interest abroad, but also helped its efforts to take action at home. In the fall of 2007 the province hosted a climate summit with Doer, BC Premier Gordon Campbell and Arizona Governor Janet Napolitano as the keynote speakers. The goal of the three day conference was to kick off development of an updated climate action plan for Manitoba, and provincial businesses, community groups and aboriginal leaders were all in attendance to provide input and generate momentum. At the conference, Doer and Campbell signed a memorandum of understanding on climate change committing to share

information on the initiatives both were pursuing as part of their work with California and the WCI. At the event Doer stated: “we’re sharing experiences...we’re into what we can do to make a difference to our planet” (“B.C., Manitoba”, 2007).

The Manitoba Government’s Department of Science, Technology, Energy and Mines (STEM) was tasked with developing the province’s new climate change strategy. About nine staff made up the climate change unit which was co-located with the energy and innovation files to coordinate the components of the government’s low-carbon energy agenda. One policy maker who worked on climate change at the time indicated a large-scale consultation on GHG targets and supporting actions was not undertaken as the government deemed the work of the 2001 task force, which involved extensive consultation across the province, to still be relevant.

In the spring of 2008 the government released *Beyond Kyoto*, an updated climate change plan, and shortly thereafter introduced *The Climate Change and Emissions Reduction Act*. The act enshrined the province’s Kyoto targets in legislation and required the province to meet an interim target for 2010 and periodically report on progress, reflecting the influence of California’s approach and making good on its MOU with the state. While many jurisdictions adopted more modest targets, Manitoba stood by its commitment to Canada’s aggressive Kyoto goals which meant it had to reduce a larger share of its emissions in a shorter period of time than places like California and BC.

The cornerstone of the province’s climate change strategy was reducing coal use in the province. The government committed to ending coal burning at Manitoba Hydro’s Brandon Generating station, the last remaining coal facility in the province, except in emergency situations. Transitioning a large facility off coal was a relatively straightforward and cost-

effective way to achieve emission reductions in the province but represented a small enough portion of total generation capacity that it could easily be replaced by other sources. A senior public servant in Manitoba suggested the move also solidified Manitoba Hydro's reputation as a provider of low-carbon electricity which the province deemed important in marketing the crown corporation to other provinces and US states. Manitoba Hydro had successfully eliminated coal use at its Selkirk facility earlier in the decade and tackling the Brandon plant meant it could boast to its clients it had virtually eliminated large-scale coal burning for electricity in the province.

The government also announced a carbon tax of \$10 per tonne for those using more than one tonne of coal annually in the 2008 provincial budget. As the amount of coal use in Manitoba is small, the tax would only apply to two companies once the Brandon plant's transition was complete. In addition, the tax was not scheduled to take effect until 2011 which gave those facilities ample time to adjust their operations and the province committed to helping them transition to alternative energy sources.

Environmental groups in the province who had hoped for more aggressive measures were quick to register their disappointment given the amount of noise the government had made around climate change in the last year, with one advocate calling the tax a "baby step". ("Critics find little to cheer", 2008). In an interview leading up to the provincial budget STEM Minister Jim Rondeau indicated that the government was not interested in pursuing a carbon tax similar to BC or Quebec's which covered transportation fuels ("No plans", 2008), suggesting it was not prepared to introduce any measures which could increase costs to consumers or were likely to create political backlash.

Manitoba also adopted a wait-and-see approach on the California initiatives to which it had committed. The province's new legislation established a Vehicle Standards Advisory Board (VSAB) to investigate whether Manitoba should adopt California vehicle emissions standards. Manitoba had already supported the standards through the WCI and COF but decided to engage in further study rather than following BC and Quebec, which were moving forward with legislation. Manitoba reiterated its commitment to cap-and-trade but also moved slowly compared to BC, Quebec and Ontario who began consulting with industry and putting foundational legislation in place shortly after joining WCI.

Manitoba was also exposed to debates about an LCFS through its involvement with California and Midwestern states, who were studying the impact of similar standards in the region. The policy was also included in the MOU Doer signed with Campbell. However, there was concern in the agricultural Midwest regarding how biofuels would be treated under an LCFS, particularly if the policy spread widely among subnational governments or was adopted federally. Rather than adopting a California-style LCFS in the province, Manitoba continued with its plans to establish mandates for ethanol and biodiesel. These plans, started in the early 2000s, sought to increase renewable fuel use while creating new markets for the agriculture sector, and established grant programs for biofuel producers in Manitoba to support the development of a local industry.

In addition to the coal strategy and the California initiatives, Manitoba sought to reduce emissions and spur economic growth by supporting the development of renewable energy sources like geothermal heating and wind. Other policies sought to address GHG emissions from the agricultural sector, the second largest source of emissions in the province, by providing incentives and training to farmers to reduce GHGs in their operations. To set a positive example

and reduce emissions in public sector operations, the government introduced fleet standards for government vehicles and a green building policy which mandated that all new buildings receiving public funding must meet specified efficiency standards. All told, the Beyond Kyoto strategy contained over sixty initiatives even though most of the planned emissions reductions came from a handful of actions (Office of the Auditor General of Manitoba [OAGM], 2010).

Managing Manitoba's plan

To manage the plethora of new initiatives under the province's climate change agenda a deputy minister green initiative committee (DMGIC) was established while the climate change unit in STEM continued to lead on the file. The committee consisted of the deputy minister of STEM, the Secretary of the Community Economic Development Committee (a powerful sub-committee of cabinet similar to a planning and priorities committees in many provinces), the Clerk of Executive Council, and the deputies of other departments which had responsibility for climate change initiatives (OAGM, 2010). The cross-government committee was set up to provide overall management to the file which involved many different departments to keep progress on track and ensure commitments were met.

The DMGIC was unsuccessful in fulfilling its purpose. The committee met infrequently, approximately every two months and, as a policy maker with intimate knowledge of the meetings indicated, it eventually just "fizzled out". There was difficulty ensuring attendance of all members; deputy ministers often appointed ADMs and directors to attend in their stead. The individual also suggested that with approximately sixty different initiatives being tracked and most making a negligible contribution to the province's targets, many deputy ministers had little

incentive to participate. The meetings tended to be long and focused on a level of detail which was typically handled by directors or ADMs.

When the DMGIC stopped meeting, the climate change branch was left to manage the file on its own. The branch undertook one-on-one meetings with the departments who were overseeing climate change programs to keep track of their progress and provide what support they could. A government official who worked in the branch described the situation:

“There was a point where we had closer political links to the Clerk of the Executive and to the Premier’s Office, but those links diminished over time. We became a bit more of an administrative organization running programs but less linked to some of the strategic policy areas on climate and we became a little bit more layered within the line department, with less access to senior people”.

Without high-level support in government the climate change branch, a tiny unit in an already small department, did not have the capacity to pull other larger departments or agencies along on their GHG reduction activities or bring them in line when it appeared they were lagging behind.

In August 2009 Doer announced that he was stepping down as premier and leader of the NDP party to become Canada’s ambassador to the US. In October Greg Selinger, the former Minister of Finance became premier and relocated the climate change branch from the energy department to the Department of Conservation under former federal NDP Member of Parliament and newly appointed provincial cabinet minister Bill Blaikie. Even though the climate change unit did not physically change locations, officials working on the file who were interviewed for this study noted it was more difficult to maintain integration with their energy colleagues once they were under different reporting structures. One of these officials also suggested that by this

time a perception had emerged within government that the file was problematic and the province was having trouble meeting its targets which made the branch's cross-government coordination role even more difficult.

By 2010 the wind had been taken out of the climate change sails in Manitoba. The economic downturn had dampened enthusiasm in the province for strong action on climate as the government launched a public consultation on cap-and-trade which indicated concerns from the public and business about the economic impact of entering into a carbon market (Manitoba Conservation, 2011). In addition, as the details of the WCI cap-and-trade program took form it became clear Manitoba would not receive credit for exporting hydroelectricity to other jurisdictions but would be required to pay for natural gas imports, which occurred in drought years when Manitoba Hydro's output was low. A climate change expert in the province suggested this was a strong contributing factor in Manitoba's decision to defer on cap-and-trade as it shifted the government's view of regional carbon trading from an economic opportunity to a potential liability. As a province with very few GHG emitters that would fall under a cap-and-trade system, Manitoba also had to weigh the costs of participation in a carbon market. This included the strain on provincial resources and the bureaucracy in developing and operating a system, with the impact on Canadian and North American GHG emissions.

Manitoba was not the only jurisdiction in North America having second thoughts about cap-and-trade. BC and Ontario were not in a position to meet WCI's planned start date and all the American states, except California, pulled out at the end of 2010. The Midwest states also showed no interest in moving forward with their system. With fewer participants in cap-and-trade, the potential for Manitoba to derive economic benefits diminished even though jurisdictions like Quebec and California were committed to moving forward. One person familiar

with Manitoba's experience on cap-and-trade also noted that with fewer participants it became more likely that the interests of larger jurisdictions could dominate those of a smaller player like Manitoba exacerbating fears about the economic risks of participation.

Part of Manitoba's motivation for joining WCI and US states was to pressure and prepare for a Canadian and continental carbon market, given that the Harper government had made it clear Canada's climate change policy would be aligned with whatever emerged in the US. A high level decision maker in the provincial government indicated that subnational action was not seen as enough on its own, but with sufficient popular support it was thought it would motivate the national government to take action. By the summer of 2010 it was clear that a national system in the US was not in the foreseeable future and when the US legislation died so did cap-and-trade at the federal level in Canada. With no prospect of a national system, Manitoba's participation in regional initiatives became even more difficult to justify.

Manitoba also continued to move cautiously on vehicle emission standards. The VSAB released its report in 2009 and concluded that the province should work towards implementing the California standards, but noted that it only made sense to do so in concert with other jurisdictions. This is exactly what occurred as the provincial government put off its decision on the policy and, after numerous states and provinces voiced their support for California, the Obama administration announced national standards similar to California's with the Canadian government following suit to create one harmonized North American standard.

Manitoba was successful with its coal-use strategy as Manitoba Hydro downgraded its remaining coal-fired station to emergency-use-only in 2010 and the coal tax came into effect at the beginning of 2012. The province also managed to put its biofuel policy framework in place,

including a biodiesel mandate that was the first of its kind in North America (Government of Manitoba, 2009). However, the program did not produce as many GHG reductions as expected (OAGM, 2010). Initial enthusiasm for biofuels slowed throughout the 2000s largely due to concerns about the link to rising food prices and continued debate over the amount of GHG reductions they actually produced. Introducing high blends of biodiesel was specifically problematic in Manitoba as there were concerns about the fuel's performance in cold weather.

At the end of 2010, the provincial Auditor General released a report which indicated that the government was facing difficulty meeting its targets. A year later, two months after Greg Selinger and the NDP were re-elected with a new majority, the government formally announced that it would not meet the 2012 reduction target (Prystrupa, 2011). According to the Auditor General's report, departmental officials indicated that "initial targets were too high, actions were not being implemented as originally envisioned and program participation rates were lower than originally anticipated" (p. 19). Politicians also highlighted that the province did not receive credits for offsetting fossil fuel use when it exported hydro to the US (Prystrupa, 2011). Canada and Manitoba had originally lobbied for inclusion of credits for clean energy offsets as part of Kyoto, however the US did not participate in Kyoto and Manitoba did not receive the credits. The government also noted that the province's targets assumed federal initiatives would be in place and reducing Manitoba's emissions by 2012 (Welch, 2013), which did not occur with continued delays from the federal government in regulating individual sectors of the economy.

In January 2012, the recently appointed Minister of Conservation Gord Mackintosh released Manitoba's 2010 progress report which showed emissions continued to go down in the province and were slightly below 2000 levels; however, the reductions were still not close to the 2012 target (Manitoba Government, 2012). At the same time, the province committed to

updating the 2008 climate change plan including new provincial targets to be established with input from the public and experts, and more limited measures such as reporting requirements for industrial and large emitters and continued efforts to reduce coal use.

Explaining Manitoba's policy response to climate change

Manitoba's decision to collaborate with other jurisdictions on climate change was largely driven by the belief that it was well-positioned to reduce its GHG emissions and could take advantage of economic development opportunities that would emerge with the movement to restrict carbon emissions across North America. As a small jurisdiction with limited economic clout the province sought to cooperate with other jurisdictions, adopting legislated GHG targets and committing to policies that were being considered by leading subnational governments, to share its vision and influence regional, national and continental policies. Setting goals and committing to new measures demonstrated the province's commitment and leadership on climate change, putting it in a better position to push for similar actions in other jurisdictions. However, few ultimately followed and the government was left with several high-profile promises that it was unable to fulfill. As one provincial politician put it, "Manitoba was at the front of the parade, with no one following".

When Manitoba passed *The Climate Change and Emissions Reduction Act* in spring 2008 it was one of only a handful of jurisdictions that made a formal legal commitment to reduce its emissions. The province was influenced by the example of California and BC which had received praise from environmental groups and international leaders for demonstrating their commitment to the file and placing their targets in legislation. However, the content or details of the goals differed as the targets California and BC adopted were less ambitious than Manitoba's,

requiring a smaller share of their emissions be reduced and giving them until 2020 to achieve their goal.

Despite Doer's statement that the government should be defeated, the NDP cruised to re-election in 2011. The target had more impact within government as many departments began to distance themselves from the climate change file when it became problematic. This made it difficult for the climate change branch to engage departments that were crucial to implementation and get them to buy into their role in Manitoba's climate change agenda. A Manitoba policy maker who worked on the file suggested that, even though climate change was perceived as a problem, those not directly managing the file tended to view it as the climate change branch's problem rather than a government problem.

Manitoba's adoption of legislated targets could also be viewed as the incomplete transfer of a policy, where one jurisdiction borrows an idea from another but crucial elements of what made it successful in the first jurisdiction are not adopted (Dolowitz and Marsh, 2000). By adopting the more modest targets of California or BC along with the legislated commitment, the Manitoba government may have been able to show more progress and get closer to achieving its goals. This would have made it easier to engage departments and maintain momentum on the file within government. The government appears to have learned from this experience as it has suggested new targets will account for a range of economic and political factors and be more realistic for the province to achieve (Welch, 2013).

The economic downturn at the end of the 2000s hampered the province's ability to adopt the policies to which it had committed. The public and business groups in the province became focused on the economy and less amenable to new initiatives that could cost money and place

them at a competitive disadvantage. On cap-and trade, as it became clear that a comprehensive system at the national or continental level was unlikely and the details of WCI's regional market would not be favourable to its interests, Manitoba's resolve to spend the political capital and the administrative resources necessary to develop and operate a system was further eroded. A government official who worked on climate change explained the province's position:

“We don't have the resources to do the regulatory work, to prepare and implement the kind of regulatory changes that would be necessary to be a part of WCI. Ideally the federal government would establish those rules and any kind of regulatory regime would be federally driven. Unless you've got the resources in place you will eventually be left by the wayside. Also when you're looking at participating in a cap-and-trade program and your industrial base is one tenth of what other provinces' is, we need to ensure that it warrants that kind of investment.”

Manitoba did manage to adopt a carbon tax; however, the scope of the policy is narrow compared to those adopted in BC and Quebec. Government officials in Manitoba indicated they looked at the BC and Quebec carbon taxes and a member of an environmental group in the province indicated that their organization proposed it to the government as well. But those policies had very little influence on the design of Manitoba's tax. The province was originally focused on cap-and-trade as its mechanism for pricing carbon and has continued to rely on voluntary incentive and education programs to try to reduce emissions from transportation rather than tackling the political controversy involved with implementing a tax. A key argument against the tax made by business groups in the province, according to one member interviewed for this study, was that Manitoba's economy is largely comprised of small businesses and it is more

difficult for them to absorb the cost increases created by any new pricing policy compared to larger national and international companies.

Manitoba supported California's vehicle standards, although it decided to study the issue further rather than introduce legislation like BC and Quebec. Eventually, though, Manitoba became subject to those standards when the federal government adopted them nationally. The low-carbon fuel standard was less successful than vehicle emission standards in spreading across the continent; it faced significant pushback from the oil and gas industry as well as the Alberta and Canadian governments. Ethanol and biodiesel mandates continue to be the preferred option for promoting renewable fuel use in Manitoba and, despite continued debate about their carbon footprint and environmental impact, BC, Alberta, Saskatchewan and Ontario have established requirements similar to Manitoba's and the Canadian government created national mandates for both fuels.

One area where Manitoba could have learned from the experience of other jurisdictions was how government and the provincial bureaucracy were structured to develop the province's climate change policies. While California and BC established committees at the political executive level, ministers in Canada and secretaries or directors in the US, Manitoba tasked a senior bureaucratic committee of deputy ministers with overseeing the file. In addition, BC created a Climate Action Secretariat located in the premier's office which provided direct support to the cabinet committee while in Manitoba the climate change branch remained located in the line department.

While the involvement of Doer and his office was strong in the early stages of Manitoba's policy development, without a formal structural link to the political level the cache

or buzz associated with the climate change file diminished over time. The deputy minister committee provided little support for the climate change unit in managing the file as the group met infrequently with sporadic attendance from deputies. As a result, the climate change unit became buried within the line department leaving those working on the file with less access to political decision-makers and little capacity to drive and coordinate the activities of other departments.

Conclusion

The Manitoba Government under Doer had a clear vision of the province as an important energy provider in the transition to a low-carbon economy in North America. As a small jurisdiction, the province sought to become a leader and collaborate with likeminded provinces and states to influence regional, federal and continental policy. However, when the wind came out of the climate change sails in North America, and it became clear that policies at the national or continental level would not emerge; Manitoba fell back on its existing strategy of reducing coal-use and promoting renewable energy rather than pursue more aggressive policies like cap-and-trade. The provincial storyline (Blatter & Markus, 2014) in Manitoba was initially about a small jurisdiction looking to punch above its weight, but shifted to one of concern over the economic and political costs of action relative to the impact the province could make. The next chapter focuses on the development of climate change policy in Alberta, a province which, unlike the four WCI provinces, did not join the subnational governments banding together to address climate change, and sought to develop its own approach to the issue.

CHAPTER 9

THE “MADE IN ALBERTA” APPROACH TO CLIMATE CHANGE

The contribution of Alberta’s oil and gas industry to Canada’s greenhouse gas emissions and the provincial government’s opposition to the Kyoto protocol have frequently made the province an international pariah on climate change, even drawing criticism from high profile celebrities such as James Cameron, Neil Young, Leonardo DiCaprio and Arch Bishop Desmond Tutu. The Alberta government has fired back suggesting the province is doing its part on climate change (“Stelmach defends oilsands”, 2008) and has been unfairly targeted compared to other oil and gas producing jurisdictions (Kleiss, 2010). Lost in the heated debate over Alberta’s reputation as a villain or unsung hero are the unique challenges the province faces in addressing climate change as a major North American energy provider. Most notably among these is the profound influence of the US which receives almost all of Alberta’s oil and gas products.

This chapter reviews the development of climate change policy in Alberta giving particular attention to the influence of the US to provide an explanation of the factors and forces shaping the instruments the province adopted to address the issue. As the vast majority of oil sands exports travel to the US (National Energy Board, n.d.), the key consideration of Alberta climate change policy is retaining access to those markets. While this means Alberta has been cool towards any policies that could increase costs for oil and gas producers and make them less competitive, it does not mean the province has rejected action on climate change completely. The need to retain social license, broad support from civil society and governments in the US, led Alberta to move forward faster than many other North American jurisdictions in taking action on climate change. Indeed, in some instances which have received less public and media attention

the province has even engaged in information sharing seeking to learn and share information with climate change leaders in North America.

Climate change policy in Alberta

Alberta began developing climate change policies several years earlier than many Canadian provinces. It wanted to provide an alternative to the federal government's plans to meet Canada's Kyoto commitments which it believed would create new costs for the province's oil and gas industry and place it at a competitive disadvantage in US markets (Houle, 2009). Alberta policy makers interviewed for this study frequently referred to being in the "bull's eye" or suggested that Alberta was where "the rubber hits the road" on climate change in Canada because of the province's large and rapidly growing contribution to the country's GHG emissions. In the spring of 2002, the province scurried to put together a draft climate change plan in an effort to pre-empt the federal government and protect its jurisdiction over natural resources. Alberta politicians took their plan on the annual round of Canadian intergovernmental meetings, including premiers and environment and energy ministers, to gain the support of other provinces. Not all provinces supported Alberta's position but they did collectively issue a joint declaration calling on the federal government to consult with them further before ratifying the Kyoto agreement (Provincial and territorial statement, 2002).

Despite significant resistance from Alberta, to the point where Premier Ralph Klein felt the need to confirm the province would not leave the federation over the issue (Alberta Government, 2002), the federal government ratified the Kyoto protocol at the end of 2002. The Alberta government continued to follow its own path, releasing a fully formed provincial climate change plan that October. The "made in Alberta" plan set a provincial target of a 50 per cent

reduction in the intensity of the province's emissions - the number of GHG emissions in the province divided by its gross domestic product as opposed to hard caps which limit the total number of emissions - from 1990 levels by 2020. Intensity targets were first developed in the US under the federal Bush administration (Hill & Leiss, 2002). The Alberta government borrowed this approach to ensure economic growth in the province would not be stymied and the oil and gas industry would not be placed at a competitive disadvantage south of the border (Alberta Environment, 2002). Critics of the approach, however, highlighted that total emissions in the province would still be allowed to increase making it impossible for Canada to meet its Kyoto targets (Bramley, 2002).

Alberta's GHG emissions primarily come from the oil and gas industry and coal-burning electricity facilities, which means the province has a high number of single, large-emitting sources compared to provinces with less industry or that rely on hydroelectricity. One long time public servant explained:

“In Alberta over 50 per cent of our emissions come from one hundred facilities and the thinking was, well, this is where the growth in our emissions is going to come from. It's going to come from those hundred-plus facilities, those large emitters. Let's tackle that first and then we'll circle back with other programs and policies and fill in the broader provincial strategy around that.”

The Alberta government's plan focused on investing in technology, specifically around carbon capture and storage (CCS), which would allow industry to reduce their GHG emissions over the long term without creating penalties that could affect their competitiveness and slow growth. Environmental groups and the official opposition in the province argued that CCS technologies

are still a long way from being widely adopted and questioned their overall effectiveness, suggesting that the government was “backing the wrong horse” (“\$2B carbon capture and storage plan”, 2008; “Opposition attacks”, 2008). To these groups, the Alberta government’s plan was an industry-friendly approach that prioritized economic development over reducing the province’s GHG emissions.

Government officials involved in developing Alberta’s climate change system indicated that the province originally planned to negotiate individual GHG management agreements with new facilities, as part of their environmental approval process. They quickly realized a common policy for all large emitters in the province was more efficient to administer. After significant consultation with industry, *The Climate Change Emissions Management Act* was passed in the 2003 spring legislative session creating the authority for a province-wide system and making Alberta the first in Canada to produce a legal commitment to regulating GHG emissions.

One government official who worked extensively on climate change in Alberta noted that Environment Minister Lorne Taylor helped move forward legislation in uncharted territory on an issue which remained politically charged after the Kyoto calamity. This individual suggested Taylor was an experienced politician who understood how Alberta cabinet politics and the province’s relations with the federal government worked. His leadership was critical to gaining the support needed to pass the legislation. Taylor also championed Alberta’s climate change activities abroad, travelling to Europe to attend conferences in the Netherlands and Russia and meeting with officials in France and Great Britain to discuss Alberta’s plans to reduce its emissions and its challenges as a large energy provider. The province was anxious to signal to critics within Canada and internationally that its opposition to Kyoto did not mean it was unwilling to act on climate change (Alberta Government, 2003).

Developing a system to regulate GHG emissions in Alberta

A small number of people in the Alberta provincial government's environment department were tasked with building the new provincial system for large emitters. The group was originally located in a larger policy shop handling conservation in the resource sector but in the mid-2000s was elevated to their own unit reporting directly to an assistant deputy minister. A policy official who worked in both contexts suggested that the move did not constitute an appreciable change in their day-to-day work because they already had frequent contact with the deputy minister. The reorganization partially sought to show the federal government and other observers that the province was on top of the issue and well on its way to putting policy in place. In the early stages of policy development Alberta also established a ministerial task force on climate change to respond to the Kyoto crisis - a policy official who worked on the file during this time suggested that it was helpful in prioritizing and coordinating the government's initial policy effort.

In the fall of 2004 the Specified Gas Emitters Reporting Regulation, the first step in building Alberta's system, was brought into force which required all facilities in the province emitting over 100,000 tonnes of GHG annually to report their emissions to government. The province had released a draft framework for the regulation almost two years prior and consulted widely with industry and other stakeholders. Although relations between Alberta and the federal government had become acrimonious around Kyoto ratification, provincial officials continued to work with their federal counterparts to discuss plans for harmonizing Alberta's new regulation with national reporting requirements.

At the end of 2006, Alberta underwent a change in political leadership as Ed Stelmach took over from Klein as leader of the Progressive Conservative party and Alberta premier. The new leader was faced with a rapidly changing political context. At the beginning of the year, Stephen Harper and the federal Conservative party, who strongly supported the expansion of Alberta's oil and gas industry, won a minority government. One long-time observer of climate change policy in Alberta suggested that having a federal government with a strong western base and a prime minister whose seat was in Calgary allayed much of the concern that federal climate change policy would conflict with provincial interests.

At the same time, public attention and demand for action on climate change in North America was increasing. Alberta wanted to ensure the GHG-intensive oil sands would not be singled out as a continental culprit in the search to reduce emissions. In his first legislative session as premier, Stelmach gave the green light to the central pillar of the province's regulation system announcing that large emitters would be required to reduce the GHG emission intensity of their operations by 12 per cent. One government official, who played an important role in developing the system, described the Alberta government's thinking at the time:

“We weren't sure what was going to happen nationally or internationally so we thought why don't we get experience with implementing some policies, see how the economy responds, see how the system responds to that, and then over time, make adjustments. We don't have to hit a homerun right out of the box. We don't have to implement something that might meet a bunch of resistance. Framing the issue as an effort to be more efficient with resources was easier to sell to politicians and the public.”

The new Specified Gas Emitters Regulation (SGER) provided considerable flexibility for industry in meeting their GHG emission obligations. Facilities could meet their requirements in three ways: reducing GHG emissions from their operations; purchasing offsets, emission reductions from projects outside the system, which were produced in Alberta; or paying into a technology fund which would invest in GHG emission reduction projects and technologies. Once the system was up and running, those that had surpassed their targets in a given year could bank those credits for the future or sell them to another participant. The price per tonne of emissions was set at \$15. A provincial official interviewed for this study revealed this price was what Alberta and the federal government had arrived at when working together on regulations for industry earlier in the decade and industry had been comfortable with that amount.

Alberta was the only jurisdiction looking to include a technology fund in a regulatory system for GHG emissions. One policy official, involved in SGER's development from the beginning, indicated that the idea originated with environmental economists working in the oil and gas industry and had been part of early discussions about a Canadian federal system. The official suggested including a technology fund was viewed by industry as a more palatable option than simple trading because it provided price stability, the price of credits or offsets would never go above the cost of paying into the technology fund, and allowed them to invest money in projects that could help reduce emissions in the future.

To address concerns that money and investment would flow out of Alberta to other jurisdictions, any offset purchased to comply with the SGER system had to come from within the province. One official, who played a key role in operating the system, pointed out that accepting offsets from outside Alberta also would have created an administrative problem; not all jurisdictions had the infrastructure in place to measure and verify GHG emission reductions

according to international standards, and Alberta did not have the resources to send people across the continent to follow up on every project that reduces GHG emissions. Another policy maker interviewed for this study joked that this could lead to companies in the province purchasing “hot air from Russia” as an offset.

Overall, the system had the support of industry because the targets were not overly strenuous and allowed them to invest in technologies that could help them reduce their GHG emissions in the future. Furthermore, industry was happy to have a system in place because it provided certainty in their operations. Several industry experts who participated in this study noted that, before the SGER, companies were never sure whether they would receive credit for a specific action they took to reduce their emissions. With a system in place they could begin to make long term plans for reducing their emissions and meeting their obligations.

Environmental groups and experts across the country were less enthused about the regulation because, like Alberta’s provincial targets, industry was only required to reduce the intensity of their emissions, which meant their total emissions could continue to rise even if they became more efficient. Furthermore, the technology fund provided a “soft landing” to industry as many were already likely to invest in technologies that would make their operations more efficient (Read, 2014). Criticism of Alberta’s new regulation was made more acute because, around the same time, other Canadian provinces joined the Western Climate Initiative’s (WCI) plans to institute a regional cap-and-trade system which set an absolute cap on GHG emissions. Alberta did not participate in WCI because it did not want to stymie economic growth with an emissions ceiling and, once again, was concerned that a trading program with other jurisdictions would result in capital leaving the province. A provincial public servant who helped develop Alberta’s approach to climate change suggested: “we wanted to make sure that any policies or

programs solved the problems and kept investment in Alberta”, while another stated more stridently that a system to reduce GHG emissions should not be a “cash machine” for other jurisdictions.

In the summer of 2007 Alberta attended the Council of the Federation, the annual meeting of Canadian premiers, where climate change was at the top of the agenda. The province went into the meetings with its defences up; Stelmach warned the other premiers they should not gang up on Alberta and criticize its decision to develop its own approach to the issue (“Public wants action”, 2007). Alberta rejected the plan of Premier McGuinty in Ontario to adopt a national cap-and-trade system, arguing it would be too expensive and kill jobs in the oil sector. The Alberta premier would only agree to a handful of smaller initiatives (“Premiers squabble”, 2007).

At the beginning of 2008 Alberta released a new climate change strategy. Since the previous March the provincial government had been consulting for an update to their 2002 plan, holding meetings across the province. It was looking to respond to the criticism it was receiving from the rest of Canada and the international community on its climate change plans. In the new strategy the government committed to meeting its 2002 intensity targets ten years early than originally planned and established absolute targets to stabilize GHG emissions by 2020 and create a 14 per cent reduction from 2005 levels by 2050. While the plan did seek to cap the province’s emissions for the first time, environmental groups and the official opposition were unimpressed, continuing to argue the reductions were modest and GHG emissions would still be allowed to rise for years (Opposition attacks, 2008).

According to the new plan, 70 per cent of the province's reductions would come through the implementation of carbon capture and storage technologies, while increasing low-carbon energy production and promoting energy efficiency would be responsible for the rest (Alberta Environment, 2008). To support the plan, government committed an unprecedented \$2 billion dollars to invest in new carbon capture and storage projects being developed in the province. The investment followed the recommendations of the Carbon Capture and Storage Development Council, established by the government to provide recommendations on policy development that would make CCS the principle means of reducing GHG emissions in the province.

That spring the Alberta government put the finishing touches on its SGER program by formally establishing the Climate Change Emissions Management Fund, the technology fund which industry could pay into to meet their obligations under the system. Interviews for this study indicated the Alberta officials designed the process for allocating the funds by borrowing elements of Canadian Department of National Defence procurement programs and funding processes used to support the province's forestry sector. An important feature of the fund, which one government official indicated industry had pushed for, was that the money did not go into general revenue, which could then be funnelled into other government priorities, but was specifically set aside for investing in carbon reduction projects. This provided industry a degree of certainty that the money they contributed would be reinvested in technologies that could help them meet their obligations. The Climate Change and Emissions Management Corporation (CCEMC), an arm's length agency governed through a board and executive management structure, was established to oversee a competitive process that allocated funds to projects that would make the largest contribution to reducing GHGs in the province.

Alberta and US climate change policy

The 2008 US presidential and Congressional elections raised the possibility of North American-wide climate change policies such as cap-and-trade. In Alberta this led to concerns about how its oil and gas industry would be treated under any new continental policies. The oil sands had drawn the ire of environmental groups in the US, frequently referring to Alberta's product by the ignominious moniker "tar sands" and pressuring President Obama and state governments to impose penalties and restrict their access to the US.

The policy that raised the most concern in Alberta was the low-carbon fuel standard (LCFS). The policy originated in California under Governor Schwarzenegger and targeted the GHG emissions from the production of fuel by requiring suppliers to reduce the overall emissions coming from their product by 10 per cent. The program was designed to reduce GHG emissions and spur investment in low-carbon and renewable fuels. Alberta was not completely opposed to alternative fuels and had mandated renewable content in the provincial fuel supply in 2008, five per cent in gasoline and two per cent in diesel. The province's issue with the LCFS was that fuel coming from the oil sands was assigned a higher GHG intensity value than other forms of oil which increased the burden they faced under the policy and would make them less attractive to fuel suppliers. Adding further fuel to the fire, some of California's local oil production also has a higher GHG intensity than conventional oil, but was not assigned a higher value under the policy.

California faced a legal challenge from the oil and gas industry over the LCFS and Canadian and Albertan government officials followed the proceedings with keen interest, acting as an intervener several times in an attempt to ensure that the oil sands were treated fairly. In a

letter to Schwarzenegger, Canadian Natural resources minister Lisa Raitt indicated that the standards could be subject to a challenge under the North American Free Trade Agreement, arguing it unfairly gave preference to oil producers within the state (Fickling & Schott, 2010). Despite these protests California was undaunted and formally approved the policy at the beginning of 2010.

California is not a major market for Alberta oil products but the concern from the provincial government and industry was that the policy would spread to other states and, in a worst case scenario, be adopted nationally by the US federal government. Provincial officials needed to look no further than the widespread adoption of vehicle emissions standards throughout US states and Canadian provinces, leading to a harmonized continental policy, to see this was a possibility. Regional groups in the Pacific Northwest, Midwest and Northeast of the US were studying the LCFS and several of the climate change bills introduced in the US Congress also contained plans for a national policy. Midwest states were particularly important to Alberta because the region receives a significant amount of the province's US oil exports.

Alberta government officials fanned out across the US to communicate the actions the province had already taken to reduce its GHG emissions and ensure the oil sands would not be placed at a disadvantage by new climate change initiatives. Stelmach travelled to Washington to meet with US senators in May 2010 and in the fall hosted US Speaker of the House Nancy Pelosi and three high profile senators at Fort McMurray to tour the oil sands. Alberta environment minister Rob Renner met with Northeastern states to discuss and promote Alberta's climate change plans and its regulations on the oil and gas industry. Gary Marr, Alberta's representative at the Canadian Embassy in Washington, had been working for years to put forward Alberta's position in many of the Midwest states that were considering a LCFS. His strategy was to

highlight the economic spinoffs that the oil sands industry created in the Midwest including local businesses which produced tires and shovels used by Alberta oil companies (Lehmann, 2010).

Several Alberta officials asserted vociferously that the motivation for putting a full-court press on US governments was to clear up popular misconceptions about the environmental record of Alberta and the oil sands, and to ensure decision-makers were well-informed about the province's efforts to address climate change. A climate change expert working in Alberta echoed the government's sentiment, saying:

“Part of our challenge in Alberta is that we do not do a particularly good job of demonstrating the very good work that is being done here. We've been labeled “bad guys”. And I'm not going to suggest for a second that we do not have a set of challenges on the environment that need to be worked on, and commitments need to be made to improve. But my God we have been doing a lot of stuff that is very progressive. We need to be able to tell that story and so part of the reason why we are doing this [engaging with other jurisdictions] is that we want to enhance the view of Alberta's brand and Alberta's reputation, and we want to be able to demonstrate that we are actually getting stuff done.

However, environmental groups across the continent criticized the close relationship between provincial government officials and the oil and gas industry in lobbying American governments, arguing they were undermining much needed environmental policies (“Canadian Minister Raitt”, 2009). In the end, the LCFS did not spread widely like the vehicle emission standards. The policy was removed in the early stages of negotiations on climate change at the federal level in the US and no Midwest states moved forward on the policy. The Northeast states and Washington and Oregon were more supportive of the policy but, rather than following California

immediately, continued to consult with stakeholders to determine the best course forward. BC is the only Canadian province that has put a policy in place and even it was adapted to ensure oil sands producers do not face stiffer requirements than anyone else.

Redford and the search for social license

In October 2011 Alison Redford took over from Stelmach as leader of the Progressive Conservative Party and premier. She was determined to change the way Alberta and its oil sands industry was viewed outside the province. By this time Alberta's focus on US policy had begun to shift from the low-carbon fuel standards to pipelines. President Obama had just deferred the US state department's decision on the TransCanada Corporation's proposed Keystone XL pipeline, which would carry oil from Alberta to the Gulf of Mexico, hoping to avoid a decision until after the 2012 presidential election. The pipeline was fundamental to the future of the oil sands as it would allow Alberta to ship more product to the US and reach new off shore markets; however, it had become a rallying point for opponents of the oil sands, including climate change advocates, putting its future in jeopardy.

Shortly after taking office Redford travelled to Washington to once again promote Alberta's record on climate change and its efforts to limit emissions from the oil sands. Despite the premier's visit, at the beginning of 2012 the Obama administration rejected the Keystone proposal as it stood, but allowed the company to reapply with a new proposal that would address some of the concerns that had emerged from US states and environmental groups. The announcement prolonged the final decision on Keystone until at least 2013 and threw into question the future of what had once been considered a slam dunk for Alberta.

One climate change policy official in the Alberta government suggested that a shift began to occur under Redford after the government saw the negative attention it received on the LCFS, the effect it had on the Keystone decision, and the accolades other Canadian provinces received for participating in the WCI. According to this official, the province began to develop a more collaborative approach in an effort to better communicate Alberta's position and the actions it had taken to slow GHG emission growth in the oil sands. Social license became a buzz word in the government describing the need to acquire and maintain the support of civil society, and governments in North America and beyond, to market and export product from the oil sands.

The government's bid to improve its reputation on climate change took a major hit in April 2012 when one of the four major projects targeted under the flagship CCS investment strategy was cancelled. The TransAlta Pioneer project, which would capture carbon at three coal-fired electricity plants, was deemed to be economically unviable by its proponents even with generous support from the government's CCS fund. The company opted to pay the penalty for the GHG emissions from the plants under the SGER system rather than capture and sell the carbon dioxide to oil and gas companies which could use it for enhanced oil recovery. The company's decision led to further concerns that the province's focus on CCS technology would not be able to drive GHG emission reductions (Cryderman & McCarthy, 2013).

One month later the province formally announced that it did not meet its 2010 GHG reduction target and was unlikely to meet its 2020 goal. Environment Minister Dianne McQueen announced the government would be reviewing its climate change plans in an attempt to find additional measures that would create further emission reductions in the province (Cryderman, 2012). There have been rumblings several times in the last few years that the government might be willing to increase the price in its SGER system to maintain the social license necessary for

continued access to US markets (McCarthy & Vanderklippe, 2013). However, the surprise election of the first NDP government in Alberta's history in 2015 has moved climate change policy into uncharted waters with the possibility that more ambitious measures, such as participation in a cap-and-trade program or a carbon tax, could be on the table for the first time.

Alberta climate change policy: More than intransigence?

Alberta's decision to develop climate change policies was initially driven by the fear of federal intrusion into its jurisdictional control over the province's natural resources (Houle, 2009). There is a longstanding historical and institutional distrust of federal natural resource policy in Alberta creating fears that federal climate change initiatives would be reminiscent of the National Energy Program of the 1970s and affect the province's freedom to develop its resources. The principal concern for Alberta in developing climate change policy was that its oil and gas industry would continue to expand which led it to reject absolute GHG emission targets and policies like cap-and-trade and the LCFS. This does not mean that Alberta rejected action on climate change outright: the province developed its own approach which sought a balance that would keep the industry competitive while maintaining broad support or social license from civil society and governments in North America.

The pressure Alberta policy makers felt to harmonize provincial targets with American policy reflects the US's capacity to influence Canadian environmental policy decisions through what Hoberg refers to as the indirect imposition of costs (1991). The province chose to mirror the Bush administration in the US by adopting intensity targets for the province, and used a similar approach in its SGER system, to avoid placing provincial industry at a competitive disadvantage with their southern counterparts. Several Alberta policy makers interviewed for this

study, in a variety of roles, indicated that the province has always been aware that climate change presented a problem but wanted to solve it by investing at home rather than paying what many felt were subsidies to other jurisdictions through a cap-and-trade program. The SGER system was designed with intensity targets and a technology fund to support industry in making long-term GHG reductions rather than requiring firms to purchase credits or offsets year after year.

In some ways the distinction between SGER and cap-and-trade has been overdrawn. Both systems allow participants to receive credit for reducing emissions beyond their targets that can be sold to those who are having difficulty meeting their goals. Participants in both systems are also able to purchase offsets outside the system to meet targets. Therefore, the basic components - or what one Alberta policy maker called “the building blocks” - of the system are similar, including the need to measure, verify and report GHG emission reductions from those covered by the system as well as reductions from offset projects. This official, who worked on the SGER system, explained: “Frankly, the architecture of the system, all the components, are similar whether it’s cap-and-trade or intensity. We had done some thinking on this, and if cap-and-trade emerged as the dominant North American system we could change our system pretty quickly with minor adjustments, and not miss much of a beat.”

Alberta engaged in collaboration and information sharing with other jurisdictions, including US states, on the foundational pieces of SGER which led to the second stream of US influence on Canadian policy identified by Hoberg, the exportation of knowledge (1991). For example, the province was part of a multi-jurisdiction organization called The Climate Registry which sought to develop common standards for reporting on GHG reductions in North America. Most of the jurisdictions involved were pursuing cap-and-trade but Alberta was able to participate to support development of its own system. Provincial officials who had a hand in

developing the system noted that they benefitted from looking at protocols for measuring and verifying offsets developed in leading jurisdictions like California, and many jurisdictions borrowed from the work that Alberta had done as an early-mover in this area.

Alberta's opposition to the LCFS is a clear case of an indirect imposition of costs from the US as the standards would make the oil sands less attractive to US fuel suppliers who had to reduce their overall emissions. As one government official working on climate change policy indicated: "we did not look at the low-carbon fuel standard as a policy leader, we did not think it was a great policy, but we were interested in it because it has an impact on us". Alberta adjusted its provincial targets in 2008 to incorporate absolute GHG emission targets and openly mused about increasing the stringency of the SGER system to; as one Alberta public official that regularly dealt with US jurisdictions put it, "get better press on the issue". However, the government's primary strategy was to reach out to state and federal policy makers in the US to influence policy and ensure its product would not be targeted or treated unfairly. As such, Alberta has the capacity to push back and influence policy in jurisdictions to which they export oil and gas, rather than only adjusting their domestic policy regimes to address external concerns.

Conclusion

Tackling the GHG emissions from Alberta and its oil and gas industry is essential to addressing climate change in Canada. It is important to move beyond polarizing storylines (Blatter & Markus, 2014) about the province's environmental reputation to understand its unique experience as a major North American energy provider. The provincial narrative on climate change policy is shaped by the desire to protect and expand the provincial oil and gas sector while maintaining support for the industry in Canada and the US. This led to the decisions to rely

on intensity targets and develop a regulatory system that would allow companies to contribute to a technology fund. A more surprising finding is that Alberta also engaged in collaboration and information sharing on parts of its SGER system which led to common foundational pieces with the cap-and-trade policies being considered by its counterparts in Canada and the US. The picture that emerges of Alberta is neither a climate change villain nor an unsung hero. With continued concerns among North American jurisdictions about the risks of moving forward on cap-and-trade, Alberta's model may represent a starting point which would provide experience implementing a regulatory system and information about the economic impact that may result.

CHAPTER 10

EXPLAINING THE SELECTION OF CLIMATE CHANGE POLICY INSTRUMENTS IN CANADIAN PROVINCES

Canadian provinces have a long history of divisiveness on climate change, but for a brief period in the mid-2000s some appeared to be on their way to overcoming their differences and working together to develop a coordinated policy response. Provinces' desire to work with California and lead on climate change created a unique pattern of collaboration within Canada. BC found itself aligned with Ontario, Quebec and Manitoba despite its history as a western province with oil and gas production that had previously opposed Kyoto. Provincial collaboration on climate change was short-lived however, as provinces largely fell back into their regular pattern of protecting regional interests when confronted with the reality of the economic downturn in North America and continued inaction from the federal government. What then are we to make of this period of provincial collaboration and leadership on climate change? Was it merely an anomaly caused by provincial politicians' desire to secure a photo-op with a movie star governor from California, or is there something more that can be learned from provinces' brief attempt to work together on climate change?

The findings of this research project confirm that local economic and political circumstances largely overcame provincial desires to work together and follow California as there was significant variation in the policy instrument mix adopted in each jurisdiction. But the study also found convergence in a few areas which suggest collaboration did overcome regional differences under certain conditions. In light of the preponderance of analysis which suggests that regional differences are almost insurmountable when seeking consensus on climate change in Canada (Harrison, 2012b; 2013; Winfield & MacDonald, 2008; 2012), these findings are

significant as they highlight that provincial collaboration can overcome these divisions. These limited cases of convergence provide a foundation for increased collaboration and convergence in the future and make a strong case for continued provincial involvement in Canadian climate change policy.

This chapter outlines the comparative analysis of the five provincial case studies (Chapters 5-9) and explains the policy mixes chosen by provinces to address climate change using the analytic framework outlined in Chapter 3. After briefly reviewing the policies that emerged in each province this chapter analyses the cross-jurisdictional momentum which initially caused provinces to consider a similar set of policies and assess the role of policy transfer and learning in the process of provincial policy development. Then the chapter considers how local circumstances led to variation in instruments across jurisdictions; it uses this analysis to update and propose a refinement to existing categories of provincial climate change policy responses. Instances of limited convergence are then studied to explain what led to them and why they were special. What follows argues for a long-term, incremental approach to climate change policy which builds on the adoption of smaller instruments to facilitate collaboration on more complex and controversial instruments in the future. The chapter concludes by assessing the extent to which the policy transfer and policy convergence approaches were useful in explaining provincial instrument selection, exploring its limitations and proposing ways that it can be improved.

A brief review of the policy mix in each province

Despite variation on most policy instruments, there was limited convergence in the policy mix in each province. As Table 3 demonstrates, GHG targets, cap-and-trade, an LCFS and

administrative approaches, were adopted in some provinces but not others, and the details or content of the instruments often differed, but convergence did occur on vehicle emissions standards.

Table 3: Summary of provincial climate change policy instruments

| | GHG Targets | Cap-and-Trade | LCFS | Vehicle emission standards | Administrative and organizational approach | Carbon Tax |
|-----------------|---|---|--|--|---|--|
| Quebec | 6% below 1990 by 2012, 20% by 2020 | Joined in 2012 | Exposed to the policy through NEG-ECP but did not seriously consider | Plans for provincial standard announced in 2007, eventually adopted the national standard | Environment minister reports through regular cabinet channels and the unit responsible for climate change is situated in department | Adopted a small carbon levy (equalling 0.8c/L on gasoline) on fossil fuels in 2007 |
| Ontario | 6% below 1990 by 2014, 15% by 2020 | Passed enabling legislation but did not meet 2012 start date | MOU with California signed, but no progress made | Originally opposed the standard but changed its position as more subnational jurisdictions came on board and eventually accepted the national standard | No cabinet committee is created but a centralized climate change unit is established to manage and report on the file | Did not consider a tax |
| BC | 6% below 2007 by 2012, 33% by 2020 in legislation | Passed enabling legislation but did not meet 2012 start date | Established an adapted version of California's policy | Plans for a provincial standard announced in 2006, eventually adopted the national standard | A cabinet committee chaired by the premier is created with a centralized climate change unit to provide administrative support | Adopted a revenue-neutral carbon tax on fossil fuels in 2008. The price began at \$10/tonne and increased to \$30/tonne by 2012. |
| Manitoba | 6% below 1990 by 2012 in legislation | Conducted consultations but has not passed enabling legislation | Exposed to the policy through MGGRA but not seriously considered | Created an advisory committee to study the impact of the standards in the province and eventually accepted the national standard | A deputy minister committee is established to manage the file and the climate change unit remains situated in department | Adopted a \$10/tonne tax on coal |
| Alberta | 20 MT below BAU by 2010, 50 MT by 2020 | Developed its own system (SGER) using intensity targets and a technology fund | Opposed the LCFS and actively engaged US governments to prevent its broader adoption | Supported the standard at COF and accepted the national standard | A cabinet committee left over from Kyoto debate exists in the early stages of policy development and the bureaucratic unit responsible for climate change is situated in a department | Did not consider a tax |

All provinces set GHG emission reduction targets, but there was variation in the size of proposed emissions cuts and the timeframe for achieving them. Ontario, Manitoba and Quebec attempted to meet Canada's Kyoto target of 6 per cent below 1990 emission levels by 2012 (Ontario gave itself two extra years to achieve that goal), while Ontario and Quebec also adopted similar targets to the EU for 2020 to ensure they were aligned with the international community. BC's approach focused on a long term reduction target of 33 per cent from 2007 levels by 2020 and the interim goals it set of 6 per cent by 2012 and 18 per cent by 2016 were more modest than those of the provinces striving to achieve Kyoto. Alberta was the clear outlier as it initially committed only to intensity targets for the province and, after criticism from the rest of Canada and the international community, proposed a modest goal of 20 Megatonnes (MT) below business as usual projections (BAU)¹² by 2010 and 50 MT by 2020.

Manitoba and BC emulated California's example by setting their targets in legislation and committing to periodic progress reports. Quebec and Ontario also committed to reporting on their progress but rather than enshrining their targets in legislation the provinces tasked independent legislative officers with reviewing their activities and holding the government accountable. Legislated targets were a major accomplishment in California; one policy maker in the state noted they were the product of bi-partisan cooperation between a Republican Governor and a Democratic legislature and would be difficult to alter. However in Canadian provinces, where the executive and legislative branches are fused and legislation is often changed more easily (VanNijnatten, 2008), legislated targets were more of a symbolic gesture of leadership and the willingness to be held accountable. Ontario and Quebec's approach was not as different from that of BC and Manitoba as it may originally appear.

¹² Business as usual represents a scenario of projected emissions growth if no actions were taken. This is different than a reduction in absolute levels.

Quebec is the only province that implemented a cap-and-trade system and joined California in the WCI carbon market. BC and Ontario put the legislative and policy framework for a cap-and-trade system in place but did not join the regional market when it began in 2012. Manitoba indicated it would participate in cap-and-trade but did not make a legislative commitment. Alberta has developed its own system using intensity targets and a technology fund which shares foundation pieces with cap-and-trade, such as reporting requirements and trading mechanisms, but only requires participants to reduce the intensity of their emissions and allows them to pay into a technology fund.

An aspect of provincial responses to climate change that has received little attention, compared to other policy instruments, is how they organized their political and bureaucratic resources to develop policy. BC worked closely with California in developing its climate change agenda and, according to a California policy maker that worked with the provinces, provincial policy makers were advised by their US counterparts that the file should be run centrally with a strong political commitment. The Ontario Government adopted a similar approach to BC and California, creating a dedicated climate change unit in the cabinet office; however, the government did not create a cabinet committee on climate change to support the CCS as BC did. Quebec, Manitoba and Alberta all chose to leave the climate change unit in their ministry of environment and the minister reported to cabinet through regular channels rather than a specialized committee.

Provinces also considered vehicle and fuel standards developed in California. The LCFS did not spread widely among Canadian provinces, although those participating in WCI and other regional arrangements were exposed to the policy. BC was the only one to adopt an LCFS, but altered the details of the California template to ensure it fit local provincial circumstances.

Alberta opposed the policy and actively engaged other jurisdictions to work against its expansion. In contrast, vehicle emissions standards represent the lone example of policy convergence among Canadian provinces. All provinces supported the policy, while BC and Quebec passed initial legislation towards adopting the standards provincially. Ontario was the lone hold-out but as more jurisdictions lent their support to the California standard the province softened its position and did not oppose the national policy that was eventually adopted by the federal government.

Given the mix of policy instruments selected by each province outlined in Figure 6, what then explains the limited convergence and variation in their responses?

Subnational momentum and policy transfer as explanation for policy instrument selection

Chapter 3 identified two cross-jurisdiction influences that could determine or shape the policy responses of provinces that were engaging in collaboration: cross-jurisdictional learning and the reduction in economic and political risks that comes with taking action as part of a larger group of actors. This study found that the primary effect collaboration had on provincial policy responses was reducing policy makers' fear of economic costs and helping to create the domestic political support necessary for action. This dynamic is best described as a feeling of momentum or policy band-wagoning (Ikenberry, 1990) that emerged among subnational governments. Comparison of the cases studies revealed that subnational momentum or band-wagoning had a larger influence on provincial policy responses than the desire to borrow or learn from a policy in another jurisdiction to solve a problem at home (Rose, 1993).

The phrase that kept coming up again and again in interviews in every WCI province was the importance of "strength in numbers". As one former provincial policy official who worked

on climate change in several different provinces explained: “suddenly we were referred to as ‘the climate leaders’ and these initiatives that people were just working away on in their offices in their little jurisdictions gained some gravitas and that spurred more action”. This feeling of being “part of something bigger” explains why provinces pursued a similar set of policy instruments in the mid-2000s and seemed poised to overcome traditional regional differences. It also provides insight into why, in the end, most were unable to follow through and adopt them.

The largest stumbling block for provinces seeking to take action on climate change was addressing the concern that, if they were the only jurisdiction enacting new policies, this would place their economy and local industry at a competitive disadvantage. This concern was particularly important in Ontario and Alberta, with their large trade-exposed industries, but was mentioned frequently in interviews in all provinces. Subnational collaboration and momentum helped assuage these fears because it confirmed that other jurisdictions were enacting similar measures and raised the possibility of harmonized national policies in the future. Interview subjects often referred to the importance of engaging in collaboration to create a “level economic playing field” among jurisdictions in North America.

The findings of the study confirm the presence of a California effect. The state played a particularly important role in provincial policy responses by reducing the fear of being placed at an economic disadvantage and adding weight to their actions. As one high level policy maker in BC explained:

“When we did things in concert with California we suddenly became significant. California is larger than Canada in terms of its economy and in terms of its population. So when they talk about air emissions from the automobile industry for example, if BC says we want to

have different air standards nobody in the automobile industry cares; if California says that, the industry cares. So we talked with California about moving our subnational governments and finding ways that we could have partnerships together.”

As such, all provinces supported California’s vehicle emission standard, rather than developing their own. Similarly on cap-and-trade, one policy maker who had a hand in developing Quebec’s system noted that, because California had a GDP greater than all of Canada, the absence of a national cap-and-trade system or other jurisdictions participating in a regional system was not a deal-breaker for the province.

Tapping into the political momentum around climate change by engaging in collaboration was a critical factor in building domestic support for action in provinces. In speaking with policy makers in a variety of roles, it became clear there was a reticence to “go it alone” and it was important to engage with other jurisdictions to provide “political cover” for domestic actions. A host of conferences and meetings involving subnational climate change leaders were held between 2006 and 2010, with provincial premiers and environment ministers often playing a prominent role. These events increased the profile of climate change in North America and drew attention to subnational governments’ leadership. Meetings and events with other jurisdictions and leaders brought positive attention to the climate change file and allowed politicians to demonstrate to their electorates that they were promoting local interest abroad while appearing as statesmen and leaders. As one policy maker who held roles both inside and outside government acknowledged: “collaboration created positive feedback and allowed politicians to pat each other on the back on climate change, one of the thorniest, nastiest, non-rewarding issues out there.”

The personal leadership of Governor Schwarzenegger should not be underestimated when discussing the positive momentum that existed on the climate change file in the mid-2000s. At least one policy maker interviewed in each of the four WCI provinces acknowledged that the star power of “the Governator” played an important role in bringing provinces to the climate change table. Although respondents were careful not to paint a picture of pure political opportunism in provincial motivations, it is no coincidence that many provincial plans and policies emerged as Schwarzenegger toured North America in 2007 promoting his climate change agenda (see Figures 4 and 5 on pp.183-184). Many provincial announcements and commitments were made with the governor or people from his office in tow.

The momentum on climate change even led policy makers to compete with each other on the issue. Interview subjects from a variety of backgrounds in every province indicated there was a strong desire among politicians to be first on new policies as well as a real fear of being left behind. Provinces used each other and other subnational leaders as benchmarks, inspiring them to take action. One long time government official that had been involved in climate change since before the Kyoto agreement was signed described the momentum as a game of “leapfrog” where one province moved forward on climate change, which spurred others to go as far or a little bit further. As an example, a high level public official in Quebec indicated there was disappointment in government that the province had not been the first Canadian participant in WCI; BC was able to join a year earlier.

The problem for provinces riding the wave of subnational momentum on climate change was that it slowed and eventually dissipated in the late 2000s, particularly after the global financial crisis and subsequent economic downturn. Political and public attention shifted away from climate change making it more difficult for governments to maintain support for new

policies while budgets tightened and the fear of any actions which could slow the economic recovery became pervasive. One policy maker noted: “The political focus went to more basic issues, controlling spending and job creation to help with revenues” while another used more colourful language suggesting that the global financial crisis and subsequent recession “blew climate change out of the water” as a priority issue.

The momentum among provinces and US states began to work in the opposite direction: jurisdictions were just as quick to jump off the bandwagon as they had been to jump on. The widespread pull back from climate change initiatives affected policy development in all provinces, although to different extents. At least one interview subject in all provinces indicated that once other provinces and states began to stall or move away from their commitments, it became more difficult to push forward with their own agenda. For example, Figures 4 and 5 (p. 183 and 184) demonstrate that the pull back of Manitoba, BC and Ontario from cap-and-trade all occurred after the economic downturn and the failure of national policies. One provincial public servant who had worked extensively with other provinces and states recounted a popular joke that provinces were “leading alone together” because everyone started out seeking to lead but eventually felt that they were already out in front and should not move any further until their provincial or state colleagues caught up.

Cross-jurisdictional learning

While cross-jurisdictional learning was largely a result of collaboration rather than a driver, it did play a role in provincial policy development. Policy transfer among provinces and with US states largely occurred through a pathway of elite-networking, where two parties agree to work together and share information (Bennett, 1991b). The WCI provinces signed MOUs with

each other and California, which was two or three years ahead of most provinces in policy development, to pool their efforts and engage in learning on new initiatives. Cross-jurisdictional learning also occurred through a process of harmonization as much of the policy work which occurred on WCI's cap-and-trade program was a joint effort of multiple subnational jurisdictions (Bennett 1991b). A California policy maker that worked with Canadian provinces was quick to point out that the state benefitted substantially from their support and in some cases was able to learn from its northern partners as well.

In all WCI provinces the commitment to policy transfer was strong among political actors, most commonly premiers and provincial environment ministers (Dolowitz & Marsh, 2000). Environmental advocacy groups pushed to get California-style plans on provincial agendas, particularly in BC and Ontario. But as the momentum on climate change waned, collaboration trickled down to bureaucratic actors and informed the technical work of policy development to a different extent in each jurisdiction. Quebec had been committed to carbon trading since the early 2000s and began to collaborate and share information through the WCI as part of a rational process to find the best option in North America. BC followed California's policy template and worked with officials from the state as more of a short cut to policy development (Bennett, 1991a). Both played a prominent role in key WCI initiatives, such as setting regional targets and developing common guidelines for the carbon market, and at different times acted as joint chair of the organization.

Cross-jurisdictional learning and emulation provided a means of conducting policy analysis and designing policies in BC and Quebec. BC was singular in that learning did play a critical role in determining instrument selection: Schwarzenegger's example inspired Campbell to take action (Dolowitz & Marsh, 2000), and California's policy template helped BC organize

government and establish policies like the LCFS and vehicle emission standards quickly, before the momentum in North America shifted and Campbell left. While learning from California's example was an important component of policy design in Quebec on cap-and-trade, the province was already committed to participating in carbon trading and would very likely have found another option if it did not join the WCI. The province considered participating in RGGI and an industry official in the province that was interviewed for this study indicated that the province also explored the potential for linking with the European ETS. Therefore, it would be an overstatement to say policy transfer with California and the WCI was the critical factor that led to Quebec's decision to adopt cap-and-trade.

Bureaucrats in Ontario and Manitoba did not engage in technical information sharing on policy instruments to the same degree as their WCI counterparts because both provinces did not follow through with their original commitments. While not part of WCI, Alberta also engaged in limited learning at the bureaucratic or technical level while building its SGER system, but continued to oppose cap-and-trade. There were also cases of incomplete transfer of policies in Manitoba and Ontario, where a key aspect of what makes a policy successful in another jurisdiction is not adopted (Dolowitz & Marsh, 2000). Manitoba followed the example of California and BC by putting its GHG emission targets in legislation but maintained its original commitment to Canada's Kyoto targets, rather than pursue a more modest goal like its west coast partners. This led to a high-profile public commitment in the province that became problematic when attempting to maintain cross-government support for the file. In Ontario, the government created a centralized bureaucratic unit to manage the climate change file, similar to California and BC, but did not establish a cabinet committee to provide political support for the unit. It soon

became difficult for the CCS to drive action across departments and create a whole-of-government response without the clear support of cabinet.

Subnational momentum and the leadership of California led Canadian provinces to get into the climate change game and engage in policy transfer on a common set of instruments. For a time, it seemed these initiatives would spread across Canada and North America making climate change a unique case of subnational collaboration and leadership. However in the end, the force of collaboration could not overcome the traditional regional divisions that had stymied broader national policy in the past. Only limited convergence resulted in the policy mix of each jurisdiction which, once again, points to the importance of their unique domestic interests and circumstances.

Another lesson that provincial experience provides is that convergence cannot be determined by comparing a snapshot of policy in two or more jurisdictions at any given time and needs to be looked at over time. Looking at provincial commitments to jointly adopt a range of instruments in 2007 tells a very different story than the limited convergence that had resulted by 2012. Looking at whether policies became more similar over a given period of time is a more effective means of assessing whether policies are converging or diverging (Bennett, 1991b).

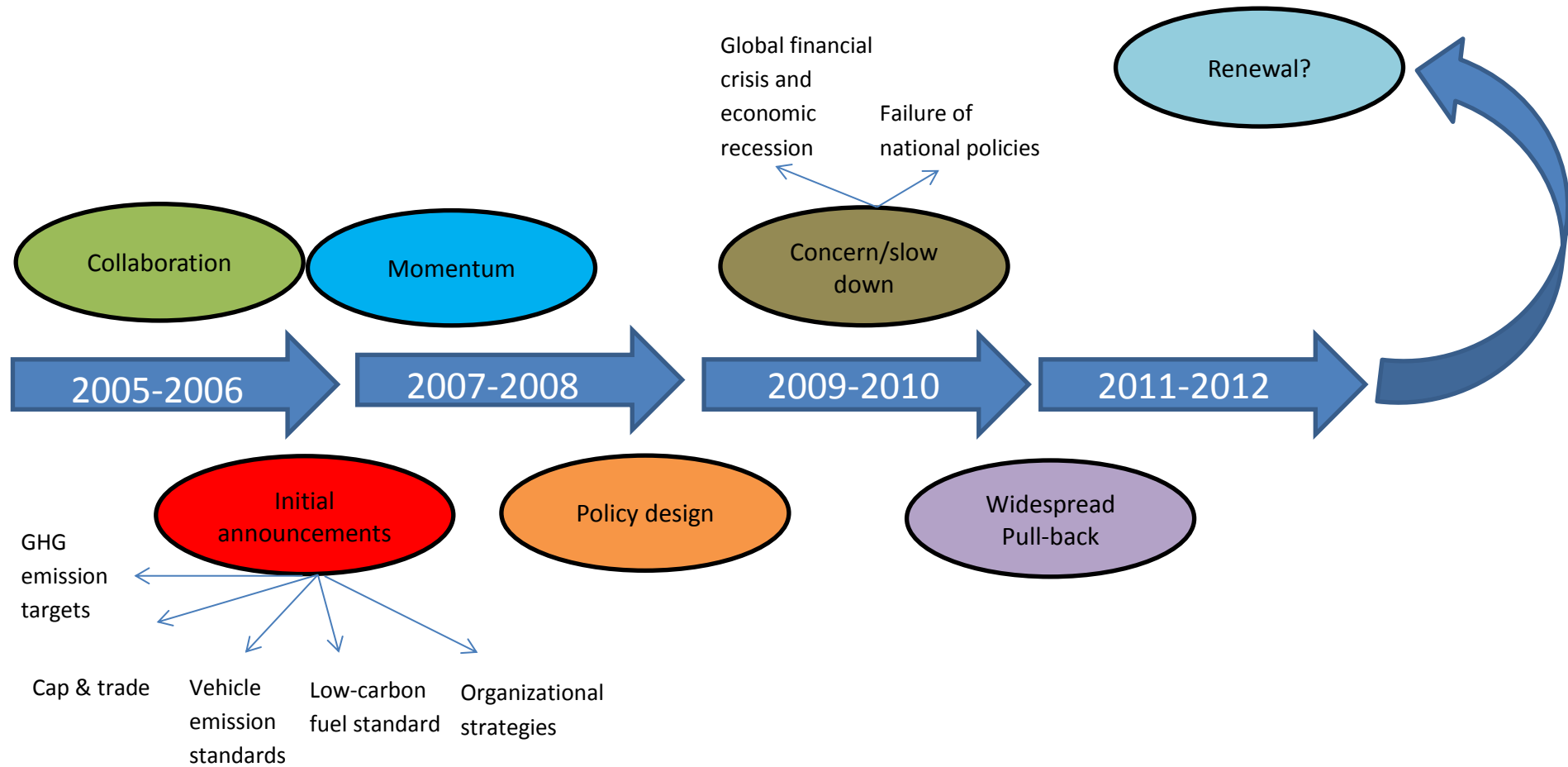
Domestic circumstances and variation in provincial policy instrument

The importance of regional economic and political differences in Canadian climate change policy has been well documented (Smith, 1998, Harrison, 2007; Simpson, et al., 2007; Winfield & MacDonald, 2008; 2012), almost becoming conventional wisdom. This study also recognizes the importance of the unique characteristics and circumstances of each province but takes a different approach by viewing them through the lens of policy transfer and their effect on

Figure 4: Detailed comparison of provincial policy development timelines



Figure 5: General timeline of provincial policy development



collaboration. Comparative analysis identified and reinforced the specific factors that shaped instrument selection in each case by virtue of their similarity or difference. The resulting accounts of provincial climate change policy explain the mix of instruments adopted in each jurisdiction.

Quebec's commitment to the UNFCCC process, which was in turn was a function of the high level of environmental consciousness in the province as well as the desire to distinguish itself from the federal government, explains its decision to participate in cap-and-trade and push harder than other provinces on vehicle emission standards. Like the other WCI provinces, Quebec stood to gain economically by partnering with other jurisdictions, particularly the large economy of California. But when the other provinces put cap-and-trade on the backburner in the late 2000s, Quebec continued undaunted. It established a cap-and-trade system because of its long history of involvement with UNFCCC and its desire to remain aligned with the international community while distinguishing itself from the federal government's more modest approach.

BC's leadership on climate change was driven by the personal conviction and adroit political leadership of its premier, Gordon Campbell (Harrison, 2012; Jaccard, 2012). Campbell was inspired by the political success of Schwarzenegger and provincial policy makers relied heavily on policies developed in California, such as vehicle emission and low-carbon fuel standards, which provided ready-made options that could be adopted quickly when building its own plan. The one California policy instrument which BC's did not adopt was cap-and-trade which was the result of the new economic reality in the late 2000s, the new leadership of Christie Clark and the fact that the province had already placed a price on carbon through its carbon tax.

Ontario displayed many similarities to Quebec. Both provinces had Liberal governments in the 2000s, sought economic development and job creation through the green economy and were committed to the UNFCCC process. However, Ontario entered regional partnerships largely to influence policies at the national and North American level rather than take action on its own. In explaining the difference between Ontario and Quebec's motivations, a senior Ontario government official with many years' experience working on climate change suggested that: "Quebec was less concerned about influencing the federal government because they viewed climate change as a provincial responsibility. Ontario, being the more federalist, was the one trying to influence federal policy". Most notably, the province wanted to ensure it would receive credit for the GHG reductions associated with phasing out coal under national or continental schemes. Thus, as the economic climate grew worse and it became clear a national or continental response was not imminent, policies like cap-and-trade were deemed too risky in Ontario because they could increase costs for its already beleaguered manufacturing industry.

As a hydro province, Manitoba saw the potential to benefit from Canadian and North American policies which could increase demand for renewable energy. But as a small jurisdiction the province sought to engage with others and follow California's lead to influence national and continental policy and was not inclined to take action on its own. Manitoba's engagement on climate change had always been tied to the expectation of a national or continental response. When it became clear these would not materialize, the government could not justify the costs of taking action on its own relative to the impact the province could make. Thus, while Manitoba often found itself working with Quebec to promote hydroelectricity through regional initiatives, the policy instrument mix it ended up adopting was more similar to

Ontario as both provinces fell back on less economically and politically risky options of reducing coal use and promoting renewable energy.

Despite largely eschewing collaboration, the selection of climate change policy instruments in Alberta was still influenced by policy decisions in California and the US because such a high portion of the province's oil and gas exports head south of the border. In most cases Alberta looked to opposed policies in California and develop its own policies to avoid being placed at a competitive disadvantage in the American market. But the need to maintain social license and support from civil society and governments, particularly in the US, also played a role in making Alberta one of the first and only jurisdictions in North America to regulate the oil and gas industry. The threat of penalties or restricted access to markets has, at times, led the province to consider bolstering these requirements.

Categorizing provincial policy responses

The variation in policy instrument mixes that emerged among provinces raises an interesting question: how should provincial policy responses be categorized in relation to each other? Every province indicated that they were leading on climate change, in media releases, speeches and policy documents, and indeed this study has frequently referred to them as such. But as this study has also shown, each province largely adopted a different mix of policy instruments depending on their unique circumstances and interests. Many even criticized the approaches of their counterparts as inadequate or misguided in intergovernmental forums and meetings.

Houle and MacDonald's (2012) categorization of provinces based on whether they framed climate change as an environmental threat, economic opportunity or economic threat,

borrowed from Rabe (2004), provides a good starting point. But these categories need to be updated as Ontario, Quebec, Manitoba and BC were all grouped as opportunistic for pursuing carbon pricing policies. Quebec and BC can still be located in this group, as they have a cap-and-trade system and carbon tax respectively; however, Ontario and Manitoba were unable to adopt these policies¹³ which would ostensibly place them in the economic threat category.

Houle and MacDonald's work still does not fully capture provincial responses. Manitoba and Ontario were clearly looking for economic opportunities on climate change and the strategy they adopted was replacing coal-fired electricity generation with generation from renewable sources as opposed to relying on voluntary measures. Furthermore, these provinces were not the only ones facing concerns about the economic threat of taking action on climate change after 2010. It may be more useful to refine Houle and MacDonald's approach.

Ontario and Manitoba delayed adopting many climate change policies or reversed course when it became clear broader national and regional policies would not emerge. Quebec and BC's persevered on collaborative climate change policies which can be explained by a unique commitment to the international processes in the former and strong political leadership coupled with a close relationship with California in the latter. Developing a subcategory within the grouping of provinces who viewed climate change as an economic opportunity based on "committed actors", who were prepared to take action on their own, and "conditional actors", who took action with the expectation of broader policies, more fully captures the variation in their responses.

¹³ Manitoba's limited tax on coal and Ontario's recent decision to participate in cap-and-trade are notwithstanding.

Figure 6: An adapted framework to categorize provincial climate change policy responses

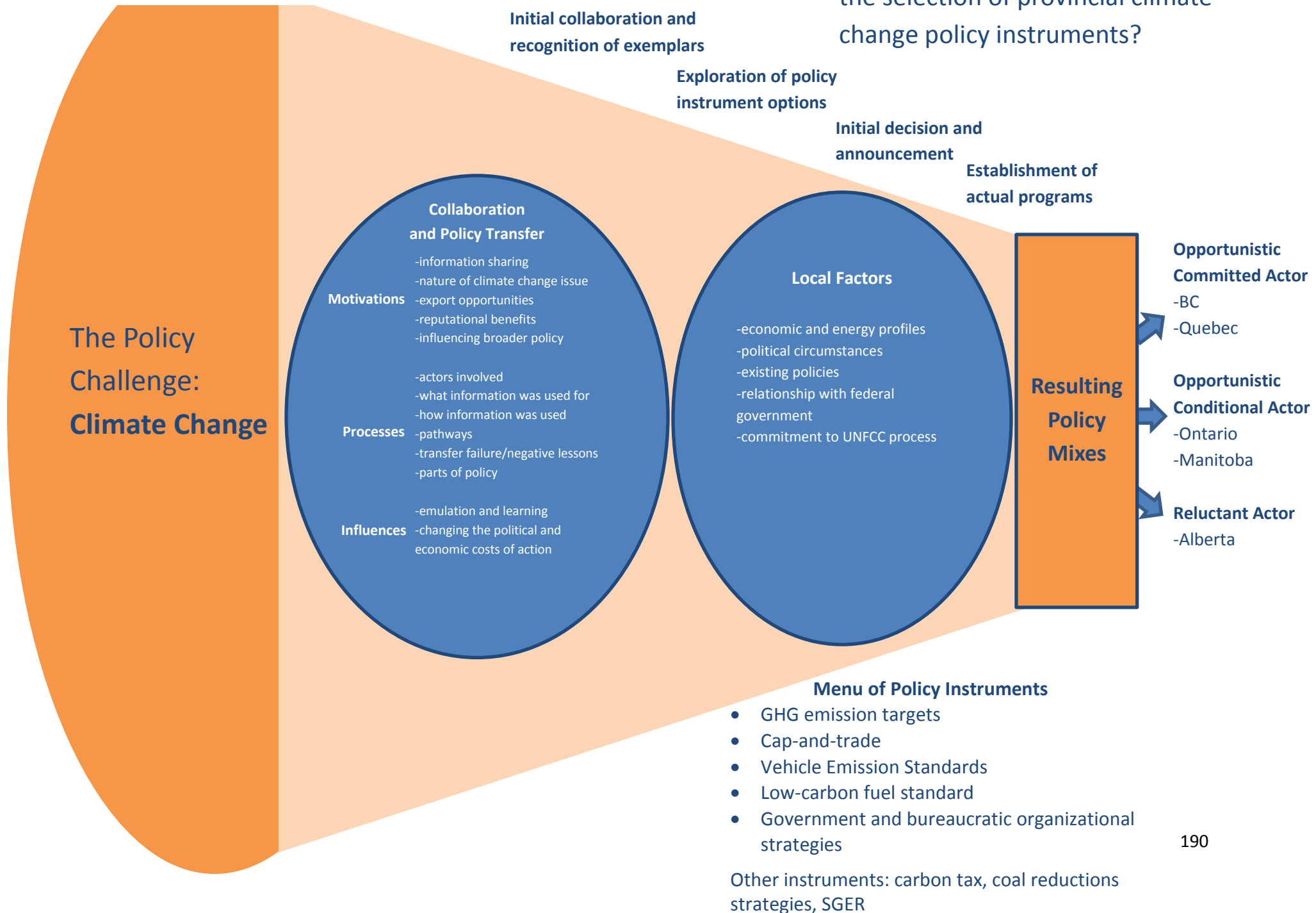
| Houle and MacDonald Framework | | | |
|-------------------------------|--|---|-------------------------------------|
| Label | Frame | Instrument | Provinces |
| Prime time | Defines climate change as environmental threat | Strong regulations – mandated reductions | None* |
| Opportunistic/Stealth | Defines climate change as economic opportunity | Financial instruments – cap-and-trade, carbon tax | Quebec BC Ontario Manitoba |
| Hostile/Indifferent | Defines climate change as economic threat | Voluntary measures – education, subsidies | Alberta |

| Adapted Framework | | | | |
|-----------------------|--|-------------------|--|---------------------|
| Label | Frame | Commitment | Instruments | Provinces |
| Prime time | Defines climate change as environmental threat | | Strong regulations – mandated reductions | None |
| Opportunistic/Stealth | Defines climate change as economic opportunity | Committed actor | Cap-and-trade, carbon tax | Quebec BC |
| | | Conditional actor | Cap-and-trade, carbon tax if part of a larger system or policy | Ontario Manitoba |
| Reluctant actor | Acts to protect interests from outside pressures | | Intensity regulations and technology fund | Alberta |
| Hostile/Indifferent | Defines climate change as economic threat | | Voluntary measures – education, subsidies | None |

*The Canadian federal government has developed regulations in individual sectors of the economy. However, the weak regulations for the coal industry and continued delays in the oil and gas regulation have meant that this approach is significantly less “prime time” than a comprehensive policy like a tax or cap-and-trade.

Figure 7: An analytical framework for explaining provincial climate change policy instrument selection

RESEARCH QUESTION: What explains the selection of provincial climate change policy instruments?



Houle and MacDonald (2012) note that Alberta provides a dilemma for categorization: it viewed many climate change policies as an economic threat, but was the first to regulate GHG emissions in the country. In a separate article Houle (2009) found this was the result of the province's desire to protect its jurisdictional authority over resources and provide an alternative to the federal government's strategy. The findings from this study provide an update to Houle's work by suggesting that after 2006 the major concern driving domestic policy actions switched from federal policy in Canada to the actions of US governments. Again, it is also helpful to adapt Houle and MacDonald's framework creating a new category of "reluctant actor" to better capture Alberta's unique experience as an innovator on climate change that has largely been driven by outside pressures. The corresponding policy instrument would be an intensity-based regulatory system with a technology fund, which is designed to ensure industry is not penalized while still slowing growth in their emissions.

Figure 6 provides an illustration of the adapted framework compared to the original employed by Houle and MacDonald. With an explanation of the policy mixes that resulted in each province, including the role of collaboration and policy transfer as well as local factors, Figure 7 builds on the analytical framework outlined in Chapter 3 by including the categorization of provinces based on the instruments they selected.

Limited convergence on climate change: How did it occur? Implications for the future?

Variation in the choice of policy instruments among provinces makes it difficult to characterize their responses as anything other than fragmented and uncoordinated; one climate change policy analyst even compared the provinces to "scattered gazelles". However, the findings of this study suggest that writing off provincial efforts as nothing more than a

patchwork of policies is tantamount to the over-used but illustrative metaphor of throwing the baby out with the bathwater. Convergence did occur in some important areas which suggests that provinces can overcome regional differences and work together on climate change under certain conditions. These areas of limited convergence provide an inroad or foothold upon which more substantial collaboration can be built in the future. This section examines the areas where convergence did occur, and how and why this took place to inform provincial efforts to collaborate and coordinate their responses in the future.

GHG reporting regulations

The failure of Canadian provinces to participate in WCI's carbon market notwithstanding, there has been coordination among provinces on the fundamental components of GHG emission regulations for large emitters. Provinces committed to developing common guidelines for measuring and reporting GHG emissions at the COF in 2007 and worked with US states to develop standardized protocols in North America. Even Alberta, which rejected cap-and-trade, engaged in limited collaboration and information sharing with other jurisdictions on pieces of its SGER system. Based on this work all provinces except Manitoba, which committed to establishing a regulation in 2013, put a regulation in place requiring large emitters to measure and report their emissions to government and BC, Ontario and Quebec have set similar thresholds for reporting at 25,000 tonnes.¹⁴

Collaboration and convergence on reporting regulations has often been overlooked, as attention has focused on the failure of cap-and-trade in North America in the late 2000s. Yet common reporting systems provide a foundation on which a future cap-and-trade program can be

¹⁴ B.C. has adopted a threshold of 10,000 tonnes but only requires those over 25,000 tonnes to have their reports verified by a third party

built. One policy maker in a province that did not participate in cap-and-trade called the provincial reporting system a “placeholder” that would make it easier to develop a system if a political window of opportunity arose in the future. The value of having the policy infrastructure to measure and report on emissions is now visible; subnational jurisdictions that are once again considering participating in cap-and-trade, such as Ontario, will not have to build their systems from the ground-up. Some policy makers interviewed for the study were even more optimistic suggesting that Quebec and California’s continued work on cap-and-trade provides a base of knowledge that will allow other subnational jurisdictions to learn from them and move quickly if a window of opportunity to participate in the regional market opens in their jurisdiction.

The argument against this more positive, long-term perspective on the subnational experience with cap-and-trade is as follows: it is essentially hoping for a mountain to emerge out of a mole hill because reporting measures do not involve concessions or costs from any province, and it would be much more difficult to get agreement on a cap-and-trade system which would involve real penalties and inter-jurisdictional transfers of wealth. However, theorists such as Ostrom (2008) have suggested that networks of trust built through collaboration can bolster regional climate change efforts by facilitating cooperation, and scholars like Selin and Vandever (2005) confirmed this occurred among provinces and states participating in the NEG-ECP in the early 2000s.

These scholars’ work suggests that collaborative policy work done by provinces through WCI could have value by strengthening networks and increasing trust across regions of the country which can facilitate compromise and consensus on a more robust policy tool in the future. Indeed, the work done through WCI provides a stepping stone to compromise and consensus on climate change in Canada. Several provincial policy makers that had worked on the

initiative felt their efforts to build relationships and collaborative infrastructure would contribute to cooperation in the future. One BC policy maker that had been involved in climate change policy for twenty years observed:

“People in Victoria know people that are working on the same issues in California or Ontario and even if the minister isn't asking them to, they can still pick up the phone and talk to their counterpart and find out what's going on, share information and move ahead. The formal relationships and processes that have been established to share information often seem onerous at the time because they have reporting requirements attached to them. But there is a bit of infrastructure there that stays regardless of how things are changing at the political level and it is still there and can be drawn on when needed. So I think those will be important.”

The strongest testament to the effectiveness of a long-term, incremental approach to cap-and-trade is Ontario's decision to rejoin Quebec and California in the WCI regional market. Several factors could explain the province's decision, including new leadership, the recovery from the economic downturn and increased action at the federal level on climate change regulations. However, the existence of foundational GHG reporting regulations in Ontario and the strength of relationships with the other participating jurisdictions have also paved the way for a seamless entry into cap-and-trade and cannot be discounted in explaining the province's renewed commitment.

Others have argued that the level of cooperation between WCI provinces will not matter because Alberta, Canada's largest and fastest growing emitter, is not participating (MacDonald, 2011; Winfield & MacDonald, 2012). But an interesting finding of this study - which has not

been widely reported in policy circles, academic literature or the media - is that the difference between Alberta's SGER and cap-and-trade are not as vast as commonly believed. Alberta carefully constructed its system so that it could adapt to a cap-and-trade program if it became widespread in North America and even engaged in information sharing with its WCI colleagues on some of the basic structural components of the system. These findings suggest that with a large number of jurisdictions on board, Alberta may not be as opposed to cap-and-trade as is often assumed. This is essentially what happened with Ontario and vehicle emission standards. The recent election of an NDP government in the province could open the door for Alberta to join the WCI provinces and pursue new policies such as cap-and-trade or a carbon tax.

Vehicle emissions standards

The emergence of harmonized vehicle emissions standards in North America provides the lone example of policy convergence in state and provincial policy instruments and an example of how subnational collaboration can catalyze national policies. Provinces were part of a process of policy diffusion,¹⁵ as the California policy spread to subnational governments across North America, eventually leading to adoption of the standard by federal governments in Canada and the US. The literature on provincial climate change policy has been skeptical of provinces' ability to develop a broader coordinated response (Harrison, 2012; MacDonald, VanNijnatten & Bjorn, 2005). Vehicle standards, while only one example, provides proof that subnational action can lead to policy convergence and push policy change on a national and continental scale.

Several California policy makers interviewed for this study, who played a central role in developing the state's climate change policies, suggested the key difference between the vehicle

¹⁵ Policy diffusion refers to the larger pattern by which policy spreads, which is related to, but distinct from, policy transfer which focuses on the micro-level processes by which cross-jurisdictional learning and emulation occurs.

emission standards and the LCFS, which was not diffused widely, was the opposition of industry groups. California has a long history and legal precedence under the federal Clean Air Act of setting vehicle emission standards and one of the California policy makers suggested that after forty years the auto-manufacturing industry finally began to work with the government rather than oppose them. In this individual's opinion the LCFS has been facing the same strong opposition from the oil and gas and ethanol industries that vehicle emission standards did in the 1970s, which is why it has yet to spread widely.

For Canadian provinces the proliferation of vehicle emission standards demonstrates how their political and economic clout increases when working with US states. Provinces were essentially piggy-backing with California and other US states, which were driving the adoption of standards in the US, rather than fomenting national policy change on their own. With the knowledge that a similar response was likely coming at the federal level in the US, provincial support for new vehicle emissions standards carried more weight than if it were simply another case of the premiers and provincial environment ministers lobbying Ottawa. The findings of this research project suggest that provincial leadership on issues like climate change are much more likely to lead to a national response when provinces act in concert with US states that are pushing for a similar policy in the US.

A counter-argument could be made that the Canada federal government was simply responding to whatever emerged out of the US, regardless of what the provinces were doing. Harrison (2012b) makes this argument by suggesting that regulations established by the Obama administration are more likely to lead to action on climate change from the Harper government than the efforts of provinces. The insights garnered for this study suggest Harrison's argument may gloss over key aspects of the process: a provincial policy maker at the highest level of

government suggested that they had received thanks from federal US officials for bringing the Canadian government along and making it easier to develop harmonized standards for both countries. At the very least, provinces can have a role in facilitating the adoption of US policies at the federal level in Canada.

The other argument Harrison (2012b) has made is that rules governing vehicle emissions are an example of a product standard, which create costs in the jurisdiction where the product is made - vehicles in Ontario or fuel in Alberta - rather than the jurisdiction where the policy is enacted. Harrison argues that widespread adoption of vehicle emissions occurred because they would not result in increased costs in jurisdictions not home to a large auto-manufacturing industry. Therefore, broad diffusion of other policies that would entail domestic costs in adopting jurisdictions is unlikely.

Harrison's argument is difficult to deny particularly given the failure of cap-and-trade, a policy that had the potential to increase costs in adopting jurisdictions. But taking a long term approach and viewing collaborative institutions and policies like GHG reporting regulations and vehicle emissions standards as foundations upon which further action can be built increases the prospect of collaboration on policies which entail larger and broadly-based costs. The nature and timing of the global financial crisis and the subsequent economic downturn in North America, which emerged just as provinces and states were getting ready to enact their trading systems, makes it difficult to say with certainty that in other circumstances provinces would not have been willing to take on more costly policies. One policy maker interviewed for this study, at the forefront of developing innovative carbon pricing policies, was dismayed that they did not get to see how these instruments would function in regular circumstances because the global financial crisis and economic recession represented such an anomaly. At the very least, the economic

downturn muddies the waters regarding the difference between product standards and other policies which reduce GHG emissions indicating that the lessons learned from the former could still be valuable in development and analysis of the latter.

Assessing policy transfer and the analytical framework

Chapter 3 indicated that policy transfer has difficulty accounting for policy change. This study reinforces this critique as, on its own, the approach was limited in its capacity to explain provincial instrument selection. Policy transfer was helpful in describing the process of information sharing, such as identifying actors, the different ways information was used, and the pathways through which learning occurred. But as predicted, throughout the course of the study it became clear that describing the process of learning and information sharing was not sufficient to explain the adoption of instruments. For example on cap-and-trade, all WCI provinces engaged in the initial stages of transfer, identification of exemplars, consideration of instruments and formal announcements, but Quebec was the only province to move to policy adoption. This insight highlights the importance of distinguishing between the transfer of information and the adoption of policy and the value this study's framework provides in analysing the different stages of the transfer process.¹⁶

The concept of convergence was useful in determining when the transfer of information led to the adoption of policy by focusing on whether provincial policies became more similar overtime. This analysis led to the study's main finding that limited convergence resulted in provincial policy mixes. But the literature on convergence was restricted in its contribution to explaining and comparing provincial instrument mixes because the concept was originally

¹⁶ See Chapter 3, p. 47

designed to make comparisons at the international level, assessing and explaining similarity in the policy issues countries faced and how they were addressed (see Wilensky, 1975).

Convergence analysis has typically been focused at a broad level in terms of the indicators it uses to assess policy responses, such as aggregate government spending or the number of laws and regulations established in a policy area, and the explanations it provides for similarity, such as increasing levels of industrialization. The approach is less concerned with the micro-level decisions of individual policy makers. In this study, the convergence literature was helpful in differentiating the parts of policy on which similarity and difference occurred, such as goals and different instruments (Bennett, 1991b). But the assistance it provided did not extend beyond this because, in general, comparing and explaining provincial instrument selection requires a more refined analytical tool.

The findings of this study indicate that provinces were influenced by the sense of momentum building among subnational actors more than the desire to learn about policy models from abroad. Therefore, to better explain policy adoption, analysis of policy transfer must account for the range of cross-jurisdictional forces beyond information sharing and learning. Like policy convergence, the policy transfer approach was developed to explain information sharing and learning between autonomous countries at the international level. The approach is not an ideal fit for Canadian provinces which operate in an economically and politically integrated federal system and in the shadow of the much larger US. In these circumstances, learning is not the only cross-jurisdictional influence driving provinces and other subnational actors to work together or shaping their responses – and frequently not the most important. Concepts such as policy band-wagoning, inspiration and benchmarking hint at the importance of cross-jurisdictional momentum but the capacity to investigate the influence they have on policy

development is limited as the bulk of the transfer literature focuses on cross-jurisdictional learning.

The analytical framework of this study expanded the study of policy transfer beyond the process of information sharing and how learning occurred (the second line of inquiry) to investigate why provinces engaged in transfer (the first line of inquiry) and how this affected their policy responses (the third line of inquiry). These questions capture a broader range of cross-jurisdictional influences which contribute to policy transfer, beyond learning, and provide a more fulsome explanation of instrument selection.

The framework tapped into a range of literatures on US state motivations for taking action on climate change, the California effect and policy making in federal systems to address the first and third lines of inquiry. The literature on the California effect and policy making in federal jurisdictions provides some insight into the effect of momentum; it effects decision makers' calculations of the risks and costs of taking action. Hoberg's (1991) framework addressing the US influence on Canadian environmental policy also helps identify that climate change policy can be influenced by the exportation of costs from other jurisdictions, directly and indirectly, as well as the export of knowledge through information sharing. This was particularly useful in understanding the case of Alberta which did not engage widely in information sharing and learning but was heavily influenced by policies developed in California and the US.

Hoberg's framework suffers from the same limitations as policy transfer as it provides a detailed account of the pathways through which the export of knowledge occurs, including the role of public officials, activists and the media. However, less detail is provided about how the imposition of costs from the US affects policy decisions in Canada. Hoberg assumes that

Canadian governments will adjust policy based on decisions in the US, but Alberta's primary strategy was to go on the offensive seeking to influence policy south of the border. By attempting to dissuade US jurisdictions from adopting the LCFS and aligning themselves with powerful business and industry lobbies, the Alberta government acted as a force against broader diffusion of the policy, which highlights the ability of provinces to influence policy outcomes in the US rather than simply being a policy-taker.

The number of cases where Canadian provinces have the capacity to influence environmental policy in the US may be limited but the example of the LCFS highlights that policy influence is not always a one-way street from the US to Canada, without any speed bumps or detours, or some influence in the opposite direction. This finding suggest that while Hoberg's framework contributes to a broader conception of cross-jurisdictional influences it also needs to be adapted or built upon to better reflect the reality of complex relationship between Canadian provinces and US jurisdictions. This relationship involves not only governments but non-government actors like industry and environmental groups.

The findings of this study also confirmed the importance of local factors in explaining instrument selection (McCann & Ward, 2012). This conclusion partly results from the empirical finding that collaboration was unable to overcome regional differences among provinces and only resulted in limited convergence in their instrument mixes. However, local factors did not just act as an opposing force against transfer; they also conditioned the lessons that provinces drew and played an important role in determining whether policy makers' efforts to transfer policy ultimately lead to adoption. For example, Quebec was the only province to participate in cap-and-trade, which involved policy transfer and information sharing, because of its domestic circumstances, a strong environmental consciousness in the province, and its unique position in

Canadian federation. A key strength of the analytical framework was outlining the domestic factors salient in each province. Exploring the motivations and effects of collaboration, in addition to learning, made it possible to draw conclusions about the relationship between domestic factors and external influences. This was critical to developing a more comprehensive explanation of instrument selection in each province.

A note on the study's comparative approach

The comparative approach of the study was critical in employing the analytical framework and drawing conclusions about the influence of collaboration and policy transfer on instrument selection. Comparative analysis provided explanations for policy choices by studying policy outcomes in different contexts (Gupta, 2012). Looking for similarities and differences in provincial responses, rather than focusing on one jurisdiction, helped identify, develop and confirm empirically-grounded explanations of instrument choice in each province. Including five cases in the study confirmed the importance of momentum and “strength in numbers” which would not have been possible through analysis of a single province. Comparative analysis was also crucial in overcoming the tendency to group the WCI provinces together. The analysis contrasted the different motivations that each province had for engaging in collaboration and how this influenced instrument selection.

The patterns and trends identified through comparative analysis contributed to theoretical and conceptual frameworks (Gupta, 2012). This included the suggestion that policy transfer analysis needs to better account for cross-jurisdictional influences outside of learning and the adaption of Houle and MacDonald's (2012) categorization of provinces. Finally, comparative analysis contributed to the discovery of anomalies which provided more information about

policy instruments (Gupta, 2012). In comparing Alberta to the WCI provinces, similarities in GHG reporting regulations and reporting protocols were found: an anomaly given Alberta's desire to adopt its own approach to climate change. This provided more information on cap-and-trade and Alberta's SGER system and was a crucial finding of the study as it demonstrated Alberta did engage in limited collaboration. These findings and contributions were made possible through a comparative analysis of five case studies and would not have emerged through analysis of a single, or even two, cases.

Conclusion

This study concludes that even though collaboration and policy transfer played a different role in the policy mix that resulted in each province, it is an important aspect of their experience developing climate change policy and needs to be included in a comprehensive explanation of their policy responses. The collaboration and momentum among subnational jurisdictions, bolstered by the leadership of California, explains why provinces attempted to overcome the inertia towards agreement and compromise on climate change that exists in Canada. While eventually provinces retreated to protect their local interests when the economic and political conditions became less conducive to action on climate change, the limited convergence on policy instruments that did result provides a foundation that can lead to collaboration in the future. By studying these areas of convergence, this study identifies how and under what conditions collaboration could be successful in the future.

The cases of common GHG reporting regulations and vehicle emission standards suggest that policy convergence on provincial climate change instruments can only be achieved over a long period of time. Convergence is most likely when provinces are working with US states in an

attempt to influence continental policy while the support of industry is crucial. Findings such as this are frequently passed over in analysis which focuses exclusively on domestic factors and views regional differences as largely insurmountable. These findings can lead to new avenues of academic research, inform debates about the provincial role in climate change policy making in Canada and create practical lessons for policy makers, which are the subject of the concluding chapter of this study.

CHAPTER 11

CONCLUSION

At the end of 2015, the international community will come together in Paris in an attempt to establish a successor to the Copenhagen agreement and set a course on climate change for the future. To fulfil its obligation to the international process, the Canadian federal government is relying heavily on provinces to determine what the country has accomplished and what it will be able to do going forward (Cheadle, 2015). This highlights that most of the policies and actions reducing Canada's GHG reductions have come, and are expected to come, at the subnational level. Given the important role provinces continue to play in addressing climate change in Canada, the concluding chapter of this study links its findings to ongoing debates about climate change policy in the country, future areas of academic research and lessons regarding the practice of policy making.

The establishment of a range of policy instruments and convergence in limited areas suggests that provinces should be viewed as first-movers that have set the stage for future action on climate change rather than merely a "poor substitute" or a "next best option" to a federal response. Even if Ottawa decides to become more involved at some point, provinces must continue to play an important leadership role in Canadian climate change policy. These conclusions lead to several areas of future research for scholars of climate change policy in Canada. This includes examining the policy responses of provinces not covered in this research study, focusing exclusively on Alberta and its unique experience, capturing the second wave of subnational momentum that is emerging on climate change and the importance of policy durability and comparing the intergovernmental institutions used to develop climate change

policy in Canada. Finally, the findings of the research project point to several lessons for climate change policy makers. These include taking a long-term view of collaboration, designing carbon pricing policies to increase durability, adopting horizontal management strategies and providing political support to provincial climate change bureaucracies and setting realistic provincial targets.

Debating the role of provinces in Canadian climate change policy

The extent to which collaboration has influenced provincial instrument selection and the degree of convergence in their responses is at the heart of the debate about provincial leadership on climate change in Canada. At the academic level, this debate has centred on whether provincial responses represent a dynamic form of decentralized government or an inefficient patchwork of policies. At the political level, the Harper government's desire to match the US has created a slow movement towards regulations in individual sectors, such as vehicle emissions and coal-fired electricity plants, leaving provinces to do more on their own if they choose. The opposition NDP has maintained the need for a single price on carbon for the entire country while federal Liberal leader Justin Trudeau has tread a middle ground between the Conservatives and the NDP, proposing a plan that would create a national standard for pricing carbon but allow provinces to pursue their own strategies to meet it (MacGregor, 2015). Despite ardent debate about the provincial role in addressing climate change in Canada, knowledge about their policy responses is still limited and, by including the role of policy transfer and collaboration in the selection of instruments, the findings produced by this study are necessary for a well-informed discussion to ensue.

The story of provincial climate change leadership also has relevance for a broader discussion of provinces' ability to generate national policy solutions in Canada without the involvement of the federal government. Climate change has been cited as an example of provinces' increasing role in policy development in Canada, which is attributed to forces of globalization and economic liberalization which erode the authority of the state, governance trends which seek to devolve power from centralized governments, and the constitutional authority of provinces in crucial policy areas, such as the environment (Atkinson, et al., 2013). Alberta's high-profile opposition to Kyoto (Lifin, 2000; Kukuchka, 2005) and Quebec's commitment to the UNFCCC (Happaerts, 2012a; 2012b; Happaerts & Van den Brande, 2011) are examples of provincial efforts to challenge or by-pass the federal government on international decisions that directly affect their interests. The unique contribution of this study is findings about the ability of Canadian provinces to collaborate to institute policy change at the national level in addition to their international engagement.

It is tempting to view provincial action on climate change as an example of their limitations in creating national policy responses on their own, and infer the continued need for involvement from the federal government. But there may be middle ground between a uniform national response, imposed from the federal government, and a disparate patchwork of policies led by the provinces. Many policy makers interviewed for the study noted that even if the federal government left the provinces to lead, but played a constructive facilitation role (rather than being indifferent or obstructionist), this would have helped move climate change policy forward in the country. When debating the merits of provincial or federal leadership on climate change, it is essential to consider the variety of roles each level of government can have and how they

interact in a multi-level governance context, rather than assuming one or the other must be the sole actor in addressing climate change.

The findings of this study suggest that provinces have played an important role as first-movers who navigated an initial wave of policy development by marshalling political support, organizing government and bureaucratic resources to develop policy and experimenting with a range of policy instruments. Their efforts at collaboration led to limited convergence which suggests that, as climate change policy matures, there may come a time when a more active role from the federal government is warranted to coordinate and bring coherence to provincial responses. However, the experience provinces have gained in developing policies which suit their individual needs, while pooling their efforts to move forward, demands that they continue to play a leadership role in developing Canada's response to climate change in the future.

California's vehicle emission standards demonstrate the potential for provinces to drive broader national policies through collaboration with US states looking to create a similar response south of the border. Because the Harper government had clearly stated it would not move forward on any climate change policy without the US, it was mutually advantageous for Canadian provincial policy makers and US states to coordinate their efforts and create a unified pressure for new North American policies. Working with states trying to influence the American federal government was arguably a more effective strategy for provinces than openly criticizing Ottawa in international forums or attempting to broker a deal among themselves; both were largely unsuccessful in influencing national policy in Canada. These findings confirm the assertions of scholars, in Canada and the US, who argue for a North American or regional approach to climate change policy which does not confine analysis to national borders (VanNijnatten, 2003; 2004; Craik, Studer & VanNijnatten, 2013; Selin & Vandever, 2011).

The question facing Canada on climate change is no longer whether a provincially-led approach is more effective than a central solution. The time for that has passed as policy responses have already emerged and taken hold in most provinces, even though it may result in a patchwork across the country. The more important question is, given that provinces have been developing their own responses for the last decade, what is the best way to move forward and take advantage of the work that has been done at the provincial level when taking the next step towards addressing climate change in Canada? The findings of this study point to several areas of future academic research on climate change policy in Canada.

Areas of future academic research

Rabe (2007) suggests that Canadian provinces had a late start compared to US states in developing climate change policies because they were focused on the Kyoto debate. Similarly, the academic study of Canadian climate change policy has been pre-occupied with national policy and international commitments. This literature regards the country's regional differences as a roadblock that prevents it from moving towards these goals and pays less attention to what provinces have done on their own. While Canadian provinces began to move on climate change in the mid-2000s and have been the primary location of innovative policy development in the country, the academic study of their efforts is still playing catch up which leaves significant scope for new research.

Studying other provinces and territories

The Canadian provinces not covered in this study - Saskatchewan, the four Atlantic provinces, and the three territories – would be a natural area for future study. While these jurisdictions all share similarities with those covered in this study, the findings revealed

important differences between provinces can exist even when they have broad similarities such as economic and energy profiles. Thus, a second phase of research could focus on the eight remaining provincial and territorial jurisdictions in Canada.

The Atlantic provinces did not participate in WCI but did engage with Northeastern US states and Quebec meaning that, similar to the WCI provinces, collaboration and learning with other jurisdictions was a component of their response. Research conducted for this study also revealed that Saskatchewan borrowed heavily from Alberta's oil and gas regulations in developing its own system, creating the potential for policy transfer. Therefore, the comparative approach and the analytical framework developed for this study would usefully guide further research on these provinces' policy responses.

Alberta's unique experience

Alberta plays a central role in reducing Canada's GHG emissions and the province is set to release an updated climate change plan under its first ever NDP government. Undertaking studies that can increase knowledge and information of the province's policy response should be a priority of Canadian climate change scholars. A key goal should be to move beyond the characterization of the province as intransigent or indifferent on climate change. Scholars should examine how it has sought to adopt policies which strike a balance between keeping the oil and gas industry competitive, and achieving the broader social license within North America to ensure its continued viability.

A good place to start would be the influence of US decisions on Alberta's climate change policy. For example, the Alberta government was successful in opposing California's LCFS as it did not diffuse widely among state governments and was not adopted at the federal level in the

US. However, the province's efforts to stymie the policy may also have tarnished its reputation south of the border and contributed to opposition to the Keystone Pipeline, a project critical to oil sands expansion but repeatedly delayed due to opposition from American civil society. More recently, the shift to an NDP government has put the menu of climate change instruments back on the table, including adjustments to its SGER system or even a carbon tax or participation in cap-and-trade which is likely to open up more avenues of academic inquiry.

Policy durability and the second wave of momentum on climate change

This study has argued for a long-term view of subnational collaboration and an incremental approach to policy making that looks to build on foundational instruments to facilitate cooperation in the future. With Ontario recently committing to join Quebec in cap-and-trade, BC's carbon tax continuing to gain international accolades and new action plans promised in Alberta and Manitoba, there are signs that this approach is already working. Equally as important, many US states - such as Oregon, Washington and those in the Northeast - are renewing their resolve to join California and expand their efforts on climate change, which will create momentum south of the border that could compliment and facilitate provincial action in Canada. This second wave of momentum represents the next critical area for research on provincial climate change policies. What led Ontario to rejoin its WCI partners, did Oregon and Washington learn lessons from BC given the province's record of leadership in North America and how will smaller jurisdictions like Manitoba react if the prospect of broader regional cooperation emerges again. These are just some possible avenues of future research in this area.

A key concept that should be employed moving into this second round of subnational action climate change is the resiliency and durability of policy. While studies have emerged

regarding how support for climate change policies can be garnered (Rabe & Borick, 2012) and their effectiveness once adopted (Elgie & McClay 2013), the next steps should focus on whether and how these policies are retained through changes in political and economic conditions. Policy durability is critical to a long-term, incremental approach to policy making as initial initiatives must stand up over time if they are to provide a foundation for future policy development. This area of research is just emerging in the US (Rabe, in press) and has yet to be addressed in Canada. However, recent work in the field of public policy on anchoring policy reforms and what occurs after major reforms are enacted represents an appropriate entry point to this area of study (Lindquist, Vincent & Wanna, 2011, Patashnik, 2008). Some initial suggestions for designing resilient climate change policies are provided in the section on lessons for policy makers later in this chapter.

Federal institutions and climate governance

An interesting feature of provincial collaboration on climate change was that it occurred through new forums like the COF and WCI. These were subnational governance forums which did not involve the federal government, instead of traditional intergovernmental forums like the consensus-based Joint Meeting of Ministers of Energy and the Environment (JMM) that included all provincial, territorial and federal governments. These alternative governance arrangements were voluntary; in some cases not all provinces participated and no economic penalties or legal sanctions existed to compel compliance or keep participants from opting out. This became abundantly clear when every jurisdiction except California and Quebec pulled out of WCI's cap-and-trade program. Focusing on the benefits and disadvantages of these new forms of provincial collaboration and comparing them to traditional venues would contribute to national debates about climate change in Canada and the role of each level of government.

There should be further study of the unique characteristics of these collaborative arrangements, which some suggest represent a new form of environmental governance based on geographic rather than political boundaries (VanNijnatten & Craik, 2013; Selin & Vandever, 2005), and their impact on climate change policy. There is scope to link these institutions to the emerging field of climate governance. The failure of international climate change negotiations over the last two decades has led scholars to ask if alternative governance arrangements - such as bilateral and regional relations or a polycentric approach - which endorse action at multiple levels of governance, may be more effective (Hoffman, 2012; Ostrom; 2009; Urpelainen, 2013; Kellow, 2012; Balsiger & Prys, 2014; Rayner, 2010). This is typically referred to as a bottom-up process, rather than a top-down solution coordinated by the UNFCCC; action at the regional scale is an important element of this approach. Studying subnational collaboration by Canadian provinces and US states on climate change provides an empirical example that could produce valuable insight and information regarding new models of climate change governance.

Lessons for policy makers

In the spirit of moving climate change policy in Canada forward, several findings from the provincial experience point to lessons that can contribute to policymaking in the future. While provincial leadership on climate change has frequently been met by academics with a shrug of the shoulders and the argument that it cannot be substituted for a national framework, provinces continue to experiment with different solutions. This provides information and lessons that can contribute to the development of climate change policy in Canada.

Taking a long term view of collaboration

The first lesson emerging from provincial experience is the difficulty that governments face in addressing a complex and controversial issue like climate change. This difficulty is exacerbated when pursuing a complicated policy like cap-and-trade through a multi-jurisdictional approach. As one observer of climate change policy, who was interviewed for the study, stated: “I just think government at the time thought it was going to be a heck of a lot easier than it actually turned out to be”.

It is particularly difficult to avoid alarm on climate change when scientists have indicated that there is a finite period of time left to avoid its worst effects (International Panel on Climate Change [IPCC], n.d.). But policy makers still need to take a long term view of collaboration, when only incremental steps are possible, to continue building on the limited convergence that occurred to establish trust and understanding among governments as well as giving industry time to come on board. This is not to say that public servants, politicians and activists are wrong to push for faster movement on policies, but rather, to ensure that a narrative of failure does not permeate their efforts to act on climate change and become detrimental to future progress.

Designing resilient climate change policy instruments

An incremental approach to climate change policy seeks to use convergence on smaller instruments, or components of an instrument, to support future collaboration in areas that are more contested. As discussed, this approach requires that foundational policies are resilient and durable to ensure a foothold for future collaboration. How climate change policies are designed can affect their long term retention and perseverance through turbulence in the economic and political environment and should be a key consideration for policy makers.

An important design feature of Quebec's carbon pricing policies, which contributed to their adoption and retention, is that the government became dependent on the resulting revenue flows, making it difficult to eliminate the policy even if political and economic circumstances changed. Quebec's carbon levy funded other provincial climate change initiatives, and the revenue generated from cap-and-trade is similarly earmarked. Cancelling the tax or backing out of cap-and-trade would be difficult as it would derail the province's entire plans for climate change, not just its carbon pricing policy. Similarly, the revenue-neutrality of BC's carbon tax required that other taxes be reduced to maintain the overall tax burden; if it was eliminated the government would have to increase taxes somewhere else to reconcile its budget. Both solutions highlight the value of designing carbon pricing policies so they become integrated into a broader climate change or tax framework to ensure they cannot be easily undone.

Managing climate change policy

In addition to the design of policy instruments, how government bureaucracies are organized to manage policy development and implement programs can also affect the development, adoption and retention of climate change policies. The provincial experience highlights the importance of administrative and organizational decisions in establishing climate change policies. As a government official who headed one province's climate change unit explained:

“The whole governance aspect is still lacking. Either it seems that climate change is somewhere close to the premier's office because there's cache associated with it and there's more power, you can say that thou shalt do this; or it's embedded lower down in government within a department and you don't have the same reach or tentacles into other

areas. So ultimately to be successful you've got to have some kind of a structure or organization that allows you to work across departments.”

The findings of this study underscore the importance of adopting horizontal management strategies in the administration and management of climate change policy. Bakvis and Juillet (2004) define horizontal management as “the coordination and management of a set of activities between two or more organizational units, where the units in question do not have hierarchical control over each other and where the aim is to generate outcomes that cannot be achieved by working in isolation” (p.8). Horizontal management is a popular concept and an ongoing concern among scholars and practitioners of public administration (Lindquist, 2014). The tools and lessons from this area of research provide insight into the issues and challenges faced by climate change policy makers in Canadian provinces.

Provinces employed different horizontal strategies for managing the climate change, an issue which involves coordinating different departments and agencies that are responsible for the file across. These include deputy minister committees, cabinet committees and centralized bureaucratic units, to addressing climate change. By studying and comparing these various administrative strategies, this study provides lessons about how to manage the climate change file to ensure political support and enthusiasm for action on climate change can be translated down to the bureaucracy.

The study found, not surprisingly, that without a strong political commitment, such as a dedicated cabinet committee, a central unit in the bureaucracy managing the climate change file will face an uphill battle putting an ambitious agenda in place. In BC, where there was a strong commitment from the premier, the unit responsible for the file was able to ensure its priority

throughout government working from the premier's office. Without a similar political commitment in Ontario, the bureaucratic unit responsible for climate change, also located centrally in the cabinet office, took on more of a management function and was unable to bring other departments along when climate change fell off their radar. These two experiences demonstrate that creating a strong central push on an issue like climate change, which involves several departments, requires a unit that can manage the file and provide sufficient political commitment to back it up and "crack the whip" if other departments are not pulling their weight.

Setting realistic targets

A factor which influenced cross-government support for climate change policies was the provincial targets adopted in each jurisdiction. All provinces have faced challenges in meeting the GHG emission reduction targets they set in the mid-2000s. This is due to a variety of factors including the onset of the global economic downturn, the failure of climate change policies at the national level in North America and changes in provincial political leadership. In many cases, this was exacerbated by the ambitious goals that provinces set in the initial furor over climate change which made it even more difficult to achieve what they set out to, creating a classic case of governments overpromising and under-delivering. One expert who worked inside and outside government called the failure to meet GHG emission goals the "Achilles' heel" of climate change policy that all provinces are now struggling with to some degree.

In Manitoba, the province's support for Kyoto led it to adopt Canada's international targets in its own plan. A few years into implementation, an auditor general report indicated the province was not close to meeting its targets which affected support for the file within government. Independent officers in Ontario and Alberta have continually highlighted the gap

between their province's goals and their current emissions bringing negative attention to the file and creating uncertainty around the government's plans for climate change (OOAG, 2013; Alberta Auditor General, 2014). While BC and Quebec have also faced questions about their goals both provinces have been able to demonstrate better progress towards them meaning their targets have remained an argument for pushing forward with their climate change agendas, rather than abandoning them.

Sub-federal lessons for policy transfer

This study has focused on policy transfer among provinces and some US states; however, the effectiveness of the analytical framework in explaining provincial policy responses suggests that the study of transfer at the sub-federal level could be useful in addressing blind spots in the broader policy transfer and convergence literature. The analytical framework of this study highlights the importance of differentiating between different phases of the transfer process, considering motivations and influences of collaboration outside of learning and considering salient domestic factors. These insights address the concerns of James and Lodge (2003), who assert policy transfer cannot fully explain policy change, and McCann and Ward (2012), who argue it ignores the importance of local factors in policy development.

It might be argued that because sub-federal jurisdictions share a common political and economic system, they operate in a fundamentally different context than autonomous jurisdictions at the international level. However, the relationships between many countries or nation-states are characterized by integration. For example, Canada and the United States have strong political connections and there is deep integration between their economies. Cross-jurisdictional influences outside of learning about policy will clearly be influential on policy

development in these two jurisdictions. The value of the insights derived from the studies of sub-federal transfer may depend on the level of political and economic integration between two countries. Nonetheless, the primary challenge for those who study policy transfer is to connect the dots between the transfer of information and the adoption of policy to better explain policy change. The study of transfer among sub-federal jurisdictions and the insights of the analytical framework used in this study provide an attractive starting point.

Negative-lessons in policy transfer

This study focused on policy transfer and convergence in policy instruments, but there were many cases when cross-jurisdictional learning led to negative-lessons where provinces avoided or rejected a policy based on the experience of other jurisdictions (Dolowitz & Marsh, 2000). For example, policy makers working on the SGER in Alberta indicated that they closely monitored the development of WCI and other cap-and-trade systems, decided that the policy was not appropriate given the government's plans for growth in the province and used that information to develop its own system.

In other cases, negative lessons were used to justify existing decisions or positions (Bennett, 1991a). One climate change official in BC indicated that the province saw the criticism Alberta received from environmental groups and the international community for adopting intensity targets which firmed its resolve to set absolute targets and look at a price on carbon. Another example comes from Manitoba and BC, which were unlikely to promote wind and solar energy to the same extent as Ontario, given their access to cheap, clean hydroelectricity. However, policy makers interviewed in both provinces indicated the political fallout from

renewable energy initiatives in Ontario further convinced them that policies like the feed-in tariff were not feasible.

Negative-lessons have been given less attention in the study of policy transfer even though there is no reason to assume they occur less often or have less impact on policy decisions. Therefore, they represent an important area of future research in the area of policy transfer. Rather than being grouped in with instances of failed transfer, negative-lessons should be applied to existing transfer frameworks, including which actors are likely to use them, the different purposes for which they are used, how they are used, the pathways through which they occur, and the parts of policy on which they were salient. This could be compared to other instances of cross-jurisdictional learning to determine if negative-lessons operate in appreciably different ways than “regular” transfer.

Conclusion

As the UNFCCC Paris conference approaches and a second wave of subnational climate change policy appears imminent, it is important for those making and studying climate change policy in Canada to assign new priority to understanding and learning lessons from provincial policy responses in the last decade to facilitate and inform the next round of provincial policy development. This research study represents a critical step in understanding the provincial response to climate change by building on existing analysis of policy instrument selection to include the role of collaboration and cross-jurisdictional learning. The analysis and findings of the study make an important contribution to the academic study of climate change in Canada, policy debates about the role of provinces in climate change policy and practical policy making

and provides the means to move forward in these areas and prepare for climate change policy development and subnational activity in Canada in the future.

References

- \$2B carbon capture and storage plan released. (2008, February 1). *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/calgary/2b-carbon-capture-and-storage-plan-released-1.701912>
- Alberta Auditor General. (2014). Report of the Auditor General of Alberta – July 2014. Retrieved from <http://www.oag.ab.ca/webfiles/reports/AGJuly2014Report.pdf>
- Alberta Environment. (2002). *Albertans and climate change: Taking action* (Pub No. I/922). Edmonton, AB.
- Alberta Government. (2002). Alberta government unwavering in its support of Confederation, Klein confirms. Retrieved from <http://alberta.ca/release.cfm?xID=13255>
- Alberta Government. (2003). *Alberta's actions on climate change get international profile*. Retrieved from <http://alberta.ca/release.cfm?xID=15129>
- Alberta Environment. (2008). Alberta's 2008 climate change strategy: Responsibility, leadership, action. (ISBN: 978-0-7785-6789-9). Edmonton, AB.
- Atkinson, M., Beland, D., Marchildon, G., McNutt, K., Phillips, P., & Rasmussen, K. (2013). *Governance and public policy in Canada: A view from the provinces*. Toronto: Toronto University Press.
- Australian Public Service Commission. (2007). *Tackling wicked problems: A public policy perspective*. Retrieved from <http://www.apsc.gov.au/publications-and-media/archive/publications-archive/tackling-wicked-problems>
- Bakvis, H., & Juillet, L. (2004). *The horizontal challenge: Line departments, central agencies and leadership*. Ottawa, ON: Canada School of Public Service.
- Balsiger, J., & Prys, M. (2014). Regional agreements in international environmental politics. *International Environmental Agreements*.
- Barrett, T. (2007a, January 9). Secret Energy Plan: Will Campbell Top Schwarzenegger. *The Tyee*. <http://thetyee.ca/News/2007/01/09/EnergyPlan/>
- Barrett, T. (2007b, March 20). Campbell's Green-Speak Double Talk. *The Tyee*. <http://thetyee.ca/News/2007/03/20/GreenSpeak/>
- B.C., Manitoba could see new climate change rules this fall. (2007, October 23). *Canadian Press*. Retrieved from <http://www.cbc.ca/news/canada/british-columbia/b-c-manitoba-could-see-new-climate-change-rules-this-fall-1.671139>

- B.C.'s green plan endorsed by top climate scientist. (2007, February, 15). *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/british-columbia/b-c-s-green-plan-endorsed-by-top-climate-scientist-1.645981>
- B.C. to put GHG Reduction Targets into Law. (2007, November 17). *The Canadian Press*. Retrieved from <http://www.ctvnews.ca/b-c-to-put-ghg-reduction-targets-into-law-1.264424>
- B.C.'s premier finds environmental soul mate in Schwarzenegger. (2007, May, 26). *Canwest News Service*. Retrieved from <http://www.canada.com/nationalpost/news/story.html?id=b84823c7-ece5-4d07-aeae-89171799ebc8&k=66389>
- Belanger, A. (2011). Canadian federalism in the context of combating climate change. *Constitutional Forum*, 20(1), 21-31.
- Bennett, C. J. (1991a). How states utilize foreign evidence. *Journal of Public Policy*, 11(1), 31-54.
- Bennett, C. J. (1991b). What is policy convergence and what causes it? *British Journal of Political Science*, 21(2), 215-233.
- Bennett, C.J. (1997). Understanding ripple effects: The cross-national adoption of policy instruments for bureaucratic accountability. *Governance: An International Journal of Policy and Administration*, 10(3), 213-233.
- Bernstein, S. (2002). International institutions and the framing of domestic policies: The Kyoto Protocol and Canada's response to climate change. *Policy Sciences*, 35(2), 203-236.
- Bernstein, S. F., Brune, J., Duff, D., & Green, A. (Eds.). (2008). *A globally integrated climate policy for Canada*. Toronto: University of Toronto Press.
- Blatter, J., & Haverland, M. (2014). Case studies and (causal-) process tracing. In Engeli, I. & Allison C.R. (Eds.), *Comparative policy studies: Conceptual and methodological challenges*. New York: Palgrave MacMillan.
- Boyatzis, R.E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage Publications.
- Bramley, M. (2002). An assessment of Alberta's climate change plan. *Pembina Institute*. Retrieved from http://www.pembina.org/reports/plan_critique020906.pdf
- Brennan, R. (2014, July 9). Ontario warned it will miss 2020 emissions targets. *Toronto Star*. http://www.thestar.com/news/queenspark/2014/07/09/ontario_warned_it_will_miss_2020_greenhouse_gas_emissions_target.html

- Bressers, H. Th. A., & O'Toole Jr, L.J. (2005). Instrument selection and implementation in a networked context. In P. Eliadis, M.M. Hill, & M. Howlett (Eds.), *Designing governments: From instruments to governance* (pp. 132-13). Montreal-Kingston: McGill-Queens University Press.
- British Columbia Government. (n.d.). *Intergovernmental relations on climate action*. Retrieved from <http://www2.gov.bc.ca/gov/content/environment/climate-change/policy-legislation-programs/partnerships-outside-bc>
- British Columbia Ministry of Water, Land and Air Protection. (2004). *Weather, Climate and the Future: B.C.'s Plan*. Victoria, BC.
- British Columbia Government. (2007). Backgrounder: *BC-Manitoba M.O.U.* Retrieved from http://www2.news.gov.bc.ca/news_releases_2005-2009/2007OTP0163-001351-Attachment1.pdf
- Broadhead, L. (2001). Canada as a rogue state: Its shameful performance on climate change. *International Journal*, 56, 461-480.
- Burnham, P., Gilland, K., Grant, W. & Layton-Henry, Z. (Eds). (2004). *Research Methods in Politics*. Basingstoke: Palgrave Macmillan.
- Burtraw, D. & Shobe, B. (2009). *State and local climate policy under a national emissions floor*. (Discussion Paper 09-54). Resources for the Future. Washington, D.C.
- California Act Team. (n.d.). *Climate action team reports*. Retrieved from http://www.climatechange.ca.gov/climate_action_team/reports/index.html
- Canada's Ecofiscal Commission. (2015). *The way forward: A practical approach to reducing Canada's greenhouse gas emissions*. Retrieved from <http://ecofiscal.ca/reports/wayforward/>
- Canadian Minister Raitt letter to Governor Schwarzenegger on LCFS. (2009). *Climate Action Network*. Retrieved from <http://climateactionnetwork.ca/2009/04/21/09-04-21-canadian-minister-raitt-letter-to-governor-schwarzenegger-on-lcfs-april-21-2009/>
- Carley, S. (2011). The era of state energy policy innovation: A review of policy instruments. *Review of Policy Research*, 28, 265–294.
- Carley, S. (2012). A clean energy standard: Experience from the states. *Review of Policy Research*, 29, 301–307.
- Carley, S., & Miller, C.J. (2012). Regulatory stringency and policy drivers: A reassessment of renewable portfolio standards. *Policy Studies Journal*, 40(4), 730-756.

- Chalifour, N.J. (2009). The constitutional authority to levy carbon taxes. In T. J. Courchene, & J. R. Allan, (Eds.). *Canada: The state of the federation 2009: Carbon pricing and environmental federalism*. (pp. 177-196). Kingston-Montreal: McGill-Queen's University Press.
- Charest: feds should consult provinces on climate change. (2009, June 26). *The Canadian Press*. Retrieved from <http://www.ctvnews.ca/charest-feds-should-consult-provinces-on-climate-change-1.411408>
- Charest slams Canada's climate policy in Cancun. (2010, December 7). *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/montreal/charest-slams-canada-s-climate-policy-in-cancun-1.948454>
- Cheadle, B. (2015). Feds quietly canvass provinces for climate change measures ahead of Paris talks. *CBC News*. Retrieved from <http://www.cbc.ca/news/politics/feds-quietly-canvass-provinces-for-climate-change-measures-ahead-of-paris-talks-1.2979565>
- Conference Board of Canada. (2011). Greenhouse gas mitigation in Canada. Retrieved from: http://www.ico2n.com/wp-content/uploads/2010/07/Conference-Board-11-290_GreenhouseGas.pdf
- Council of the Federation Secretariat. (2007). *Climate change: Leading practices by provincial and territorial governments in Canada*. Ottawa, ON.
- Coyne, I.T. (1997). Sampling in qualitative research. Purposeful and theoretical sampling; merging or clear boundaries. *Journal of Advanced Nursing*, 26, 623-630.
- Craik, N., Studer, I. & VanNijnatten, D. (Eds.). (2013). *Climate change policy in North America: Designing integration in a regional system*. Toronto: University of Toronto Press.
- Critics find little to cheer in Manitoba's carbon tax. (2008, April 11). *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/manitoba/critics-find-little-to-cheer-in-manitoba-s-carbon-tax-1.749050>
- Crowley, K. (2013). Pricing carbon: The politics of climate policy in Australia. *WIREs Climate Change*, 4, 603–613.
- Cryderman, K. (2012, May 18). Climate strategy back on drawing board. *Calgary Herald*. Retrieved from <http://www2.canada.com/calgaryherald/news/story.html?id=76eeab2d-c5de-4563-8b9a-7b56bdfd6f19&p=1>
- Cryderman, K. & McCarthy, S. (2013, May 6). Keeping the faith in carbon capture and storage. *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/keeping-the-faith-in-carbon-capture-and-storage/article11742291/>

- De Oliveira, J.A.P. (2009). The implementation of climate change related policies at the subnational level: An analysis of three countries. *Habitat International*, 33(3), 253-259.
- De Souza, M. (2009, December 4). Canada won't be swayed by Copenhagen 'hype': Prentice. *Vancouver Sun*. Retrieved from <http://www.vancouver.sun.com/business/smallbusiness/Canada+swayed+Copenhagen+hype+Prentice/2304034/story.html>
- Dembicki, G. (2011, December 13). BC's cleaner fuel standard: Reality check. *The Tyee*. Retrieved from http://theyee.ca/News/2011/12/13/Fuel_Standard_Reality_Check/
- Doern, G.B., & Phidd, R.W. (1992). *Canadian public policy: Ideas, structures, processes*. (2nd Ed). Toronto: Nelson Canada.
- Dolowitz, D. P., & Marsh, D. (2000). Learning from abroad: The role of policy transfer in contemporary policy-making. *Governance: An International Journal of Policy, Administration, and Institutions*, 13(1), 5-24.
- Drapalski III, H.J. (2011). The viability of interstate collaboration in the absence of federal climate change legislation. *Duke Environmental Law and Policy Forum*, 21, 469-493.
- Doughman, P. (2007). California's climate change policy: Raising the bar. *Environmental Science and Policy for Sustainable Development*, 49(7), 34-43.
- Engel, K.H. (2005). Mitigating global climate change in the United States: A regional approach. *NYU Environmental Law Journal*, 14, 54-85.
- Engel, K. H. (2006). *State and local climate change initiatives: What is motivating state and local governments to address a global problem and what does this say about federalism and environmental law?* (No. Discussion Paper 06-36). Social Science Research Network.
- Engel, K.H. (2009). Wither subnational climate change initiatives in the wake of federal climate change legislation. *Publius: The Journal of Federalism*, 39(1), 432-454.
- Engel, K.H., & Orbach, B.Y. (2008). Micro-motives and state and local climate change initiatives. *Harvard Law and Policy Review* (2), 119-137.
- Engel, K. H., & Saleska, S. R. (2005). Subglobal regulations of the global commons: The case of climate change. *Ecology Law Quarterly*, 32, 183-233.
- Environment Canada. (2013). *Canada's emission trends*. Retrieved from http://www.ec.gc.ca/ges-ghg/985F05FB-4744-4269-8C1A-D443F8A86814/1001-Canada's%20Emissions%20Trends%202013_e.pdf

- Environment Canada. (2014). *National Inventory Report 1990–2012: Greenhouse Gas Sources and Sinks in Canada*. Retrieved from http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/8108.php
- Environmental Commissioner of Ontario. (2012). *A question of commitment: Annual greenhouse gas progress report 2012*. Retrieved from http://www.eco.on.ca/index.php/en_US/pubs/greenhouse-gas-reports/2012-greenhouse-gas
- Environmental Commissioner of Ontario. (2013). *Failing our future*. Retrieved from http://www.ecoissues.ca/index.php/Failing_our_Future
- Environmentalists upset by McGuinty's climate change. (2007, June 11). *Canadian Press*. Retrieved from <http://toronto.ctvnews.ca/environmentalists-upset-by-mcguinty-s-climate-plan-1.244557>
- Elau, H. (1962). Comparative political analysis: A methodological note. *Midwest Journal of Political Science*, 6, 397-407.
- Elgie, S. (2009). Carbon emissions trading and the constitution. In T. J. Courchene, & J. R. Allan, (Eds.). *Canada: The state of the federation 2009: Carbon pricing and environmental federalism*. (pp. 161-176). Kingston-Montreal: McGill-Queen's University Press.
- Elgie, S. & McClay, J. (2013). BC's carbon tax shift is working well after four years (Attention Ottawa). *Canadian Public Policy*, 39, S1-S10.
- Elo, S. & Kyngas, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107-115.
- Evans, M. (2009). Policy transfer in critical perspective. *Policy Studies*, 30(3), 243-268.
- Fickling, M. & Schott, J.J. (2000) *NAFTA and climate change*. Washington, DC: Peterson Institute for International Economics.
- Fischlein, M., & Smith, T. (2013). Revisiting renewable portfolio standard effectiveness: policy design and outcome specification matter. *Policy Sciences*, 46(3), 277-310.
- Funk, W. (2009). Constitutional implications of regional CO2 cap-and-trade programs: The Northeast Regional Greenhouse Gas Initiative as a case in point. *Journal of Environmental Law*, 27, 353-369.
- George, A.L. & Bennett, A. (2005). *Case studies and theory development in the social sciences*. Cambridge, MA: MIT Press.

- Gillespie, K. (2008, March 7). Climate change czar aims to paint province green. *Toronto Star*. Retrieved from http://www.thestar.com/news/canada/2008/03/07/climate_change_czar_aims_to_paint_province_green.html
- Gordon, D., & MacDonald, D. (2011). *Institutions and federal climate change governance: A comparison of the intergovernmental coordination in Australia and Canada*. Waterloo, ON: Canadian Political Science Association Annual Conference. University of Waterloo.
- Gulbrandsen, L. H., & Christensen, A. R. (2014). EU Legislation to Reduce Carbon Emissions from Cars: Intergovernmental or Supranational Policy Making? *Review of Policy Research*, 31, 503–528.
- Gupta, K. (2012). Comparative public policy: Using comparative method to advance our understanding of the policy process. *The Policy Studies Journal*, 40(S1), 11-26.
- Hall, P. A. (2004). Letter from the President. Beyond the Comparative Method, *Newsletter of the Organized Section in Comparative Politics of the American Political Science Association*, 15 (2), 1–4.
- Happaerts, S. (2012a). Are you talking to us? How subnational governments respond to global sustainable development governance. *Environmental Policy and Governance*, 22(2), 127-142.
- Happaerts, S. (2012b). Sustainable development in Quebec and Flanders: Institutionalizing symbolic politics? *Canadian Public Administration*, 55(4), 553-573.
- Happaerts, S., & Van den Brande, K. (2011). Sustainable development and transnational communication: Assessing the international influence of subnational policies. *Journal of Comparative Policy Analysis*, 13(5), 527-544.
- Hardin, G. (1968). The tragedy of the commons. *Science*, 168, 1243-1248.
- Harris, M., Beck, M., & Gerasimchuk, I. (2015). The end of coal: Ontario's coal phase-out. International Institute for Sustainable Development. Retrieved from <http://www.iisd.org/sites/default/files/publications/end-of-coal-ontario-coal-phase-out.pdf>
- Harrison, K. (1996). *Passing the buck federalism and Canadian environmental policy*. Vancouver, BC: UBC Press.
- Harrison, K. (Ed.). (2006). *Racing to the bottom? Provincial interdependence in the Canadian federation*. Vancouver, BC: UBC Press.
- Harrison, K. (2007). The road not taken: Climate change policy in Canada and the United States. *Global Environmental Politics*, 7(4), 92-117.

- Harrison, K. (2012a). A Tale of Two Taxes: The Fate of Environmental Tax Reform in Canada. *Review of Policy Research* 29, 383-407.
- Harrison, K. (2012b). Multilevel Governance and American Influence on Canadian Climate Policy: The California Effect vs. the Washington Effect. *Zeitschrift Fur Kanada-Studien* 32, 45-64.
- Harrison, K. (2013). Federalism and climate policy innovation: A critical reassessment. *Canadian Public Policy*, 39(S2), S95-S108.
- Harrison, K., & Peet, C. (2012). Historical legacies and policy reform: Diverse regional reactions to British Columbia's carbon tax. *BC Studies*, 173, 97-122.
- Harrison, K., & Sundstrom, L. M. (Eds.). (2010). *Global commons, domestic decisions : The comparative politics of climate change*. Cambridge, Mass: MIT Press.
- Heidenheimer, A., Hecl H., & Addams, C.T. (1990) *Comparative public policy: The politics of social choice in America, Europe and Japan*. (3rd Ed.). New York: St Martin's Press.
- Hill, S., & Leiss, W. (2002). *Alberta's "made in Washington" climate change action plan*. Retrieved from <http://leiss.ca/wp-content/uploads/2009/12/Albertas-Made-in-Washington-Climate-Change-Action-Plan.pdf>
- Hoberg, G. (1991). Sleeping with an elephant: The American influence on Canadian environmental regulation. *Journal of Public Policy*, 11(1), 107-132.
- Hoberg, G., & Phillips, J. (2011). Playing defence: Early responses to conflict expansion in the oil sands policy subsystem. *Canadian Journal of Political Science*, 44(3), 507-527.
- Hoekstra, G. (2013, October 3). B.C. loses ground as climate change leader. *Vancouver Sun*. Retrieved from <http://www.fonvca.org/agendas/oct2013/news-clips/B.C.%20loses%20ground%20as%20climate%20change%20leader.pdf>
- Hoffman, M. (2011). *Climate governance at the crossroads*. New York, NY: Oxford University Press.
- Hogg, P. W. (2008). *A question of parliamentary power: Criminal law and the control of greenhouse gas emissions*. (No. 114). Toronto, ON: C.D. Howe Institute.
- Holmes, M. (2012). *All over the map: A comparison of provincial climate change plans*. Vancouver, BC: David Suzuki Foundation.
- Hornsby, D.J., Sumerlee, A.J.S., & Woodside, K.B. (2007). NAFTA's shadow hangs over Kyoto's implementation. *Canadian Public Policy*, 33(3), 285-297.

- Houle, D. (2009). *Alberta Climate Change Policy in the Canada-US Context*. Paper presented at Canadian Political Science Association Conference, Toronto, ON.
- Houle, D. & MacDonald, D. (2012). Understanding the selection of policy instruments in Canadian climate-change policy. *Telescope*, 17(2), 183-208.
- Howlett, K. (2007, January 1). McGuinty plans to target green vote. *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/news/national/mcguinty-plans-to-target-green-vote/article676378/>
- Howlett, K. (2008, June 2). Ontario, Quebec go it alone on climate. *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/news/national/ontario-quebec-go-it-alone-on-climate/article673487/>
- Howlett, K., & Keenan, G. (2008, August 4). Compromise lets Ontario join climate-change initiative. *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/news/national/compromise-lets-ontario-join-climate-change-initiative/article4222691/>
- Howlett, M. (1994). The judicialization of Canadian environmental policy, 1980-1990: A test of the Canada-United States convergence thesis. *Canadian Journal of Political Science*, 27(1), 99-127.
- Howlett, M. (2000). Beyond legalism? Policy ideas, implementation styles and emulation-based convergence in Canadian and US environmental policy. *Journal of Public Policy*, 20(3), 305-329.
- Howlett, M. (2005). What is a policy instrument? Policy tools, policy mixes, and policy-implementation styles. In P. Eliadis, M.M. Hill, & M. Howlett (Eds.), *Designing governments: From instruments to governance* (pp. 31-50). Montreal-Kingston: McGill-Queens University Press.
- Howlett, M. (2011). *Designing public policies: Principles and instruments*. New York: Routledge.
- Hsu, S. L. & Elliot, R. (2009). Regulating Greenhouse Gases in Canada: Constitutional and Policy Dimension. *McGill Law Journal*, 54, 46.
- Huffman, R. K., & Weisgall, J. M. (2008). Climate change and the states: Constitutional issues arising from state climate protection leadership. *Sustainable Development Law and Policy*, 8(2), 6-13.
- Hunter, J. (2012, May 13). Natural-gas plans could alter B.C.'s climate-change goals. *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/news/british-columbia/natural-gas-plans-could-alter-bcs-climate-change-goals/article4170462/>

- Ibbitson, J., & Seguin, R. (2010). As Charest heats up battle over climate change, Tories stand to lose in Quebec. *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/news/national/as-charest-heats-up-battle-over-climate-change-tories-stand-to-lose-in-quebec/article1364736/>
- Ikenberry, G. (1990). The international spread of privatization policies: inducements, learning and policy “bandwagoning”. In E. Suleiman J. Waterbury. (Eds.), *The Political Economy of Public Sector Reform and Privatization*. Westview Oxford.
- International Institute for Sustainable Development (2011). Mind the gap: The state-of-play in Canadian greenhouse gas mitigation. Winnipeg, MB.
- International Panel on Climate Change. (n.d.). *Fifth Assessment Report*. Retrieved from <http://www.ipcc.ch/>
- Jaccard, M. (2012). The political acceptability of carbon taxes: Lesson from British Columbia. In Milne J., Anderson. M, & Skou, M. (Eds.). *Handbook of Research on Environmental Taxation*. (pp. 175-191). Northampton: Edward Elgar Publishing.
- James, O. & Lodge, M. (2003). The limitation of ‘policy transfer and ‘lesson drawing’ for public policy research. *Political Studies Review*, 1, 179-193.
- Jones, S. (2010). The national renewable energy target: An example of post-machiavellian policy-making? *Australian Journal of Public Administration*, 69, 165–177.
- Jordan, A., van Asselt, H., Berkhout, F., Huitema, D., & Rayner, T. (2012). Understanding the paradoxes of multilevel governing: Climate change policy in the European Union. *Global Environmental Politics*, 12(2), 43-66.
- Kazazis, A. (2012) The WCI: The fate of an experiment in subnational cross border environmental collaboration. *Brooklyn Journal of International Law*, 37(3), 1177.
- Keddie, J.N., & Smith, R.F.I. (2009). Leading from below: How sub-national governments influence policy agendas. *Australian Journal of Public Administration*, 68, 67–82.
- Keeler, A. (2007). State greenhouse gas reduction policies: a move in the right direction? *Policy Sciences*, 40(4), 353-365.
- Kellow, A. (2012). Multi-level and multi-arena governance: The limits of integration and the possibilities of forum shopping. *International Environmental Agreements*, 12(4), 327-342.

- Kern, K. (2007). *Climate change policy in the European Union and the United States: Do sub-federal initiatives matter?* Paper presented at the 2007 Annual Meeting of the American Political Science Association, Chicago (IL).
- Kleiss, K. (2010, September 17). Stelmach will take U.S. senators on tour to 'refute myths'. *Edmonton Journal*. Retrieved from <http://www2.canada.com/edmontonjournal/news/story.html?id=ade37e38-ee0f-4e1b-8831-f26b4f76db4f>
- Klinsky, S. (2012). Bottom-up policy lessons emerging from the Western Climate Initiative's development challenges. *Climate Policy*, 13(2), 143-169.
- Koehn, P.H. (2008). Underneath Kyoto: Emerging subnational government initiatives and incipient issue-bundling opportunities in China and the United States *Global Environmental Politics*, 8(1), 53-77.
- Kukuchka, C.J. (2005). From Kyoto to the WTO: Evaluating the constitutional legitimacy of the provinces in Canadian foreign trade and environmental policy, *Canadian Journal of Political Science*, 38(1), 129-152.
- Lachapelle, E., Borick, C. P., & Rabe, B. G. (2012). Public attitudes towards climate science and climate policy in federal systems: Canada and the United States compared. *Review of Policy Research*, 29(3), 334-357.
- Lasswell, H.D. (1951). The Policy Orientation', in D. Lerner and H.D. Lasswell, (Eds.). *The Policy Sciences: Recent Developments in Scope and Method*. Stanford: Stanford University Press, 3-15.
- Lawrence, J. (2009). The Western Climate Initiative: Cross-border collaboration and constitutional structure in the United States and Canada, *Southern California Law Review*, 82, 1225-1288.
- Lazarus, R.J. (2009). Super wicked problems and climate change: Restraining the present to liberate the future. *Cornell Law Review*, 94, 1153-1234.
- Lehmann, E. (2010, March 1). Alberta works quietly to improve image of oil sands. *New York Times*. Retrieved from <http://www.nytimes.com/cwire/2010/03/01/01climatewire-alberta-works-quietly-to-improve-image-of-oi-75823.html>
- Levi-Faur, D. (2006). Varieties of regulatory capitalism: Getting the most of the comparative method, *Governance*, 19(3), 367-382.

- Leyne, L. (2008, July 2). NDP bets heavily on carbon tax anger. *Victoria Times Colonist*. Retrieved from <http://www.canada.com/story.html?id=289c1758-08e8-40b1-a7e1-dd2207e59d78>
- Lifitin, K. T. (2000). Advocacy coalitions along the domestic-foreign frontier: Globalization and Canadian climate change policy. *Policy Studies Journal*, 28(1), 236-252.
- Lindquist, E. (2014). Horizontal management in Canada ten years later. *Optimum Online*, 42(3), 26.
- Lindquist, E., Vincent, S., & Wanna, J. (2011). *Delivering policy reform: Anchoring significant reforms in turbulent times*. Canberra, AU:ANU Press.
- Lutz, J.M. (1989). Emulation and policy adoptions in the Canadian provinces. *Canadian Journal of Political Science*, 22(1), 147-154.
- MacDonald, D. (2009). The failure of Canadian climate change policy: veto power, absent leadership and institutional weakness. In Debora L. VanNijnatten and Robert Boardman (Eds.), *Canadian Environmental Policy and Politics: Prospects for Leadership and Innovation*. Don Mills: Oxford University Press.
- MacDonald, D. (2011). Harper energy and climate change policy: Failing to address the key challenges. In G. B. Doern, & C. Stoney (Eds.), *How Ottawa spends 2011-2012: Trimming fat or slicing pork?* (pp. 127-143). Montreal-Kingston: McGill-Queen's University Press.
- MacDonald, D., & Smith, H. A. (1999). Promises made, promises broken: Questioning Canada's commitments to climate change. *International Journal*, 55(1), 107-124.
- MacDonald, D., & VanNijnatten, D. (2010). Canadian climate policy and the North American influence. In G. E. Hale, & M. Gattinger, (Eds.). *Borders and bridges : Canada's policy relations in North America*. (pp. 177-193). Don Mills, ON: Oxford University Press.
- MacDonald, D., VanNijnatten, D., & Bjorn, A. (2005). Implementing Kyoto: When spending is not enough. In G.B. Doern (Ed.), *How Ottawa spends 2004-2005: Mandate change in the Paul Martin era*. (pp. 175-197). Montreal-Kingston: McGill-Queen's University Press.
- MacGregor, J. (2015, January 22). Justin Trudeau says carbon pricing should be left to provinces. *CBC News*. Retrieved from <http://www.cbc.ca/news/politics/justin-trudeau-says-carbon-pricing-should-be-left-to-provinces-1.2927889>
- Manitoba Conservation. (2002). *Kyoto and beyond: A plan of action to meet and exceed Manitoba's Kyoto targets*. Government of Manitoba: Winnipeg, MB.

- Manitoba Conservation. (2011). *Public consultation on a proposed cap-and-trade system for Manitoba*. Retrieved from https://www.gov.mb.ca/conservation/climate/pdf/cap_and_trade_consultation_final_rpt.pdf
- Manitoba Government. (2009). *First biodiesel mandate in Canada now in effect in Manitoba*. Retrieved from <http://news.gov.mb.ca/news/index.html?item=7122>
- Manitoba Government. (2012). *Manitoba's report on climate change for 2010*. Retrieved from https://www.gov.mb.ca/conservation/climate/pdf/2010_climate_change_web.pdf
- Manitoba Legislative Assembly. (2004). Speech from the Throne. Retrieved from http://www.gov.mb.ca/legislature/hansard/38th_3rd/vol_01/h01.html#st
- Massey, A. (2009). Policy mimesis in the context of global governance. *Policy Studies*, 30, 383-395.
- Matisoff, D.C. (2008). The adoption of state climate change policies and renewable portfolio standards: Regional diffusion internal determinants? *Review of Policy Research*, 25, 527-546.
- Maurino, R. (2011, September 21). Ontario election: McGuinty says he'll support cap-and-trade if it's the 'right' plan. *The Canadian Press*. Retrieved from http://www.huffingtonpost.ca/2011/09/21/mcguinty-says-hell-support-cap-and-trade-ontario-election_n_973862.html
- Mazmanian, D., Jurewitz, J., & Nelson, H. (2008). California's climate change policy: The case of a subnational state actor tackling a global challenge; *Journal of Environment and Development*, 17(4), 401-423.
- McCann E. & Ward, K. (2012). Policy assemblages, mobilities and mutations: Towards a multidisciplinary conversation, *Political Studies Review*, 10(3), 325-332.
- McCarthy, S. (2009, April 22). Oil Sands Braces for American Green Fuel Regulation". *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/report-on-business/oil-sands-braces-for-american-green-fuel-regulation/article1196715/>
- McCarthy, S. (2011, April 12). B.C., Ontario hinder California green plan. *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/news/national/bc-ontario-hinder-california-green-plan/article576711/>
- McCarthy, S., & Vanderklippe, N. (2013, April 3). Alberta's bold plan to cut emissions stuns Ottawa and oil industry. *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/report-on-business/industry-news/energy-and->

resources/albertas-bold-plan-to-cut-emissions-stuns-ottawa-and-oil-industry/article10762621/

- Ministry of Environment. (2011). *Climate action: Adapting to change, protecting our future*. Ontario Government. Toronto, ON: Queen's Printer for Ontario.
- Ministry of Sustainable Development, Environment and Parks (2008). *Quebec and climate change: A challenge for the future*. Quebec Government (ISBN: 978-2-550-53862-2). Quebec City, Quebec.
- Monast, J. (2008). Integrating state, regional, and federal greenhouse gas markets: Options and tradeoffs. *Duke Environmental Law and Policy Forum*, 18, 329-346.
- Nadeau, R. (2009). Quebec and Ontario take aim at Ottawa on climate. *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/news/world/quebec-and-ontario-take-aim-at-ottawa-on-climate-change/article4295497/>
- National Energy Board (n.d.). *Estimated crude oil exports by type of destination*. Retrieved from <http://www.neb-one.gc.ca/nrg/sttstc/crdlndprtlmprdct/stt/stmtdcndncrdlxprttdstn-eng.html>
- National Roundtable on the Environment and the Economy. (2012). *Reality check: The state of climate progress in Canada*. Retrieved from <http://nrtee-trnee.ca/reality-check-the-state-of-climate-progress-in-canada>
- Newman, J. & Howlett, M. (2008). Quebec: Canada's champion in the fight against climate change. *Policy Options*, 29(7).
- No plans for Manitoba carbon tax: minister. (2008, March 5). *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/manitoba/no-plans-for-manitoba-carbon-tax-minister-1.739253>
- Office of the Auditor General of Canada. (2012). *Report of the Commissioner of the Environment and Sustainable Development to the House of Commons*. Retrieved from http://www.oag-bvg.gc.ca/internet/docs/parl_cesd_201205_00_e.pdf
- Office of Auditor General of Manitoba. (2010). *Report to the Legislative Assembly: Performance reports*. Retrieved from http://www.oag.mb.ca/wp-content/uploads/2011/06/rtl_performance_audits_2010.pdf
- Ontario Government. (2007a). McGuinty and Schwarzenegger team up to curb climate change, boost stem cell research. Retrieved from <http://news.ontario.ca/opo/en/2007/05/mcguinty-and-schwarzenegger-team-up-to-curb-climate-change-boost-stem-cell-research.html>

- Ontario Government. (2007b). *McGuinty government sets ambitious, realistic greenhouse gas targets*. Retrieved from <http://news.ontario.ca/opo/en/2007/06/mcguinty-government-sets-ambitious-realistic-greenhouse-gas-targets.html>
- Ontario Government. (2009). *Ontario legislature passes green energy act*. Retrieved from <http://news.ontario.ca/mei/en/2009/05/ontario-legislature-passes-green-energy-act.html>
- Ontario Government. (2015). *Cap-and-trade system to limit greenhouse gas pollution in Ontario*. Retrieved from <http://news.ontario.ca/opo/en/2015/04/cap-and-trade-system-to-limit-greenhouse-gas-pollution-in-ontario.html>
- Opposition attacks Alberta climate-change plan. (2008, January 24). *CBC News*. Retrieved from <http://www.cbc.ca/m/touch/canada/edmonton/story/1.727234>
- Ostrom, E. (2009). *A polycentric approach for coping with climate change*. (No. 5095). Washington, D.C.: The World Bank, Development and Economics Research Group.
- Pacific Coast Collaborative. (2007). *Memorandum of understanding between the Province of British Columbia and the State of California on pacific coast collaboration to protect our shared climate and ocean*. Retrieved from <http://www.pacificcoastcollaborative.org/Documents/cabcpcc.pdf>
- Pacific Coast Collaborative. (2010). *Memorandum of understanding between the Province of British Columbia and the State of California on the development of greenhouse gas vehicle emission standards*. Retrieved from http://www.pacificcoastcollaborative.org/Documents/mou_BC-CARB_VehicleEmissions.pdf.
- Paehlke, R. C. (2008). *Some like it cold: The politics of climate change in Canada*. Toronto, ON: Between the Lines.
- Panetta, A. (2007, December 10). Canada assailed from all sides at climate talks. *Toronto Star*. Retrieved from http://www.thestar.com/news/2007/12/10/canada_assailed_from_all_sides_at_climate_talks.html
- Parliament of Canada (n.d.). *Electoral results by party*. Retrieved from <http://www.parl.gc.ca/Parlinfo/compilations/ElectionsAndRidings/ResultsParty.aspx>
- Patashnik, E. (2008). *Reforms at risk: What happens after major policy changes are enacted*. Princeton, NJ: Princeton University Press.
- Patton, M.Q. (2002) *Qualitative research methods in evaluation* (2nd ed). Thousand Oaks, CA: Sage Publications.

- Pembina Institute (2007). *Federal greenhouse gas regulations not enough to “turn the corner”*. Retrieved from <http://www.pembina.org/media-release/1465>
- Pembina Institute. (2009). Highlights of provincial greenhouse gas reduction plans. Retrieved from <https://www.pembina.org/reports/highlights-of-provincial-greenhouse-gas-reduction-plans.pdf>
- Poehl, D.H. (1976). The diffusion of legislation among the Canadian provinces: A statistical analysis. *Canadian Journal of Political Science*, 9(4), 605-626.
- Premier’s climate guru leaves \$321,000 post. (2010, February 12). *Toronto Star*. Retrieved from http://www.thestar.com/news/ontario/2010/02/12/premiers_climate_guru_leaves_321000_post.html
- Premiers squabble over climate change. (2007, August 10). *Canwest News Service*. Retrieved from <http://www.canada.com/story.html?id=7565c648-e56c-4ba1-9628-d31d13cad0ea>
- Provincial and territorial statement on climate change policy. (2002). *Canadian Intergovernmental Conference Secretariat*. Retrieved from <http://www.scics.gc.ca/english/conferences.asp?a=viewdocument&id=1225>
- Prystupa, M. (2011, December 6). Manitoba confirms Kyoto pledge is dead. *CBC News*. Retrieved from: <http://www.cbc.ca/news/canada/manitoba/manitoba-confirms-kyoto-pledge-is-dead-1.1067180>
- Przeworski, A., & Teune, H. (1970). *The logic of comparative social inquiry*. New York: John Wiley.
- Public wants action on climate issue: premiers (2008, August 7). *Canadian Press*. Retrieved from <http://www.ctvnews.ca/public-wants-action-on-climate-issue-premiers-1.251609>
- Quebec Government. (n.d.). *The Quebec cap-and-trade system and the WCI regional market: A historical overview*. Retrieved from <http://www.mddelcc.gouv.qc.ca/changements/carbone/documents-spede/historical-overview.pdf>
- Quebec Government. (2002). *Quebec’s position on the implementation of the Kyoto protocol*. Retrieved from www.mddelcc.gouv.qc.ca/communiqués_en/c20021024-kyoto.htm+&cd=3&hl=en&ct=clnk&gl=ca
- Quebec Government. (2009a). *GHG: Kudos for Quebec’s reduction target*. Retrieved from <http://www.international.gouv.qc.ca/en/new-york/actualites/7230?pReturnUrl=%2Fen%2Fnew-york%2Factualites%3Frp%3D10405%26noLang%3D2%26year%3D-1%26sec%3D-1%26idRegr%3D-1%26page%3D37>

- Quebec Government. (2009b). *With a target reduction of 20% by 2020, Quebec remains a leader in the fight against climate change*. Retrieved from <http://www.premiere-ministre.gouv.qc.ca/actualites/communiqués/details-en.asp?mois=11&annee=2009&idCommunique=510>
- Quebec Government. (2010). *2006-2012 climate change action plan: Fourth annual Report*. Retrieved from <http://www.bibliotheque.assnat.qc.ca/01/PER/1066249/2010.pdf>
- Quebec should end Kyoto squabble. (2005, December 1). *Montreal Gazette*. Retrieved from <http://www.canada.com/story.html?id=67deb13f-dfbc-4d90-9737-5248c9d6f807>
- Quebec Sustainable Development Commissioner. (2012). *Report of the auditor general of Quebec to the national assembly: Report of the sustainable development commissioner- Highlights*. Retrieved from http://www.vgq.gouv.qc.ca/en/en_publications/en_rapport-annuel/en_fichiers/en_Rapport2011-2012-CDD.pdf
- Rabe, B. G. (2004). *Statehouse and greenhouse: The emerging politics of American climate change policy*. Washington, D.C.: Brookings Institution Press.
- Rabe, B.G. (2005). State competition as source driving climate change mitigation. *New York University Environmental Law Journal*, 14.
- Rabe, B. G. (2007). Beyond Kyoto: Climate change policy in multilevel governance systems. *Governance: An International Journal of Policy, Administration, and Institutions*, 20(3), 423-444.
- Rabe, B. G. (2008). States on steroids: The intergovernmental odyssey of American climate policy. *Review of Policy Research*, 25(2), 105-128.
- Rabe, B. G. (2009). Second-generation climate policies in the states: Proliferation, diffusion, and regionalization. In H. Selin, & S. D. Vandever (Eds.), *Changing climates in North American politics: Institutions, policymaking, and multilevel governance* (pp. 67-85). Cambridge, MA: MIT Press.
- Rabe, B.G. (in press). The durability of carbon cap-and-trade policy. *Governance: An International Journal of Policy, Administration, and Institutions*.
- Rabe, B.G., & Borick, C.P. (2012). Carbon taxation and policy labeling: Experience from American states and Canadian provinces, *Review of Policy Research*, 29(3), 358-382.
- Radaelli, C.M. (2005). Diffusion without convergence: How political context shapes the adoption of regulatory impact assessment. *Journal of European Public Policy*, 12(5), 924-943.
- Rayner, J. (2010). How to eat an elephant: A bottom-up approach to climate policy. *Climate Policy*, 10(6), 615-621.

- Read, A. (2014). Background: Climate change policy in Alberta. *Pembina Institute*. Retrieved from <http://www.pembina.org/reports/sger-climate-policy-background.pdf>
- Recall legislature to make climate change action the law. (2007, June 18). Newswire. Retrieved from <http://www.newswire.ca/en/story/158989/recall-legislature-to-make-climate-change-action-the-law>
- Rhodes, E., & Jaccard, M. (2013). A tale of two climate policies: Political economy of British Columbia's carbon tax and clean electricity standard. *Canadian Public Policy*, 39(S August), S37-S51.
- Rhodes, R. A. W. (1995). The changing face of British public administration. *Politics*, 15, 117–126.
- Rihoux, B., & Grimm, H. (2006). Introduction. Beyond the qualitative-quantitative divide: Innovative comparative methods for policy analysis. (pp. 1-9). In B. Rihoux, & H. Grimm (Eds), *Innovative Comparative Methods for Policy Analysis*. New York: Springer.
- Robertson, D.B. (1991). Political conflict and lesson-drawing. *Journal of Public Policy*, 11(1), 55-78.
- Roland-Host, D. (2006). *Economic Growth and Greenhouse Gas Mitigation in California*. University of California at Berkeley.
- Rollings-Magnusson, S. & Magnusson, R.C. (2000). The Kyoto protocol: Implications of a flawed but important environmental policy. *Canadian Public Policy*, 26(3), 347-359.
- Rose, R. (1993). *Lesson-drawing in public policy: A guide to learning across time and space*. Chatham, NJ: Chatham House.
- Rose, R. (2005). *Learning from comparative public policy: A practical guide*. New York: Routledge.
- Rowlands, I. (2007). The development of renewable electricity policy in the province of Ontario: The influence of ideas and timing. *Review of Policy Research*, 24(3), 185-207.
- Ruff, N.J. (2005). The West Annex: Executive structure and administrative style in British Columbia. In *Executive Styles in Canada: Cabinet Structures and Leadership Practices in Canadian Government*. L. Bernier, K. Brownsey and M. Howlett (Eds.). Toronto: University of Toronto Press.
- Schneider, A. & Ingram, H. (1988). Systematically pinching ideas: A comparative approach to policy design. *Journal of Public Policy*, 8(1), 61-80.

- Schreurs, M.A. (2008). From bottom up: Local and subnational climate change politics. *The Journal of Environmental Development*, 17, 343-355.
- Schreurs, M.A., & Tiberghien, Y. (2007). Multi-level reinforcement: Explaining European Union leadership in climate change mitigation. *Global Environmental Politics*, 7, 19-46.
- Seguin, R. (2010, June 15). McGuinty says cap-and-trade is coming to North America. *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/news/national/mcguinty-says-cap-and-trade-is-coming-to-north-america/article1373180/>
- Selin, H., & Vandever, S. D. (2005). Canadian-U.S. environmental cooperation: Climate change networks and regional action. *The American Review of Canadian Studies*, 35(2), 353-378.
- Selin, H., & Vandever, S. D. (2009). Changing climates and institution building across the continent. In H. Selin, & S. D. Vandever (Eds.), *Changing climates in North American politics: Institutions, policymaking, and multilevel governance* (pp. 3-22). Cambridge, MA: MIT Press.
- Selin, H., & Vandever, S. D. (2011). Climate change regionalism in North America. *Review of Policy Research*, 28(3), 295-304.
- Simpson, J., Jaccard, M., & Rivers, N. (2007). *Hot air: Meeting Canada's climate change challenge*. Toronto, ON: McClelland & Stewart.
- Smelser, N.J. (1967). Notes on the methodology of comparative analysis of economic activity. *Social Science Information*, 6(7), 7-21.
- Smiley, D.V. (1980). *Canada in question: Federalism in the eighties*. Toronto: McGraw-Hill Ryerson Limited.
- Smith, H. (1998). *Canadian federalism and international environmental policy making: The case of climate change*. Kingston, ON: Institute of Intergovernmental Relations, Queen's University.
- Smith, H. (2008). Political parties and Canadian climate change policy. *International Journal*, 64(1), 47-66.
- Smith, H. (2009). Unwilling internationalism or strategic internationalism? *Canadian Foreign Policy*, 15(2), 57.
- Societe de transport de Montreal. (2012). *Quebec's first public transit policy: Mission accomplished for Societe de transport de Montreal*. Retrieved from <http://www.stm.info/en/press/press-releases/2012/quebec-s-first-public-transit-policy---mission-accomplished-for-societe-de-transport-de-montreal>

- Solutions from Canadian Scholars. (2015). *Acting on climate change*. Retrieved from http://www.sustainablecanadialogues.ca/files/PDF_DOCS/EN_15mars_17H_lowres.pdf
- Stelmach defends oilsands' environmental record. (2008, January 11). *CBC News*. Retrieved from <http://www.cbc.ca/m/touch/canada/edmonton/story/1.731683>
- Stephen Harper touts merits of Alberta's carbon pricing system. (2014, December 8). *CBC News*. Retrieved from <http://www.cbc.ca/news/politics/stephen-harper-touts-merits-of-alberta-s-carbon-pricing-system-1.2876653>
- Stewart, R. (2008). States and cities as actors in global climate regulation: Unitary vs. plural architectures. *Arizona Law Review*, 50, 681-707.
- Stezer, J. (2014). How subnational governments are rescaling environmental governance: The case of the Brazilian state of Sao Paulo. *Journal of Environmental Policy and Planning*.
- Stoett, P. J. (2009). Looking for leadership: Canada and climate change policy. In H. Selin, & S. D. Vandeveer (Eds.), *Changing climates in North American politics: Institutions, policymaking, and multilevel governance* (pp. 47-64). Cambridge, MA: MIT Press.
- Stone, D. (2004). Transfer agents and global networks in the 'Transnationalisation of policy'. *Journal of European Public Policy*, 11(3), 545-566.
- Stone, D. (2012). Transfer and translation of policy. *Policy Studies*, 33(6), 483-499.
- Studer, I. (2013). Supply and demand for a North American climate regime. In Craik, N., Studer, I. & VanNijnatten, D. (Eds.). *Climate change policy in North America: Designing integration in a regional system*. (pp. 35-70). Toronto: University of Toronto Press.
- Talaga, T. (2010, August 17). Municipalities should have veto over energy projects: Tim Hudak. *Toronto Star*. Retrieved from http://www.thestar.com/news/ontario/2010/08/17/municipalities_should_have_veto_over_energy_projects_tim_hudak.html
- Tansey, O. (2007). Process tracing and elite interviewing: A case for non-probability sampling. *PS: Politics Science and Politics*, 40(4), 765-772.
- Thomas, P. (2008). Leading from the middle: Manitoba's role in the intergovernmental arena. *Canadian Political Science Review*, 2(3), 29-50.
- Toulin, A., & Benzie, R. (2002, April 6). Harris ups anti-Kyoto pressure: B.C.'s Campbell joins chorus against climate-control pact. *National Post*. Retrieved from <http://business.highbeam.com/435424/article-1G1-85878696/harris-ups-antikyoto-pressure-bc-campbell-joins-chorus>

- Trebilcock, M.J., Hartle, D.G., Prichard, J.R.S., & Dewees, D.N. (1982). *The choice of governing instrument*. Ottawa: Canadian Government Publication Centre.
- Turenne, P. (2008, April 12). Doer's NDP takes lead with climate change bill. *Winnipeg Sun*. Retrieved from <http://cnews.canoe.ca/CNEWS/Science/2008/04/12/5268186-sun.html>
- United Nations Framework Convention on Climate Change (n.d.). *International emissions trading*. Retrieved from http://unfccc.int/kyoto_protocol/mechanisms/emissions_trading/items/2731.php
- Urpelainen, J. (2009). Explaining the Schwarzenegger phenomenon: Local frontrunners in climate policy. *Global Environmental Politics*, 9(3), 82-105.
- Urpelainen, J. (2013). A model of dynamic climate governance: Dream big, win small. *International Environmental Agreements*, 13(2), 107-125.
- Valenzuela, J.M. (2014). Climate change agenda at subnational level in Mexico: Policy coordination or policy competition? *Environmental Policy and Governance*, 24(3), 188-203.
- Van der Heijden, J. (2014). Selecting cases and inferential types in comparative public policy research (p. 35-56) in Engeli, I. & Rothmayr, C. (Eds.). *Comparative Policy Studies: Conceptual and Methodological Challenges*. London: Palgrave.
- van Kooten, G.C. (2003). Smoke and Mirrors: The Kyoto Protocol and Beyond. *Canadian Public Policy* 29, 397-415.
- VanNijnatten, D. (2003). Analyzing the Canada-US environmental relationship: A multifaceted approach. *American Review of Canadian Studies*, 33(1), 93-120
- VanNijnatten, D. (2004). Canadian-American environmental relations: Interoperability and politics. *American Review of Canadian Studies*, 34(4), 649-664.
- VanNijnatten, D. (2008) Environmental policy in Canada and the US: Climate change and continuing distinctiveness. In D. M. Thomas and B. Boyle Torrey (Eds) *Canada and the United States: Differences that count*. (3th Ed.). pp. 340-360. Peterborough: Broadview Press.
- VanNijnatten, D., & Craik, N. (2013). Designing intergration: The system of climate governance in North America. In Craik, N., Studer, I. & VanNijnatten, D. (Eds.). *Climate change policy in North America: Designing integration in a regional system*. (pp.5-35). Toronto: University of Toronto Press.
- VanNijnatten, D., & MacDonald, D. (2003). Reconciling energy and climate change policies: How Ottawa blends. In G. B. Doern (Ed.), *How Ottawa spends, 2002-2003: Regime change and policy shift* (pp. 72-88). Don Mills, ON: Oxford University Press.

- Vig, N.J., & Kraft, M.E. (2009). *Environmental policy: New directions for the twenty-first century*. Washington, DC: CQ Press.
- Vogel, D. (2005). *Trading up: Consumer and environmental regulation in a global economy*. Cambridge, MA: Harvard University Press.
- Weiner, J.B., & Koontz, T.M. (2010). Shifting winds explaining variation in state policies to promote small scale wind energy. *Policy Studies Journal*, 38, 629-651.
- Welch, M. (2013, June 21). Emissions down, goal far away. *Winnipeg Free Press*. Retrieved from <http://www.winnipegfreepress.com/local/emissions-down-goal-far-away-212448751.html>
- Western Climate Initiative. (2010a). Final complementary policies white paper. Retrieved from <http://www.westernclimateinitiative.org/document-archives/Complementary-Policies-Committee-Documents/Final-Complementary-Policies-White-Paper/>
- Western Climate Initiative. (2010b). Updated economic analysis of the WCI regional cap-and-trade program. Retrieved from <http://www.westernclimateinitiative.org/document-archives/Economic-Modeling-Team-Documents/2010-Economic-Analysis/Updated-Economic-Analysis-of-the-WCI-Regional-Cap-and-Trade-Program/>
- Wettestad, J. (2009). European climate policy: Toward centralized governance? *Review of Policy Research*, 26(3), 311-328.
- Wettestad, J., Eikeland, P.O., & Nilsson, M. (2012). EU climate and energy policy: A hesitant supranational turn? *Global Environmental Politics*, 12(2), 67-86.
- Wilensky, H. (1975). *The welfare state and equality: Structural and ideological roots of public expenditures*. Berkeley: University of California Press.
- Winfield, M. S. (2008). Climate change and Canadian energy policy: Policy contradiction and policy failure. *Behind the Headlines*, 65(1), 19.
- Winfield, M. S., & MacDonald, D. (2008). The harmonization accord and climate change policy: Two cases studies in federal-provincial environmental policy. In G. Skogstad, & H. Bakvis (Eds.), *Canadian federalism: Performance, effectiveness, and legitimacy* (2nd ed., pp. 266-288). Don Mills: Oxford University Press.
- Winfield, M. S., & MacDonald, D. (2012). Federalism and Canadian climate change policy. In H. Bakvis, & G. Skogstad (Eds.), *Canadian federalism: Performance, effectiveness, and legitimacy* (3rd ed., pp. 241-260). Don Mills, ON: Oxford University Press.
- Wolman, H. (1992). Understanding cross national policy transfers: The case of Britain and the US. *Governance: An international Journal of Policy and Administration*, 5(1), 27-45.

- Woods, A. (2009, December 13). Ontario and Quebec slam Ottawa on climate. *Toronto Star*. Retrieved from http://www.thestar.com/news/canada/2009/12/13/ontario_and_quebec_slam_ottawa_on_climate.html
- Yi, H. and Feiock, R. C. (2012). Policy tool interactions and the adoption of state renewable portfolio standards. *Review of Policy Research*, 29, 193–206.
- Zuckerman, H. (1972). Interviewing an ultra-elite. *Public Opinion Quarterly*, 36(2), 159-175.

APPENDICES

Appendix A: Recruitment Script

Hello, my name is Brendan Boyd and I am a Ph.D student at the School of Public Administration at the University of Victoria.

[If potential participant is an existing contact of the researcher] I have your contact information from when you provided it to me during XX.

[If potential participant's contact information was obtained through publicly available means in the course of the document review] I obtained your contact information from (government directory, strategy document, media release) while conducting my research.

[If potential participant was referred by a previous participant or an existing contact who provided their position or title] XX recommended that I speak with the (position or title) and I obtained your contact information from (government directory, strategy document, media release).

[If potential participant was referred by a previous participant or an existing contact who provided the researcher's contact information to them] I understand that XX provided you with my contact information and I would like to thank you for getting in contact with me.

[If potential participant was referred by a previous participant or an existing contact who provided the researcher with their contact information (with the potential participant's consent)] XX recommended that I speak with you and indicated that you were comfortable with me getting in touch with you directly.

I would like to invite you to participate in my dissertation research project on the development of climate change policy in Canadian provinces.

The objective of the project is to increase the knowledge and understanding of the actions that provinces have taken on climate change and assess their capacity to provide an effective policy response in Canada. You were identified by [referring party's name or other method by which they were identified] as someone who has been involved in, and has knowledge of, provincial climate change policies, and someone that I should speak with to learn more about this topic. One of the goals of the project is to capture your expertise and knowledge in developing and implementing innovative climate change policies and programs to advance the state of knowledge on the subject, and contribute to future policy development efforts in Canada and other jurisdictions.

Your participation would include an interview covering topics related to provincial climate change policy development. The interview is expected to last 45 minutes to an hour, but this is

flexible depending on the time you have available. Arranging and preparing for the interview may require an additional hour of your time. We can conduct the interview at your workplace or an off-site location, wherever is most convenient for you. Your participation would be confidential – any data you provide will be protected throughout the duration of the study and destroyed when it is complete, and the findings will be reported so that it would be extremely unlikely any statements would be attributable to an individual participant.

[If potential participant was referred by a previous participant] Because you were referred to me by XX, it is possible that they may be aware of your participation in this study. However, because the findings will be reported so that it would be extremely unlikely any statements would be attributable to an individual participant; it is extremely unlikely they would be able to attribute individual statements to you.

If you are interested in participating, I will email or mail you a copy of a consent form which provides further information on the nature of the research, your role and how your confidentiality will be protected. If you decide to participate, you can sign the form and return it to the address it indicates, or other arrangements can be made. [If necessary, obtain mailing or email address].

Thank you for your time.

Appendix B: Interview Guide

Thank you for meeting with me. As we discussed when setting up the interview, I'm undertaking this research for my Ph.D at the School of Public Administration at the University of Victoria. My dissertation is focusing on the development of climate change policy in Canada at the provincial level and I would like to get your perspective as someone who has been involved in this area and has expert knowledge of the subject. I just wanted to take this opportunity to remind you that this interview is confidential.

[If participant has received the consent form] I've provided you with a consent form that outlines the nature of the research, your role and how your confidentiality will be protected. Do you have any questions about the form? You can return the signed consent form to me and keep a copy for your records.

[If participant has not received the consent form] I am providing you with a consent form that outlines the nature of the research, your role and how your confidentiality will be protected. Please take as much time as you need to review it. Also, please be aware you are under no obligation to participate just because we are meeting here today and you previously expressed an interest in participating. Do you have any questions about the form? If you decide to participate, you can return the signed consent form to me, keeping a copy for your records, before we begin the interview.

I also wanted to remind you that your participation in this research is completely voluntary. You may withdraw at any time without any consequences or explanation. If you do withdraw from the study, your data, including the interview or any documents you provide, will not be included in the study and will be destroyed, or in the case of documents returned to you, at the researcher's first opportunity.

Questions for elected officials

1. Tell me a little bit about yourself and how you came to be involved in climate change policy.

Prompts: What is your professional background? How long have you been working on the climate change file?

2. What is your role in developing climate change policy as part of this government?

Prompts: Can you tell me a bit more about your involvement. What were your primary responsibilities? Did you have responsibility for making key decisions?

3. What are the main reasons the government is taking action on climate change?

Prompts: Does the government have any other motivations?

4. Have the motivations for taking action changed over time and, if so, what caused them to change?
5. Why did you choose to address climate change through Initiative X?
6. Have there been any notable changes in the overall direction of the government's policy on climate change since it was first established?

Prompts: Can you go into more detail on these changes: What caused them and what affect did they have?

7. What are the biggest challenges you have faced in taking action on climate change?

Now I want to change direction and talk about the influence of other provinces and jurisdictions that are also developing climate change policy.

8. When making the decision to address climate change, did you look at what other jurisdictions were doing or use other policies as a model?
9. Why did you look at this/these jurisdiction(s) over others? What were they doing that attracted you to their efforts?
10. What, exactly, were you trying to achieve by gathering and using this information?
11. How did you incorporate what they were doing into the initiatives you were working on?
12. What influenced the decision to participate in regional agreements or other forms of collaboration (or not) with other jurisdictions?

Prompts: Can you elaborate on this decision? What was the government hoping to accomplish by participating (or not)?

13. (If they did collaborate) How has collaboration with other jurisdictions affected what is being done on climate change in this province?
14. I have focused on the reasons for addressing climate change, the challenges you have faced and your interactions with other jurisdictions – do you think there are other factors

at play or more important issues to consider as you think about the initiation and evolution of this policy initiative?

15. Do you have any suggestions for other individuals I should contact? What about other sources of information?

Questions for policy analysts

1. Tell me a little bit about yourself and how you came to be involved in climate change policy.

Prompts: What is your professional background? How long have you been working on the climate change file?

2. What is your role in climate change Initiative(s) X?

Prompts: Can you tell me a bit more about your involvement in these initiatives? When did you start? What areas or tasks are you responsible for?

3. In your opinion, what are the main reasons the government is undertaking this initiative?

Prompts: Does the government have any other motivations?

4. Have the government's motivations changed over time and, if so, what do you think caused them to change?

5. Why was Initiative X chosen, over other options, to address climate change?

6. Have there been any notable changes in the climate change initiatives you have worked on since they were established?

Prompts: Can you go into more detail on these changes: What caused them and what affect did they have?

7. What were the biggest challenges you faced in working on climate change initiatives?

Now I want to change direction and talk about the influence of other provinces and jurisdictions that are also developing climate change policy.

8. When working on climate change initiatives, did you look at what other jurisdictions were doing to address similar issues, or use other policies as a model?
9. (If they did) Why did you choose this/these jurisdictions over others? What were they doing that attracted you to their efforts?
10. What, exactly, were you trying to achieve by gathering and using this information?
11. How did you incorporate what they were doing into the initiatives you were working on?
12. Did you work directly with people in other jurisdictions who were also working on climate change initiatives?

Prompts: Can you elaborate on what this experience was like? What did it involve?

13. (If they did collaborate) How did working with other jurisdictions affect the work you are doing?
14. I have focused on the reasons for addressing climate change, the challenges you have faced and how you worked with other jurisdictions – do you think there are other factors at play or more important issues to consider as you think about the initiation and evolution of this policy initiative?
15. Do you have any suggestions for other individuals I should contact? What about other sources of information?

Questions for senior government officials

1. Tell me a little bit about yourself and how you came to be involved in climate change policy.

Prompts: What is your professional background? How long have you been working on the climate change file?

2. What is your role in the development of climate change policy in the province?

Prompts: Can you tell me more about your involvement? What were your primary responsibilities? Were you involved in key decision-making processes?

3. What are the main reasons the government is taking action on climate change?

Prompts: Does the government have any other motivations?

4. Have the government's motivations changed over time and, if so, what caused this?
5. Why did you choose to address climate change primarily through "Initiative X"?
6. Have there been any notable changes in the overall direction of climate change policy since it was first established?

Prompts: Can you go into more detail on these changes: What caused them and what affect did they have?

7. What are the biggest challenges you have faced in taking action on climate change?

Now I want to change direction and talk about the influence of other provinces and jurisdictions that are also developing climate change policy.

8. When making the decision to address climate change, did you look at what other jurisdictions were doing or use them as examples?
9. (If they did) Why did you choose this/these jurisdictions over others? What were they doing that attracted you to their efforts?
10. What, exactly, were you trying to achieve by gathering and using this information?
11. How did you incorporate what they were doing into the initiatives you were working on?
12. What influenced the decision to enter into agreements, or other forms of collaboration (or not), with other jurisdictions?

Prompts: Can you elaborate on this decision? What were you hoping to accomplish by participating (or not)?

13. (If they did collaborate) What affect has collaboration with other jurisdictions had on what is being done on climate change in this province?
14. I have focused on the reasons for addressing climate change, the challenges you faced and how you worked with other jurisdictions – do you think there are other factors at play

or more important issues to consider as you think about the initiation and evolution of this policy initiative?

15. Do you have any suggestions for other individuals I should contact? What about other sources of information?

Questions for policy experts in non-government organizations

1. Tell me a little bit about yourself and how you came to be involved in climate change policy.

Prompts: What is your professional background? How long have you been working on the climate change file?

2. How would you describe your involvement in climate change policy in this province?

Prompts: Can you tell me more about how you were specifically involved? Did you attend high level meetings or review policy proposals?

3. In your opinion, what are the main reasons the government is taking action on climate change?

Prompts: Does the government have any other motivations?

4. Have the government's motivations changed over time and, if so, what do you think caused them to change?
5. Why do you think the government chose to address climate change through Initiative X?
6. Have there been any notable changes in the government's position since it first began to address climate change?

Prompts: Can you go into more detail on these changes: What caused them and how did they affect what the government is doing?

7. What have been the biggest challenges in getting the government to take appropriate action on climate change?

Now I want to change direction and talk about the influence of other provinces and jurisdictions that are also developing climate change policy.

8. In your work on climate change, did you look at what other jurisdictions were doing to address similar issues or suggest other policies to government as a model?
9. Why did you choose this/these jurisdictions over others? What were they doing that attracted you to their efforts?
10. What, exactly, were you trying to achieve by gathering and using this information?
11. How do you think the government's decision to participate in regional agreements, or other forms of collaboration (or not) with other jurisdictions has affected what they are doing on climate change?
12. I have focused on the reasons for addressing climate change, the challenges in taking action and collaboration with other jurisdictions – do you think there are other factors at play or more important issues to consider as you think about the initiation and evolution of this policy initiative?
13. Do you have any suggestions for other individuals I should contact? What about other sources of information?

Questions for members of business and environmental interest groups

1. Tell me a little bit about yourself and how you came to be involved in climate change policy.

Prompts: What is your professional background? How long have you been working on the climate change file?

2. How would you describe your involvement in climate change policy in this province?

Prompts: Can you tell me more about how you were specifically involved? Did you attend high level meetings or review policy proposals?

3. In your opinion, what are the main reasons the government is taking action on climate change?

Prompts: Does the government have any other motivations?

4. Have the government's motivations changed over time and, if so, what do you think caused them to change?
5. Why do you think the government chose to address climate change through Initiative X?
6. Have there been any notable changes in the government's position since it first began to address climate change?

Prompts: Can you go into more detail on these changes: What caused them and how did they affect what the government is doing?

7. What have been the biggest challenges in getting the government to take appropriate action on climate change?

Now I want to change direction and talk about the influence of other provinces and jurisdictions that are also developing climate change policy.

8. In your work on climate change, did you look at what other jurisdictions were doing to address similar issues or suggest other policies to government as a model?
9. Why did you choose this/these jurisdictions over others? What were they doing that attracted you to their efforts?
10. What, exactly, were you trying to achieve by gathering and using this information?
11. How do you think the government's decision to participate in regional agreements, or other forms of collaboration (or not) with other jurisdictions has affected what they are doing on climate change?
12. I have focused on the reasons for addressing climate change, the challenges in taking action and collaboration with other jurisdictions – do you think there are other factors at play or more important issues to consider as you think about the initiation and evolution of this policy initiative?
13. Do you have any suggestions for other individuals I should contact? What about other sources of information?

Questions for policy makers outside of Canada

1. Tell me a little bit about yourself and how you came to be involved in provincial climate change policy.

Prompts: What is your professional background? How long have you been working on the climate change file?

2. What was your role in assisting the development of climate change policy in the province?

Prompts: Can you tell me more about your involvement? What were your primary responsibilities? Were you involved in key decision-making processes?

3. What are the main reasons the provincial government is taking action on climate change?

Prompts: Does the government have any other motivations?

4. Have the provincial government's motivations changed over time and, if so, what caused this?

5. Why did they choose to address climate change primarily through "Initiative X"?

6. Have there been any notable changes in the overall direction of the province's climate change policy since it was first established?

Prompts: Can you go into more detail on these changes: What caused them and what affect did they have?

7. What are the biggest challenges they faced in taking action on climate change?

Now I want to change direction and talk about your influence on other provinces climate change policy development.

8. (If they did) Why did they choose your jurisdiction over others? What were you doing that attracted them to your efforts?

9. What, exactly, were they trying to achieve by gathering and using this information?

10. How did they incorporate what you were doing into the initiatives they were working on?

11. What influenced their decision to enter into agreements, or other forms of collaboration (or not), with your jurisdiction?

Prompts: Can you elaborate on this decision? What were they hoping to accomplish by participating (or not)?

12. (If they did collaborate) What affect has collaboration with other jurisdictions had on what is being done on climate change in their province?

13. I have focused on the reasons for addressing climate change, the challenges they faced and how they worked with other jurisdictions – do you think there are other factors at play or more important issues to consider as you think about the initiation and evolution of this policy initiative?

14. Do you have any suggestions for other individuals I should contact? What about other sources of information?

Canadian Provincial Climate Change Policy Research Project

You are invited to participate in a study entitled *Canadian Provincial Climate Change Policy Research Project* that is being conducted by Brendan Boyd. Brendan is a Ph.D student in the School of Public Administration at the University of Victoria and is conducting research as part of the requirements for his degree.

Purpose and Objectives

The purpose of this research project is to increase the knowledge and understanding of provincial climate change policy responses in Canada, focusing on the collaboration that has occurred between them. The research will provide an opportunity to share the expertise and knowledge you have gained implementing provincial initiatives, with others involved in, or studying, climate change policy. The findings will contribute to the academic study of climate change policy development in Canada, and will provide practical lessons for policy-makers. It is anticipated that the results of this study will be shared with others through the researcher's Ph.D dissertation, presentation at scholarly meetings and in published articles or a book.

Participant Selection and Voluntary Participation

You are being asked to participate in this study because you have been involved in, and have knowledge of, provincial climate change policy development, including key decisions, issues and events. Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study your data will not be included in the study and will be destroyed or returned to you. If a follow-up interview is required, the researcher will verbally re-affirm your consent and make a clear distinction from any other communication that occurs after the initial interview. It is not anticipated that participation in this research will cause an inconvenience to you beyond the required time commitment and there are no known or anticipated risks to you by participating in this research.

Participation in this study would include an interview with the researcher covering topics related to provincial climate change policy development. Interviews are expected to last approximately 45 minutes to an hour. Arranging and preparing for the interview could require an additional hour of your time. The interview would be conducted at your workplace or an off-site location, depending on your preference. An audio recording of the interview will be taken with your permission. If you do not wish the interview to be recorded, hand-written notes will be taken.

You may provide any documents you think will be beneficial to the researcher; however, you must ensure that you have approval from the appropriate parties within your organization to provide documents which are not publicly available.

Anonymity and Confidentiality

It is extremely unlikely that anyone, other than the researcher, will be able to connect statements to individual participants in the study during analysis or in dissemination of results. If another individual has referred you to the researcher, they may be aware of your potential participation in the study; however, results will be reported in a manner that will make it extremely unlikely any statement could be attributed to a specific participant. Your confidentiality will be protected by removing all identifying information from files related to the interview. Any documents you provide must have all identifying information removed prior to being given to the researcher. All files will be assigned an ID number and the key linking participant's to these numbers will be kept in a secure location to which only the researcher has access. All data from this study will be securely destroyed at the end of the project, which is anticipated to be August 2014.

Contacts

If you have questions at any time you can contact Brendan at bboyd@uvic.ca. If you are willing to participate in this study, the signed form can be picked up at the time of the interview or returned to:

Brendan Boyd,

School of Public Administration,
University of Victoria
PO Box 1700, STN CSC
Human and Social Development Building, A302,
Victoria, BC V8W 2Y2

Other individuals that may be contacted regarding this study include Dr. Evert Lindquist, Dissertation Supervisor (250-721-8084 or evert@uvic.ca) and the Human Research Ethics Office at the University of Victoria (250-472-4545 or ethics@uvic.ca).

Your signature below indicates that you understand the above conditions of participation in this study, that you have had the opportunity to have your questions answered by the researchers, and that you consent to participate in this research project.

Name of Participant *Signature* *Date*