The Construction of Municipal Climate Change Policy: Calgary and Toronto's Participation in the Partners for Climate Protection Program

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Abstract

**The Construction of Municipal Climate Change Policy:
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This thesis explains variations in municipal participation in Canada's Partners for Climate Protection Program through an examination of the cases of Calgary and Toronto. I argue that this transnational municipal network and its members employ particular forms of discourse to frame climate change knowledge in a way that reflects the interests and constraints faced by municipal actors. Furthermore, the policy actions advocated by the program and implemented in Calgary and Toronto reflect these interests and constraints by detaching action on climate change from a necessity to respond to the problem, and instead focusing on the benefits of implementing particular solutions. On the one hand, therefore, the interests and constraints at the municipal level determine how the network frames climate change. On the other hand, I argue that this framing results in the need for the program to provide resources to its members in order to encourage participation, and that the perceived value of these resources explains the difference between program participation in Calgary and Toronto. My argument therefore provides an explanation of Partners for Climate Protection participation that considers the influence of both the network *and* its members in the construction of municipal climate change policy.

Acknowledgements

I once read a blog posting that compared the thesis-writing process to a scene from *Indiana Jones and the Last Crusade*. There's a moment in the movie where Indy struggles to reach the Holy Grail as the temple crumbles around him. His father, played by Sean Connery, convinces him to give it up and escape the temple alive. The message: sometimes you need outside help in order to be successful. Though I'm tempted to add the image of the rolling boulder chasing Indiana Jones in *Raiders of the Lost Ark*, I think, as a metaphor about the necessity of support, the *Last Crusade* scene is particularly relevant to my thesis experience; I've been fortunate to have many Sean Connerys along the way.

Chief amongst these is Peter Stoett, my thesis supervisor. He provided guidance, challenges, ideas and timely feedback, all the while making room for me in an already overburdened schedule. The members of my thesis committee—Craig Townsend, Axel Huelsemeyer and especially Beth Bloodgood—went above and beyond in helping me through theoretical and definitional impasses. Thanks are also due to the excellent professors I took classes from at Concordia and to the staff, most notably Julie Blumer, who put up with question after question and demand after demand in almost superhuman fashion. As well, my appreciation to the Social Sciences and Humanities Research Council of Canada and the Power Corporation of Canada for their generous financial support.

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but more importantly, a chance to do just the opposite when I didn't. In the same vein, thanks to my parents and my brother for their endless support and their seemingly effortless recognition of the right time and the wrong time to ask how the thesis was going. Last but most certainly not least, a very special thanks to Danielle Rae. She's followed, encouraged, supported, loved and, frankly, put up with me since long before the beginning of this process, and for that I am incredibly grateful.

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Chapter One

Introduction: The Construction of Municipal Climate Change Policy

Local Responses to Global Environmental Problems

The world's cities are growing at a pace unparalleled in human history. This rapid growth raises important questions about how to manage not only the growing populations of cities, but how to manage their growing environmental impacts as well. As large concentrations of producers and consumers, cities are a source of environmental degradation that becomes increasingly pronounced as more of the world's people leave the countryside for the perceived opportunities of urban centres.[1] While this degradation may be most obvious with respect to local issues such as habitat destruction, there is a growing recognition of cities' contribution to what have traditionally been seen as global environmental problems as well.[2] One response to this growing recognition is the proliferation of transnational municipal networks: global coalitions of municipal governments that frame coordinated local action as an important step toward ameliorating urban environmental damage. The most prominent of these networks is the Cities for Climate Protection (CCP) Campaign, a partnership of almost 700 of the world's cities that encourages the implementation of municipal greenhouse gas reductions.

In this thesis, I explore the political dynamics that determine municipalities' levels of participation in the CCP Campaign. To do so, I examine the construction of climate change policy in two of the network's Canadian member cities—Calgary and

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[1] UN Habitat, *Cities in a Globalizing World: A Global Report on Human Settlements 2001* (London: Earthscan, 2002), 114.

[2] See, for example, Richard Stren, "A Comparative Approach to Cities and the Environment," in *Sustainable Cities: Urbanization and the Environment in International Perspective*, eds. Richard Stren, Rodney White and Joseph Whitney (San Francisco: Westview, 1992): 1-7.

Toronto. In Canada, the Cities for Climate Protection Campaign is administered under the name of the Partners for Climate Protection (PCP) Program.[3] Of the 155 Canadian PCP members, the City of Calgary is one of the program's most active participants. Toronto, however, is a relatively inactive program participant. By explaining this variation in network participation between Calgary and Toronto, I will shed light on the factors that shape participation in this transnational municipal network.

Research Question and Theoretical Approach

The research question my study addresses is: what accounts for the variation in network participation between members of the Partners for Climate Protection Program? As I discuss in Chapter Two, various authors have addressed similar questions in their examinations of transnational municipal networking. However, previous explanations of network participation are somewhat limited in that they consider the influence of a network such as the PCP Program as being unidirectional; that is, a municipality's level of participation can be explained by the effectiveness of the network's efforts to place climate change on the urban agenda and encourage policy implementation. Instead, I argue that participation in the PCP Program must be construed as bidirectional, influenced both by the actions of the network and by the constraints and interests of its members. Furthermore, because of its unidirectional focus, much of the literature on the global CCP Campaign points to the influence of the network as the driving force behind municipal climate change policies. In this sense, Calgary and Toronto provide fascinating cases for study. Both cities have what is generally considered the most

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[3] The reasons behind this puzzling parlance are explored in more detail in Chapter Three. For now, it is sufficient to recognize that the Partners for Climate Protection Program is simply the Canadian version of—and therefore is synonymous with—the global Cities for Climate Protection Campaign. With that in mind, I will refer almost exclusively to the former from this point forward.

advanced municipal climate change policy in Canada, but only Calgary is an *active* member of the Partners for Climate Protection Program.

To address the question of what accounts for the variation in network participation, I examine Calgary and Toronto's climate change policies through the lens of constructivist theory. This approach views knowledge as a social construction that is employed to legitimize particular actions. I argue that the discourse of both the PCP Program and its members frames climate change knowledge in a way that reflects the interests and constraints faced by municipal actors. Furthermore, the particular form of policy actions advocated by the network and implemented in Calgary and Toronto reflects these interests and constraints by, as I argue in Chapter Four, detaching action on climate change from a necessity to respond to the problem, and instead focusing on the benefits of implementing particular solutions. On the one hand, therefore, the interests and constraints at the municipal level determine the framing of climate change by the network. On the other hand, however, I argue that this framing results in the need for the network to provide resources to potential members in order to encourage participation, and that the perceived value of these resources explains the difference between participation in Calgary and Toronto. The argument that follows, therefore, provides an explanation for PCP participation that considers the influence of both the network *and* its municipal members.

Urban Environmental Effects

With the research question established, an inquisitive reader might wonder: why does any of this matter? The question of what accounts for municipalities' participation in a transnational network to confront climate change is an important one because of the

growing recognition of urban impacts on ecological degradation. As the loci of industry and population, cities are significant consumers of renewable and non-renewable natural resources, major sources of pollution, and have "substantial ecological footprints, requiring vast areas of land to provide the food, energy, water and natural resources to keep them operating."[4] Moreover, as cities grow, their environmental impact grows along with them. Given past rates and future projections of urban growth, the potential for environmental damage is staggering: while only ten percent of the global population lived in cities at the turn of the 20th century, today, over half do;[5] while New York City was the only world centre with a population over 10 million in 1950, by 2015 it is expected that there will be 21 such mega cities;[6] and as quickly as these mega cities are growing, medium-sized urban agglomerations are experiencing even higher rates of population growth.[7] With these projections for growth, the cities of today and tomorrow constitute a tremendous impact on earth's natural systems.[8]

The environmental impact from cities comes in many forms. The destruction of habitat that results from the increased demand for land can pose threats to local, regional, and global biodiversity.[9] The reliance of cities on local watersheds and groundwater sources for residents' water needs is another area where the population of many cities may have overstretched the carrying capacity of the local environment; Mexico City, for

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[4] Bob Evans, Marko Joas, Susan Sundback and Kate Theobald, *Governing Sustainable Cities* (London: Earthscan, 2005), 1.
[5] UN Habitat, 114.
[6] Hania Zlotnik, "World Urbanization: Trends and Prospects," in *New Forms of Urbanization: Beyond the Urban-Rural Dichotomy*, eds. Tony Champion and Graeme Hugo (Burlington, VT: Ashgate, 2004), 61.
[7] Ibid., 65
[8] Andre Sorensen, Peter J Marcotullio and Jill Grant, "Towards Sustainable Cities," in *Towards Sustainable Cities: East Asian, North American and European Perspectives on Managing Urban Regions*, eds. same (Burlington, VT: Ashgate, 2004), 5.
[9] UN Habitat, "Ecosystems and Biodiversity: The Role of Cities Involvement," 2006, http://www.unhabitat.org/pmss/getPage.asp?page=promoView&promo=2225 (accessed 4 November 2006).

example, has sunk some ten metres over the past 70 years because of excessive groundwater withdrawal.[10] Air pollution in many of the world's largest cities is another example of environmental degradation. Globally, more than one billion people live in cities where air pollution levels exceed UN-defined acceptable health standards.[11] In India, for example, air pollution is estimated to have caused 52,000 premature deaths in 36 cities in 1995.[12]

The example of air pollution points to another major environmental impact of cities: their contribution to global climate change. As the world's centres for industry and population, individual city level actions have a tremendous cumulative impact on the global phenomenon of climate change. According to the United Nations, over 80 percent of global carbon dioxide emissions originate from cities and the infrastructural networks that service them.[13] Given this high proportion, without the assistance of municipal governments, national governments will be unable to meet their international commitments to reduce greenhouse gas emissions as a response to climate change.[14] Data from a number of countries show that local authorities control some 30 to 50 percent of the policy mechanisms available for dealing with greenhouse gas emissions.[15] These controls include land use planning, infrastructure decisions, transportation systems, building codes and waste management processes.[16] Additionally, local governments can

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[10] UN Habitat, *Cities in a Globalizing World*, 114.
[11] Ibid., 137.
[12] Ibid.
[13] UN Habitat, "Urban Environment," January 2006, http://www.unhabitat.org/pmss/getPage.asp?page=periodView&period=2043 (accessed 4 November 2006).
[14] Michele M. Betsill, "Mitigating Climate Change in US Cities: opportunities and obstacles," *Local Environment* 6, vol. 4 (2001): 394.
[15] Gard Lindseth, "The Cities for Climate Protection Campaign (CCPC) and the Framing of Local Climate Policy," *Local Environment* 9, vol. 4 (August 2004): 325.
[16] ICLEI, "2003 Triennial Report," 2003, http://www.iclei.org/documents/iclei_tiennial_00_03.pdf (accessed 4 November 2006): 12. Betsill, 394.

facilitate action by industry and individuals in response to climate change, as well as lobby national governments for further action.[17] Thus the decisions of municipal governments and their participation in networks such as the Partners for Climate Protection Program have the potential to significantly reduce urban greenhouse gas emissions, ameliorating the effect of municipalities on global climate change.

For those concerned with addressing municipalities' impacts on climate change, then, the question of why municipal governments actively engage with a transnational municipal network to reduce their greenhouse gas emissions is an interesting one. Thus one practical motivation underpinning my research question is that the lessons to be learned from municipalities such as Calgary and Toronto could shed light on ways to encourage other municipal governments to take action. Furthermore, while my analysis focuses on climate change efforts, in the final chapter I discuss possible lessons from my work for effective discursive strategies to frame action with respect to other urban environmental issues. While the point of this thesis is not to propose a prescription for successful strategies to confront municipal climate change, the argument within may provide a promising starting point for doing so.

Research Design and Methodological Approach

Before I describe my own research design and methodological choices, it must be recognized that these decisions are not made at the sole discretion of the researcher. Rather, the advantages and disadvantages of particular research designs and methodologies are influenced by a number of factors. First amongst these is the impact of the nature of the research question. Rather than one research design or methodology

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[17] Michele M. Betsill and Harriet Bulkeley, "Cities and the Multilevel Governance of Global Climate Change," *Global Governance* 12 (2006): 143.

being conceptualized as intrinsically superior or inferior to another, there is widespread recognition in the social sciences that different approaches are appropriate for and influence the answer to different questions.[18] Thus research design and methodological decisions are influenced to some degree by the requirements of research questions.[19] The second influence on these decisions is the particular theoretical approach applied to the research question. Theory dictates where researchers should look to answer their questions,[20] and the direction offered by a particular theoretical approach will dictate both the research design choices that are made and a researcher's methodological requirements. Finally, while it may seem mundane, research design and methodological choices are also influenced by the practicalities of conducting research. Though theory and the research question lead to a privileging of certain ways of conducting research over others, the decision on how to proceed with social scientific research must respect the time and money available to actually carry out the research as well.

My research design and methodological choices reflect the influence of all of these factors. By asking what accounts for the variation in participation between members of the Partners for Climate Protection Program I limit my possible study sample to the 155 PCP members, and must examine both active and inactive members in order to arrive at an explanation. By employing a constructivist theoretical approach I effectively limit this sample even more, since constructivist theory looks at the structural context in

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[18] Howard S. Becker, "The Epistemology of Qualitative Research," in *Ethnography and Human Development: Context and Meaning in Social Inquiry*, A. C. Richard Jessor, Richard Schweder eds. (Chicago: University of Chicago Press, 1996): 53-72.

[19] Stanley Lieberson, *Making it Count: The Improvement of Social Research and Theory* (Berkeley: University of California Press, 1985), 102. Stanley Lieberson, "Small N's and Big Conclusions: An Examination of the Reasoning in Comparative Studies Based on a Small Number of Cases," *Social Forces* 70, no. 2 (1991): 318.

[20] W. Lawrence Neuman, *Social Research Methods: Qualitative and Quantitative Approaches, 6th ed.* (Toronto: Allyn and Bacon, 2005), 16.

which strategic action occurs,[21] and therefore necessitates an in-depth analysis and familiarity with each individual case in order to generate an explanation with respect to my research question. Given the practical constraints of both time and money it is unrealistic to expect this level of familiarity to be achieved vis-à-vis all 155 network members; indeed, it is only possible to examine a small number of cases. Thus my research design and methodological decisions are somewhat dictated by the demands of my research question, my particular theoretical approach, and my resource limitations.

To satisfy these demands, my research design employs a comparative case study approach. As discussed above, I examine the variation in Partners for Climate Protection Program participation by looking at the evolution of municipal climate change policy in the Canadian cities of Calgary and Toronto. It is widely recognized that "case studies are essential for description and, therefore, fundamental to social science,"[22] and that an in-depth understanding of particular cases offers a useful tool of analysis to examine the underlying forces that provide an explanation for political phenomena.[23] Furthermore, small-N comparative analysis of this type allows a researcher to become intimately familiar with the decision-making context in particular cases, and is therefore well suited for explaining network participation through my theoretical lens of constructivism, while also recognizing the practical constraints of time and money faced in the research process.

Calgary and Toronto provide excellent cases for analysis in this comparative study for a number of reasons. First, the literature shows that larger Canadian

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[21] I expand upon this point in more detail in Chapter Two.

[22] Gary King, Robert O. Keohane and Sidney Verba, *Designing Social Inquiry: Scientific Inference in Qualitative Research* (Princeton: Princeton University Press, 1994), 44.

[23] Stephen Van Evera, *Guide to Methods for Students of Political Science* (Ithaca: Cornell University Press, 1997), 55.

municipalities are more likely than their smaller counterparts to have enacted some type of climate change policy, and both Calgary and Toronto are a demonstration of this.[24] Second, as two of Canada's largest municipalities, Calgary and Toronto face similar policy challenges and have comparable institutional capacities. Third, the timeframe for analysis in the two cases is comparable, as both the implementation of municipal climate change actions and participation in the PCP Program began in the early 1990s and continue to the present day in both cities. Finally, the most important reason for choosing Calgary and Toronto as the cases in this comparative analysis is the present state of climate change policy in the two cities. Both cities have extremely advanced climate change policies vis-à-vis the majority of other Canadian municipalities—that is, both have released plans for the reduction of municipal greenhouse gas emissions and have implemented policy measures as a means of applying these plans. However, as I described above, though both cities are members of the Partners for Climate Protection Program they are at very different stages in their PCP participation, as measured by their progression through the network's 'milestone process.'[25] While Calgary has achieved Milestone Five and is the most advanced PCP member, Toronto has not progressed past Milestone Two and remains a relatively inactive network member. These two cases therefore demonstrate variation in their levels of network participation, while also providing an interesting puzzle for analysis given that the literature sees the broader Cities for Climate Protection Campaign as the driving force behind active municipal

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[24] Pamela J. Robinson and Christopher D. Gore, "Barriers to Canadian Municipal Response to Climate Change," *Canadian Journal of Urban Research* 14, no. 1 (2005): 102-120.

[25] I examine the milestone process in more detail in Chapter Three. For now it is sufficient to recognize that by level of PCP participation I am referring to a municipality's progression through these milestones.

climate change policies; clearly not the case in a relatively inactive network member such as Toronto.

While a comparative case study approach is a useful research design for my purposes, it is not immune from criticism. A major concern about the case method is the potential for bias in case selection. Given that researchers are trying to address a particular phenomenon, random case selection is rarely appropriate in comparative case studies. Instead, cases must be selected based on desirable outcomes,[26] exactly as I have done with respect to the inclusion of Calgary and Toronto in my study. However, the result of choosing cases based on positive outcomes leads some to question if there is a potential for case-based research to lead to false conclusions.[27] A common response to this accusation and a defense of comparative case studies in general points to the approach's usefulness in providing rich histories and explanatory insight in particular cases.[28] Thus while I acknowledge the criticism that my choice of cases could potentially reflect a selection bias,[29] I maintain that this is unavoidable in a research design involving comparative case study. Furthermore, this comparative research design remains the most logical and thorough approach given my research question, theoretical perspective, and practical considerations.

With the research design established, the question of a methodological approach remains. The first step in the methodological process is data gathering, and the

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[26] King et al., 128.

[27] Bernhard Ebbinghaus, "When Less is More: Selection Problems in Large-N and Small-N Cross-National Comparisons," *International Sociology* 20, no. 2 (2005): 142.

[28] Norman Denzin and Yvonna S. Lincoln, "Introduction: The Discipline and Practice of Qualitative Research," in *The Landscape of Qualitative Research: Theories and Issues*, eds. same (Thousand Oaks, CA: Sage, 2003): 1-46. See also, Jack Goldstone, "Methodological Issues in Comparative Macrosociology," *Comparative Social Research* 16 (1997): 107-120., and Van Evera, 78.

[29] This reflects the argument that researchers should be as open about their research process as possible in order to increase confidence in their findings. King et al., 51.

information I analyze for the explanation of PCP participation comes from both primary and secondary sources. In terms of primary sources, I approach the research question with the assumption that if you want to know why someone has done something the best thing to do is ask,[30] and I draw upon interviews with the individuals responsible for municipal climate change policy in Calgary and Toronto,[31] as well as the individual who administers the PCP Program through its host organization, the Federation of Canadian Municipalities.[32] All interview subjects were asked a series of questions about their actions with respect to municipal climate change policy in general and the PCP Program in particular. While these questions were similar, it should be noted that I did not approach the interviews with a specific questionnaire. Instead, I draw from Schostak, who describes interviewing as akin to a discussion, "not a tool, but an encounter, an event amongst other events in the lives of people."[33] By conceiving of the process in this sense the interview becomes a "continual calculation of possibilities, consequences and response," and can be compared to a conversation whereby the incorporation of additional information changes the nature of the discussion itself.[34] Thus interviews are especially helpful in the comparative case study context, as they offer a means to incorporate and address information about the motivations for particular actions.

In addition to the interviews, the second part of the data-gathering process relies on the analysis of primary and secondary documentation. I examine both Calgary and

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[30] Michael Brenner, Jennifer Brown and David Canter, eds., *The Research Interview: Uses and Approaches* (London: Academic Press, 1985), 2.

[31] Rob Shymanski, City of Calgary, interview by author, Calgary, AB, 25 September 2007. Christopher Morgan, City of Toronto, interview by author, Toronto, ON, 24 September 2007.

[32] Devin Causley, Federation of Canadian Municipalities, interview by author, Ottawa, ON, 19 September 2007.

[33] John Schostak, *Interviewing and Representation in Qualitative Research* (New York: McGraw-Hill, 2006), 18.

[34] Ibid., 15. Nevertheless, see Appendix One for a list of questions I used to guide each interview.

Toronto's websites and documents related to their respective climate change action plans, as well as the PCP Program's website and documentation on network participation. I also draw from secondary sources in the form of local and national media.[35] These sources are all essential in establishing the context in which municipal climate change policy decisions and PCP participation occur. Furthermore, understanding this context provided direction to the interview process in terms of the types of questions that were asked. Like the use of interview results, then, the analysis of primary and secondary documentation is a methodological tool for data gathering that aligns with and contributes to the usefulness of the comparative case study approach.

With the sources for data gathering established, the second part of the methodological process is data analysis. I employ a mixed methodological approach in my analysis of the interview and documentary data. The first element of this approach involves the use of process tracing, which is a tool to identify the link between explanations and outcomes.[36] I employ this method to analyze my data and determine the process by which the construction of municipal climate change policy influences PCP participation. Used in this way, process tracing is valuable because it explores in detail the context in which specific explanatory mechanisms operate in an effort to eliminate doubt about an explanation of a particular phenomena. The level of detail demanded by the approach also makes it a particularly useful methodological tool for analysis with

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[35] The specific websites and documents examined can be found in the works cited list at the end of this thesis, and will be addressed in greater detail in Chapter Three.

[36] James Mahoney, "Strategies of Causal Assessment in Comparative Historical Analysis," in *Comparative Historical Analysis in the Social Sciences*, James Mahoney and Dietrich Rueschemeyer, eds. (Cambridge: Cambridge University Press, 2003): 337-372. See also, James Mahoney, "Strategies of Causal Inference in Small-*N* analysis," *Sociological Methods & Research* 28, no. 4 (May 2000): 387-424.

respect to constructivist theory because it involves an in-depth investigation of the decision-making process within a specific context.

Combined with process tracing, the second element of my methodological approach to analyzing the data is discourse analysis. As I explain in the next chapter, constructivist theory looks to the use of language to legitimize certain forms of knowledge at the expense of alternatives. Discourse analysis, then, examines how language is used in "the processes by and through which policy problems and even policy arenas are constructed."[37] Furthermore, a discursive approach recognizes that actors are motivated to engage in specific forms of discourse in order to advance particular policy views, and that there is competition between these forms.[38] It therefore allows researchers to question the motivations behind policy actions,[39] and is a particularly promising approach for environmental issues, where the framing of information and knowledge is often decisive to policy decisions.[40] In concert with process tracing, therefore, I examine the use of discourse by both the network and its members to frame climate change policy in a particular way, and from this framing I generate an explanation for the variation in PCP participation.

As with all methodological choices, there are potential criticisms of my decisions with respect to tools for data gathering and analysis. An obvious target is the use of interviews as a methodological tool to gather data for comparative analysis. Interviews are often criticized because of their potential to provide biased or inaccurate results, and

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[37] Peter H. Feindt and Angela Oels, "Does Discourse Matter? Discourse Analysis in Environmental Policy Making," *Journal of Environmental Policy & Planning* 7, no. 3 (Sept 2005): 162.

[38] Maarten Hajer and Wytske Versteeg, "A Decade of Discourse Analysis of Environmental Politics: Achievements, Challenges and Perspectives," *Journal of Environmental Policy & Planning* 7, no. 3 (Sept 2005): 176.

[39] Feindt and Oels.

[40] Hajer and Versteeg, 177.

indeed, interviewers are even accused in some cases of inducing their data by leading their subjects.[41] The particular interview approach employed here, whereby the interview process is treated as an open conversation as opposed to a rigid questionnaire, does little to lessen these concerns. Moreover, criticism could arise because I conducted a total of three interviews with individuals involved in municipal climate change policy and the Partners for Climate Protection Program. Given the value constructivist theory ascribes to the in-depth examination of specific decision-making contexts, this relatively small number of interviews may raise questions in readers' minds about the validity of my argument.

I maintain that the limited number of interviews conducted was, to a large extent, unavoidable. As I explain in further detail below, the number of bureaucrats working on climate change policy in Canadian municipalities is surprisingly small and, as a result, the pool of individuals to interview is quite limited.[42] As well, supplementing the interview data with the analysis of documentation from involved participants should eliminate some concern about the potential for inaccurate responses and biased results. Furthermore, concerns about the fluidity of the interview process are assuaged to some extent in my work in a rather serendipitous fashion. While I have made it clear that I approach the question of variations in PCP participation through the theoretical lens of constructivism, this was not my original intention. Indeed, at the time the interviews were conducted I planned to discuss the PCP Program from the perspectives of advocacy

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[41] Brenner et al, 4.

[42] Though I was able to speak with administrators in both Calgary and Toronto, as well as at the PCP Program itself, my attempts to interview politicians engaged with municipal climate change policy in the two cities were unsuccessful. Given the argument that follows I recognize it would have been useful to interview these individuals, but their lack of interest in participating is simply one of the practical constraints of the research process.

coalition and elite theory, and used these approaches to guide my questioning. The results of the data gathering, however, showed that neither theoretical approach was particularly useful for answering the research question under consideration here. Indeed, I found I had a far more interesting and compelling argument to make by examining network participation through the lens of constructivist theory. In this way, constructivist theory guided the data analysis but did not necessarily contribute to its gathering, and certainly did not lead to an inducing of interview results.

Another concern that may be raised about this research design and methodological approach is the capacity for generalization from the data obtained in Calgary and Toronto to the broader PCP Program. It is usually expected that theoretical explanations should be generalizable in order to explain as much of the world as possible.[43] However, the comparative case method in general, and process tracing and discourse analysis in particular, are accused of being too reliant on generating explanations within a specific context to allow for generalizability.[44] Moreover, the concern over the selection of cases for their positive outcomes, discussed above, also leads to questions about the capacity to generalize from a particular explanation to other cases that may not necessarily share these outcomes.[45] A critic might also claim that these concerns are compounded by employing a constructivist theoretical approach, which argues that specific decision-making outcomes are highly dependent on the interests of those involved, and thus necessitates an in-depth study of particular cases in

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[43] King et al., 113. For a conflicting viewpoint on the importance of generalizability see, Larry Griffin and Charles C. Ragin, "Some Observations on Formal Methods of Qualitative Analysis," *Sociological Methods & Research* 23, no. 1 (Aug 1994): 4-21.

[44] Alan Bryman, *Social Research Methods* (New York: Oxford University Press, 2001), 282.

[45] Fiona Devine and Sue Heath, *Sociological Research Methods in Context* (London: Macmillan Press, 1999), 10.

order to understand what these interests may be. Despite these concerns, in what follows I argue that the explanation of the variation in PCP participation is indeed generalizable from the data obtained in Calgary and Toronto to the broader PCP network. This is the thrust of my argument; the rationale becomes clearer throughout the thesis, and I address the specific question of generalizability in more detail at the end of Chapter Four.

Conclusion: What Follows

The remainder of this thesis is directed at generating an explanation for the variation in participation in the Partners for Climate Protection Program. In Chapter Two, I review a selection of the vast literature on transnational networks in general, and transnational municipal networks in particular, and also examine the literature on the Cities for Climate Protection Campaign. I then turn to the equally impressive literature on Canadian urban politics and municipal capacity. I argue that by neglecting questions of municipal capacity, the CCP Campaign literature has missed an important piece to the puzzle of why municipalities participate in this particular network. Indeed, this lack of consideration of the constraints municipalities face leads to the unidirectional explanations of municipal climate change policy, discussed above, that are found throughout this literature. Finally, in this chapter I introduce my constructivist theoretical approach in an effort to unite the seemingly disparate literatures on transnational municipal networking and municipal capacity.

In Chapter Three, I provide a detailed history of the global Cities for Climate Protection Campaign, the Canadian Partners for Climate Protection Program, and municipal climate change policy in Calgary and Toronto. The purpose of this chapter is to provide the context for an explanation of the processes behind the framing of climate

change policies in a particular light. The description of both network and municipal actions relies on the analysis of documentation from both the PCP and its members. The result is an account of nearly 20 years of climate change policy experience that examines not only particular policy objectives at the network and within the two municipalities, but also considers the role of specific individuals in the emergence of municipal climate change as an important issue.

Chapter Four draws on my interview results in addressing the nature of the framing of municipal climate change policy. I argue that by focusing on the benefits of climate change policy solutions and by targeting these solutions at municipal operations, the network and its members effectively eliminate many of the constraints faced in implementing municipal greenhouse gas reductions. Furthermore, in addition to its particular framing of municipal climate change policy, the PCP network positions itself as a source of the technical information that is necessary to implement a successful climate change policy. After establishing these arguments, the remainder of the chapter examines the theoretical components of a constructivist explanation for the variation in PCP participation in Calgary and Toronto, and considers how generalizable these components are to the broader network members.

The final chapter considers the implications of constructing municipal climate change policy in this particular way, and also addresses areas for potential future research on the issue. It is important that social scientific research not only engages in theoretical debates, but that there are practical applications to analyses as well. I argue that the PCP Program should take a more active role in attempting to influence municipal climate change policies. This is the only normative element of my analysis; it comes from the

notion that if cities have a significant negative impact on environmental quality they can also have a significant positive impact on environmental improvement. Recognizing the constraints municipalities face, as well as the interests of municipal actors, is the first step towards realizing these improvements.

Chapter Two

A Constructivist Approach to Transnational Municipal Networks

The Transnational Networking Literature

There is a diverse and expanding body of literature examining the emergence of transnational municipal networks as a response to environmental issues. This work is largely rooted in international relations theory and reflected in research devoted to transnational networks in general. Transnational networks are defined as sites for "regular interaction across national boundaries when at least one actor is a non-state agent or does not operate on behalf of a national government or intergovernmental organization."[1] According to Peters and Pierre, the existence of these networks means "institutional relationships do not have to operate through intermediary levels but can take place directly between, say, transnational and regional levels, thus bypassing the state level altogether."[2] The emergence of transnational networks, then, reflects a shift toward a theoretical and empirical conception of the international system as populated by more than simply state-level actors. According to Hooghe and Marks, this shift reflects the existence of different types of multilevel governance, characterized by the increased diffusion of decision-making authority across multiple levels.[3] This is especially true with respect to the governance of environmental issues such as climate change, where responses are extending vertically on political levels from the local to the global, as well

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[1] Thomas Risse-Kappen, *Bringing Transnational Relations Back In: Non-State Actors, Domestic Structures and International Institutions* (Cambridge: Cambridge University Press: 1995), 3.
[2] Guy Peters and Jon Pierre, "Developments in Intergovernmental Relations: Towards Multi-level Governance," *Policy and Politics* 29, no. 2 (2001): 132.
[3] Liesbet Hooghe and Gary Marks, "Unraveling the Central State, but How? Types of Multi-level Governance," *American Political Science Review* 97, no. 2 (May 2003): 233-243.

as horizontally to incorporate different segments of society.[4] Thus the emergence of transnational networks provides one mechanism to deal with complex, interconnected issues through cross-border means that need not involve national governments.[5]

In the international relations literature there are three prominent explanations of transnational networking.[6] The first is that networks exist to disseminate knowledge based on shared causal beliefs. This argument forms the basis for the concept of the epistemic community, which Haas defines as "a broad coalition of actors...who come to share a common interpretation of the science behind a problem and the broad policy and political requirements in response."[7] In this conception, the complexity and uncertainty of decision-making drives political actors to turn to epistemic communities for information, and this information is then incorporated into a particular policy decision.[8]

The second explanation sees transnational networks as groups that lobby for changes in state behaviour through collective action. Keck and Sikkink refer to these groups as 'transnational advocacy networks,' which they define as non-state "networks of activists, distinguishable largely by the centrality of principled ideas or values in motivating their formation."[9] To see their principles translated into policy, transnational advocacy networks play an active role in the definition of policy problems and accepted

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[4] Sverker C. Jaggers and Johannes Stripple, "Climate Governance Beyond the State," *Global Governance* 9, no. 3 (2003): 394.

[5] Richard Price, "Transnational Civil Society and Advocacy in World Politics," *World Politics* 55 (July 2003): 580.

[6] Michele M. Betsill and Harriet Bulkeley, "Transnational Networks and Global Environmental Governance: The Cities for Climate Protection Program," *International Studies Quarterly* 48 (2004): 474-475.

[7] Peter M. Haas, "Introduction: Epistemic Communities and International Policy Coordination," *International Organization* 46, no.1 (Winter 1992): 1.

[8] Michael R. King, "Epistemic Communities and the Diffusion of Ideas: Central Bank Reform in the United Kingdom," *West European Politics* 28, no. 1 (Jan 2005): 98.

[9] Margaret E. Keck and Kathryn Sikkink, *Activists Beyond Borders: Advocacy Networks in International Politics* (Cornell: Cornell University Press, 1998), 1.

values through various strategies, including information sharing, promoting symbolism, exerting leverage, and demanding accountability from state actors.[10]

A final treatment of transnational networks in the international relations literature suggests they exist to encourage the spread of shared ideas, beliefs and values as an element of global civil society. For example, Wapner argues that transnational environmental networks not only engage in lobbying to change state behaviour, but also "practice world civic politics" through a variety of non-state means as a way of encouraging compliance with values and norms.[11] This civic interaction increases as the international system moves toward different forms of multilevel governance, and thus transnational networks in the form of global civil society play an increasing role in defining and shaping public affairs.[12]

These explanations for the existence of transnational networks are not entirely distinct. Indeed, there is much area for overlap in that all three arguments stress that transnational networks use information, knowledge and values to influence policymaking.[13] In this way, all three reflect the emergence of multilevel governance where different actors, both state and non-state, interact in the formulation and assessment of policy decisions. These three approaches also delineate between state actors making policy decisions and the non-state networks that attempt to influence them. However, conceiving of transnational networks as involving only non-state actors and their influence on the state through the international system ignores the emergence of

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[10] Ibid., 16.
[11] Paul Wapner, *Environmental Activism and World Civic Politics* (Albany: SUNY Press, 1996), 3.
[12] Ibid. For another example of this argument see Ronnie Lipschutz, "Reconstructing World Politics: The Emergence of Global Civil Society," *Millennium: Journal of International Studies* 21, no. 3 (Dec 1992): 389-420.
[13] Betsill and Bulkeley, "Transnational Networks," 476.

other, more complex forms of multilevel governance. As Betsill and Bulkeley point out, it is impossible to characterize transnational networks such as the global Cities for Climate Protection Campaign as non-state.[14] These networks are indeed transnational in nature in that they involve a forum to advance members' interests in the international system—the International Council for Local Environmental Initiatives, in the case of the CCP Campaign[15]—but their membership is also comprised of sub-state actors in the form of municipal governments, which in turn are often dependent on other government actors for funding. In this way, transnational municipal networks represent an emerging form of environmental governance that is simultaneously global and local while also comprised of both state and non-state actors.[16]

The emergence of transnational municipal networks as a means of collectively confronting environmental issues has been an increasingly prominent feature of global environmental governance following the Rio Declaration and the establishment of Local Agenda 21.[17] While participation of cities in the international system was to some extent a "late awakening to multilevel environmental governance" vis-à-vis the other types of networks discussed above,[18] it is now a common response to a number of environmental issues, most notably climate change. In one sense, the coordination of local efforts to deal with climate change is no surprise: no matter what greenhouse gas targets are agreed to at the national or international level, all reductions must be implemented somewhere.

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[14] Ibid. Harriet Bulkeley and Michele M. Betsill, "Rethinking Sustainable Cities: Multilevel Governance and the 'Urban' Politics of Climate Change," *Environmental Politics* 14:1 (Feb 2005): 42-63.

[15] This organization is discussed in more detail in Chapter Three.

[16] Harriet Bulkeley and Michele M. Betsill, *Cities and Climate Change: Urban Sustainability and Global Environmental Governance* (New York: Routledge, 2003).

[17] Overseen by UN Habitat, Local Agenda 21 was established in the Rio Declaration as a program to guide sustainable urban development through knowledge on best practices and grants for policy implementation. Betsill and Bulkeley, "Transnational Networks," 472.

[18] Katarina Eckerberg and Marko Joas, "Multi-level Environmental Governance: A Concept Under Stress?" *Local Environment* 9, no. 5 (Oct 2004): 407.

With the exception of emissions from transport and travel, the bulk of these reductions will occur at the local level.[19] Furthermore, in the Canadian case, even if the current national government *were* to take action on climate change there still exists no direct link between the federal and municipal levels of government that would allow the former to require greenhouse gas reductions by the latter.[20] Thus transnational municipal networks can be conceptualized as efforts to coordinate local actions regardless of national or international positions. In addition to representing the emergence of multilevel forms of environmental governance, then, global networks of local actors also represent multi-*scalar* forms of governance.

There are conflicting explanations for the emergence of this shifting scale of dealing with environmental problems. Some authors argue it stems from a concern that issues like climate change are simply too complex to trace and conceptualize at any level beyond the local.[21] At first glance this may seem to contradict the work of scholars like Haas et al., who claim the complexity of environmental issues means that international agreement is the necessary first step to protecting collective resources.[22] However, the two positions are not necessarily in conflict. Haas et al. argue that the creation of international institutions is necessary as a first step for environmental protection, and that

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[19] By local level I am referring to greenhouse gas emissions under municipal government control. Brent Yarnal, Robert E. O'Connor and Robin Shudak, "The Impact of Local versus National Framing on Willingness to Reduce Greenhouse Gas Emissions: A Case Study from Central Pennsylvania," *Local Environment* 8, no. 4 (Aug 2003): 460.

[20] Benjamin J. Deangelo and L.D. Danny Harvey, "The Jurisdictional Framework for Municipal Action to Reduce Greenhouse Gas Emissions: Case Studies from Canada, the USA and Germany," *Local Environment* 3, no. 2 (1998): 111-136. See also Barry G. Rabe, "Beyond Kyoto: Climate Change Policy in Multi-Level Governance Systems," Forthcoming. One possible exception could be the *Canadian Environmental Protection Act*, though the current federal government has yet to invoke this legislation to require greenhouse gas reductions.

[21] Thomas J. Wilbanks and Robert W. Kates, "Global Change in Local Places: How Scale Matters," *Climatic Change* 43, no. 3 (1999): 606.

[22] Peter M. Haas, Robert O. Keohane and Marc A. Levy, eds., *Institutions for the Earth: Sources of Effective International Environmental Protection* (Boston: MIT Press, 1993).

developing the institutional capacity for implementing these agreements is integral to success. This is especially true with respect to issues like climate change that cut across jurisdictional boundaries. In making the distinction between the agreement and its implementation, then, arguments about the need for overarching international institutions to deal with environmental issues can be reconciled with claims that complexity means a problem is best dealt with at the local level. At the same time, other authors see the shift toward multi-scalar governance occurring not necessarily due to the complexity of the issue, but because interested actors seek to participate on the scale that best allows them to achieve their goals.[23] Of course, this argument begs the question of who these actors are, and what their goals might be.

The literature on transnational municipal networks argues that the networks themselves are driving the growing emergence of collective local environmental actions by seeking to see their principles translated into municipal policy. According to Bulkeley et al., transnational municipal networks serve four principal functions in influencing cities' policy decisions.[24] First, the network represents its members in national and international forums, trying to influence political decisions at these levels that may affect its membership. Second, the network provides a mechanism through which state-level actors can coordinate the implementation of broader policies. Third, the network itself can act as an innovator in introducing particular policy initiatives to its members.

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[23] Erik Swyngedouw, "Neither Global nor Local: 'Glocalization and the Politics of Scale," in *Spaces of Globalization: Reasserting the Power of the Local*, Kevin Cox, ed. (New York: Guilford Press, 1997): 137-166. See also Matthew Paterson and Johannes Stripple, "Singing Climate Change into Existence: On the Territorialization of Climate Policymaking," in *The Social Construction of Climate Change: Power Knowledge, Norms, Discourses*, Mary E. Pettenger, ed. (Burlington, VT: Ashgate, 2007): 149-172.

[24] Harriet Bulkeley, Anna Davies, Bob Evans, David Gibbs, Kristine Kern and Kate Theobald, "Environmental Governance and Transnational Municipal Networks in Europe," *Journal of Environmental Policy & Planning* 5, no. 3 (Sept 2003): 243.

Finally, fourth, the network can offer incentives—information dissemination, knowledge transfer, and consultancy—to encourage potential members to join. Through these functions transnational municipal networks provide a means for increased interaction of local governments, as well as a way for sub-national participants to stake their own position on issues that are traditionally dealt with at the national or international level. By attempting to influence policy-making outcomes, then, these networks represent a site of emerging importance in global environmental governance.[25]

Competing Explanations for CCP Participation

One of the most active and visible transnational municipal networks is the Cities for Climate Protection Campaign. In tune with the literature on transnational municipal networks in general, the literature on the CCP Campaign looks to the actions of the network itself to explain members' participation.[26] One prominent explanatory approach employs discourse analysis in arguing that the network reframes climate change as an issue to be dealt with not only at the global level, but at the local level as well.[27] As Lindseth argues, in this conception the discourse of the network is employed to "construct the local level as the relevant geographical space for climate protection."[28] Thus the CCP Campaign defines climate change as a local issue by focusing on cities as part of the problem and, in turn, defines participation in the network as the most effective

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[25] Charlie Jeffrey, "Sub-national Mobilization and European Integration: Does it Make Any Difference?" *Journal of Common Market Studies* 38 (2000): 1-23.

[26] For example, Bulkeley and Betsill, *Cities and Climate Change*. All references to the network's efforts in this context refer to the actions of staff at the International Council for Local Environmental Initiatives and the Federation of Canadian Municipalities, as these are the organizations that coordinate the Campaign in Canada. See Chapter Three for more.

[27] Xumei Bai, "Integrating Global Environmental Concerns into Urban Management: The Scale and Readiness Arguments," *Journal of Industrial Ecology* 11, no. 2 (Spring 2007): 15-29.

[28] Lindseth, "The Cities for Climate Protection Campaign (CCPC) and the Framing of Local Climate Policy," 326. See also, Gard Lindseth, "Local Level Adaptation to Climate Change: Discursive Strategies in the Norwegian Context," *Journal of Environmental Policy & Planning* 7, no. 1 (March 2005): 61-83.

way of contributing to the solution. While this type of discursive analysis is constructivist in nature in that it argues the problem is defined by the network, the underlying motivations it identifies for the network's actions are clearly rooted in rational choice theory: the CCP 'advertises' itself as the solution to a problem that *it* defines in order to increase membership in its campaign.[29] Since, as I discuss in the next chapter, CCP membership does not require a material commitment by cities, this approach concludes that the network's efforts come from a genuine concern about climate change and a desire to see cities take action. From this approach, then, the explanation for limited CCP Campaign participation comes not from the internal politics of the municipal governments involved, but rather from the conclusion that the network's external efforts have been unsuccessful in framing climate change as an issue to be dealt with at the local level in those cases.[30]

A second explanation for participation recognizes that a drawback of the discursive framing approach is the expectation that simply defining the problem as a local one will lead to action, irrespective of municipal capacity.[31] This conceptualization is rooted in the epistemic communities literature, discussed above, and argues that participation in the CCP Campaign is a type of policy learning. It presumes that municipalities want to act on climate change, but due to the complexity and confusion of the issue they need somewhere to turn for guidance. The network identifies itself as the most rewarding source of this guidance by providing detailed studies on best practices

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[29] Lindseth, "The Cities for Climate Protection Campaign (CCPC) and the Framing of Local Climate Policy," 328.
[30] This argument has been applied to both the Irish and British cases. For the former see, Anna R. Davies, "Local Action for Climate Change: Transnational Networks and the Irish Experience," *Local Environment* 10, no. 1 (Feb 2005): 21-40. For the latter, Elizabeth Wilson, "Adapting to Climate Change at the Local Level: The Spatial Planning Response," *Local Environment* 11, no. 6 (Dec 2006): 609-625.
[31] Wilson, 610.

and examples of actions taken by other CCP members.[32] Participation, therefore, is motivated by the need to increase information access and is explained as a deliberate attempt by participants to adjust municipal goals and shift their behaviour in response to new information.[33] This argument assumes that both the network and its members are comprised of boundedly rational individuals acting in an institutional context that is characterized by uncertainty,[34] and that through the provision and incorporation of new information both can achieve their objectives.[35] Like the framing argument, however, this approach treats network participants like something of a monolith; it assumes cities want to take action and that they are merely looking for guidance on how to go about it. On its own, therefore, this is an insufficient explanation for network participation because it focuses on the external influence of the network while ignoring, again, the potential for different internal characteristics and agency in the municipal governments involved.

The third prominent explanation for network participation argues that the co-benefits of the policy actions proposed by the network are what drive membership. This mirrors much of the literature on climate change policy in general, which makes the distinction between the primary benefits (reduced greenhouse gas emissions) and the secondary, or co-benefits (reduced costs, for example), of climate change actions.[36] Several authors conclude that CCP participation is dependent upon the network's efforts

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[32] ICLEI, "2003 Triennial Report," 13.
[33] Peter A. Hall, "Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain," *Comparative Politics* 25, no. 3 (April 1993): 275-296.
[34] Edella Schlager, "A Comparison of Framework, Theories, and Models of Policy Processes," in *Theories of the Policy Process*, Paul A. Sabatier, ed. (Boulder, CO: Westview Press, 1999): 241.
[35] Paul Sabatier and Hank Jenkins-Smith, "The Advocacy Coalition Framework: An Assessment," in Sabatier.
[36] See, for example, Hauke Von Seht, "Socio-economic Impacts of Local Environmental Policies: An Analysis for the Field of Climate Protection," *Local Environment* 7, no. 1 (2002): 24-25.

to make cities aware of the co-benefits of reducing municipal greenhouse gas emissions,[37] which is accomplished by connecting climate change action to existing urban concerns such as air pollution or budgetary issues.[38] To demonstrate their point, these authors turn to examples such as the Canadian Partners for Climate Protection Program, which encourages cities to participate in the network as the first step to "improving air quality and citizen health," while at the same time making relatively little mention of the importance of reducing greenhouse gas emissions.[39]

The theoretical inspiration for the co-benefits explanation comes from both the framing and policy learning approaches described above. Scholars argue that rather than simply constructing climate change as an issue to be dealt with at the local level, the network seeks to construct the response to climate change as providing co-benefits to those who act. This is accomplished through the type of information the network provides in resources such as case studies, which often identify technical policy responses to climate change that can save municipalities millions of dollars annually.[40] The bulk of the literature on the CCP Campaign concludes that this is the manner through which the network encourages municipal governments to participate. To put it another way, the best way to get cities to participate in a network that addresses climate change

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[37] Rachel Slocum, "Consumer Citizens and the Cities for Climate Protection Campaign," *Environment and Planning A* 36, no. 5 (2004): 763-782. Rachel Slocum, "Polar Bears and Energy-efficient Lightbulbs: Strategies to Bring Climate Change Home," *Environment and Planning D: Society & Space* 22, no. 3 (June 2004): 413-438. Bulkeley and Betsill, *Cities and Climate Change*.

[38] John Byrne, Kristen Hughes, Wilson Rickerson and Lado Kurdgelashvili, "American Policy Conflict in the Greenhouse: Divergent Trends in Federal, Regional, State, and Local Green Energy and Climate Change Policy," *Energy Policy* 35 (2007): 4567. Also, P.D. Fleming and P.H. Webber, "Local and Regional Greenhouse Gas Management," *Energy Policy* 32 (2004): 770.

[39] Federation of Canadian Municipalities, "Quick Action Guide: Municipal Action on Climate Protection," 2005, http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_-_PCP/pcp-quick-action-guide-En.pdf (accessed 30 March 2007), 2.

[40] Henrik Selin and Stacy D. VanDeveer, "Canadian-US Cooperation: Regional Climate Change Action in the Northeast. In *Bilateral Ecopolitics: Continuity and Change in Canadian-American Environmental Relations*, Peter Stoett and Philippe La Prestre, eds. (Burlington, VT: Ashgate, 2006), 102.

seems to be by not necessarily discussing climate change.[41]

However, in arguing that the CCP Campaign defines the co-benefits of taking action, this approach, as it is employed, again looks to the network as an external influence driving its members' participation. The exception, to some extent, is Betsill and Bulkeley's work, which recognizes that the co-benefits approach can be used to incorporate both the external influence of the network *and* the internal characteristics of its members to explain participation.[42] Their work involves case studies of network participants and reaches a number of conclusions about the internal factors necessary for active network participation.[43] However, they too conclude that in the presence of these conditions, the external influence of the network in defining co-benefits is sufficient for an active municipal climate change policy. Given that Toronto has one of the most active municipal climate change policies in the world but remains an inactive Partners for Climate Protection member, this explanation seems insufficient to explain the development of climate change policy in that city. Therefore, there is a need to expand upon this approach, and I argue that this can be accomplished by connecting the literature on transnational municipal networks with research done on municipal capacity.

Municipal Capacity

What is absent from the literature on transnational municipal networks in general and the Cities for Climate Protection Campaign in particular is a corresponding discussion of the urban politics literature.[44] This seems odd, as there is an important link

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[41] Bulkeley and Betsill, *Cities and Climate Change*, 192.
[42] Ibid.
[43] Ibid., 187.
[44] Again, Bulkeley and Betsill's *Cities and Climate Change* is the exception. However, their work concentrates on definitions of urban sustainability and not municipal capacity. Ibid., Chapter Two.

to be made between the two bodies of work. As the international relations literature on concepts such as transgovernmental networking[45] and two-level games[46] recognizes, the state is not a unitary, homogenous actor responding to international forces. In the same way, the members of the CCP Campaign are not uniform actors responding to the external stimulus of the network, but rather are sites with their own internal influences on policy making. With respect to Canadian municipal politics, there is widespread agreement that these internal influences mean that municipal policy can best be explained in terms of the 'growth machine' thesis.[47] According to this argument, municipal governments respond to pressure from interest groups, individuals and local media by using their decision-making capacity to influence the factors of production—infrastructural components such as communications and transportation—that lead to increases in local economic growth and investment.[48] This argument is agency-centric, stressing that the individuals and groups involved in municipal policy making have autonomous decision-making capabilities, and that a rational choice is one that provides positive economic benefits, typically conceived of as an increasing tax base, while minimizing political conflict. At the same time, the urban growth machine thesis also proposes that decisions occur in a structural context where growth is valued,[49] and that

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[45] Anne-Marie Slaughter, "The Real New-World Order," *Foreign Affairs* 76, no. 5 (Sept/Oct 1997): 183-197.

[46] Robert Putnam, "Diplomacy and Domestic Politics: The Logic of Two-Level Games," *International Organization* 42, no. 3 (Summer 1988): 427-460.

[47] James Lightbody, *City Politics, Canada* (Peterborogouh, ON: Broadview Press, 2006), 35.

[48] John R. Logan and Harvey L. Molotch, *Urban Fortunes: The Political Economy of Place* (Berkeley: University of California Press, 1987).

[49] Alan Harding, "North American Urban Political Economy, Urban Theory and British Research," *British Journal of Political Science* 29, no. 4 (1999): 677. George A. Gonzalez, *The Politics of Air Pollution: Urban Growth, Ecological Modernization, and Symbolic Inclusion* (Albany: SUNY University Press, 2005).

municipal actions are therefore constrained by economic pressures for growth and, for politicians, short-term goals such as reelection.[50]

This conception of municipal actors as concerned first and foremost with ensuring local growth may raise questions about the rationale for municipal action on climate change. As Von Seht argues, "many local stakeholders are worried that action on climate change could be very costly and could lead to comparative disadvantages on the global market."[51] Indeed, much of the literature on municipal environmental policy makes a similar claim that actions such as those taken under the auspices of the Partners for Climate Protection Program should be considered surprising in the Canadian context. McAllister, for example, aligns herself with the growth machine thesis in making an implicitly rational choice argument that claims the nature of municipal policymaking prevents local decision makers from responding to environmental issues because it is "not in their immediate self-interest" to do so.[52] Betsill makes a similar claim, arguing that it makes little sense for cities to take action when it is unclear what effect their efforts will actually have on environmental problems.[53] Indeed, in their survey of 392 Canadian municipalities' responses to climate change, Robinson and Gore conclude that many municipal actors simply do not see climate change as a 'priority' concern, in large part because they are apprehensive about mustering the political capacity required to respond to the issue.[54]

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[50] Laura A Reese, "The Planning-Policy Connection in US and Canadian Economic Development," *Environment and Planning C* 24 (2006): 554.
[51] Von Seht, 26.
[52] Mary Louise McAllister, *Governing Ourselves? The Politics of Canadian Communities* (Vancouver: UBC Press, 2004), 172.
[53] Betsill, "Mitigating Climate Change in US Cities," 394.
[54] Robinson and Gore, 112.

In addition to these rational choice approaches there are also a host of institutionalist arguments that would treat Canadian municipal action on climate change as surprising. Lightbody discusses at length how constitutional restrictions mean that Canadian municipalities can be reluctant to respond to emerging issues such as climate change. As is so often said, in Canada's federal system municipalities are 'creatures of the provinces,' their existence and responsibilities determined by provincial statute as per the division of powers in the *Constitution Act, 1867*. The result, as Lightbody discusses, is that municipalities may be open to court challenges on the ground of *vires* if their proposed policies are not explicitly allowed for in provincial statutes.[55] Despite this concern, Deangelo and Harvey conclude that there is consensus that Canadian cities have a legitimate jurisdictional claim to make when it comes to reducing greenhouse gas emissions.[56] Furthermore, given the Canada-wide similarities between the provincial statutes granting municipalities their powers, this jurisdictional claim applies similarly in all provinces, including, for my purposes, Alberta and Ontario.[57]

The issue of jurisdictional legitimacy aside, McAllister points to a number of additional institutional constraints on Canadian municipal environmental policymaking that could be expected to limit action taken on climate change. Foremost is the so-called "two-way squeeze" of offloaded policy responsibilities from provinces and increasing demands from publics that can constrain municipalities' capabilities in terms of both time and finances.[58] In addition to these increasing demands on limited resources is what

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[55] Lightbody, 346.
[56] Deangelo and Harvey, 129.
[57] Sierra Legal, "The Municipal Powers Report: Municipal By-Laws and Best Practices For Community Health and Environmental Protection in Canada," 24 May 2007, http://www.sierralegal.org/reports/municipalpowers_report_may2007.pdf (accessed 31 July 2007), Appendix.
[58] McAllister, 174.

McAllister refers to as the "silos of policy making;" traditional divisions between responsibilities such as land use planning and transportation make it difficult to incorporate emerging environmental concerns that cut across these boundaries into municipal policy making.[59] Robinson and Gore's survey research again confirms that many of these institutional constraints are also barriers to municipal climate change policy. Expanding on McAllister's work, they point to capacity barriers, which include staff time and training as well as budget capabilities, and information barriers in terms of limited knowledge on how to approach the issue, as to why municipalities are reluctant to address climate change.[60] Thus in addition to the barriers discussed from the rational choice perspective outlined above, there are also a number of barriers that institutionalist scholars believe limit Canadian municipalities' ability to enact policy responses to climate change.

Nevertheless, the relatively active climate change policies in cities like Calgary and Toronto show that, despite theoretical arguments to the contrary, such actions do occur in the Canadian context. The scholars of transnational municipal networks, discussed above, would argue that this is because the Partners for Climate Protection Program overcomes the priority, capacity and information barriers preventing cities from taking action. From an empirical perspective these arguments may stand up with the case of Calgary, the most active network member in Canada, but they do not generate an explanation for why Toronto, a city with one of the most active climate change policies in the world, participates little in the network. Moreover, from a theoretical perspective these approaches are limited in that they treat municipalities as largely monolithic actors

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[59] Ibid., 172.
[60] Robinson and Gore, 112-114.

responding to the external influence of a network trying to achieve its own interests. Indeed, these arguments ignore the fact that individual municipal actors themselves have interests, and that these interests likely contribute to the way in which the Partners for Climate Protection Program conceives of municipal action on climate change. The key question, then, is "not whether [climate change] is necessarily 'in' or 'out' as an issue in particular areas, but rather the way in which it is incorporated into strategies and policies locally and how it is used discursively."[61] Thus instead of merely explaining the existence and evolution of an external network dictating how its members should respond to an issue, I argue it is also necessary to consider the internal characteristics of PCP Program members and to conceive of participation in the network as influenced by constructed perceptions of interests *at both levels.*

A Constructivist Approach to Analyzing Participation

My approach to analyzing Partners for Climate Protection participation begins by recognizing that the limitation of the existing literature is its failure to discern between the external influence of the network and the internal characteristics of its member cities. To overcome this limitation, I have argued that there is a need to connect the literature on transnational municipal networking with that on municipal capacity in general. To make this connection, I examine PCP participation through the lens of constructivist theory.

The inspiration for this approach comes from Litfin's work in *Ozone Discourses.* As she argues, "environmental policy is heavily dependent on such cognitive factors as scientific knowledge," and thus by examining the nature of these cognitive factors one

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[61] David Gibbs, Andy Jonas and Aidan While, "Changing Governance Structures and the Environment: Economy-Environment Relations at the Local and Regional Scales," *Journal of Environmental Policy & Planning* 4 (2002): 136.

can generate an explanation for policy outcomes.[62] This approach is rooted in the argument that knowledge—a fundamental understanding of one's role in relation to others[63]—is socially constructed and is employed by actors based on their perceived interests and constraints. Unlike the epistemic communities literature discussed above, in this conception there does not exist a linear relationship between knowledge and policy;[64] rather, political actors draw on the knowledge that they see as most useful for legitimizing their policy decisions.[65] This is accomplished by using discourse—"sets of linguistic practices and rhetorical strategies embedded in a network of social relations"[66] —to frame an issue in a particular light, choosing certain aspects of a perceived reality to define a policy problem, the causal or normative facts surrounding an issue, and/or the solution that should be sought.[67] Through the lens of constructivist theory, then, "interpreting and framing knowledge become crucial political problems as information is mustered to achieve policy objectives,"[68] thus setting the parameters for proposed solutions to public policy problems.

While this approach argues that knowledge is not simply a body of objective fact, it does not mean that actors have *carte blanche* to construct knowledge in whatever form

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[62] Karen Litfin, *Ozone Discourses: Science and Politics in Global Environmental Cooperation* (New York: Columbia University Press, 1994), 3.
[63] Andreas Hasenclaver, Peter Mayer and Volker Rittberger, *Theories of International Regimes*, (Cambridge: Cambridge University Press, 1997), 138.
[64] Reiner Grundmann, "Climate Change and Knowledge Politics," *Environmental Politics* 16, no. 3 (June 2007): 414.
[65] Hasenclaver et al., 155.
[66] Litfin, 3.
[67] Lindseth, "The Cities for Climate Protection Campaign (CCPC) and the Framing of Local Climate Policy," 327.
[68] Litfin, 8.

they deem useful,[69] nor does the discourse used to frame knowledge occur outside of the existing political process.[70] Rather, constructivist theory recognizes that actors face a number of constraints in framing knowledge to reflect their interests. With respect to the Partners for Climate Protection Program, therefore, I expect that the network's discourse reflects not only its own interests in confronting climate change, as many of the scholars who examine the network have argued, but also its members' internal interests. While the member cities participate in the network because the form its knowledge takes provides a source of legitimization for their policy decisions, at the same time, this knowledge is influenced by the nature of the members themselves.[71] In essence, then, the way the PCP Program frames climate change actions externally is determined by municipalities' internal ability to enact policy solutions. The literature on municipal capacity, discussed above, points to a number of perceived constraints on municipalities' internal abilities that would be expected to limit action on climate change. Therefore, I expect the network to frame action on climate change in a way that allows municipalities to enact policy solutions, irrespective of these potential political, economic, or institutional constraints. By examining the network's discourse, the motivations for joining in two major Canadian cities, and the types of actions these cities have taken, I can determine if this is indeed the case.

However, it is somewhat redundant to argue that participation in the PCP Program occurs simply because the network's discourse constructs action on climate change in a way that makes it easy for municipal policymakers to respond. Indeed, if this was the

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[69] Ted Hopf, "The Promise of Constructivism in International Relations Theory," *International Security* 23, no. 1 (Summer 1998): 177.
[70] Litfin, 25.
[71] Grundmann, 416.

extent of my argument it would suffer from the same limitation as the authors discussed above in that it conceives of network participation as unidirectional; in this case, influenced solely by internal factors at the municipal level, leading to the question of why the network even needs to exist in the first place. Thus in addition to the conception of knowledge as legitimizing policy decisions in the discursive sense that Litfin argues,[72] there is also a role for knowledge in an instrumental sense in my explanation.[73] By instrumental knowledge I am referring to the use of particular tools of knowledge in order to achieve policy objectives. This is not the use of knowledge in the strict sense of a rational incorporation of expert advice such as that proposed in the epistemic communities literature. Rather, it aligns with the argument that knowledge is socially constructed in order to achieve interests, while also recognizing that limitations in policymakers' expertise may require them to look for guidance to achieve these interests. With respect to the Partners for Climate Protection Program, then, there is the constructive knowledge of the network, which reflects the interests and constraints faced by its members, and its provision of instrumental knowledge, which reflects the resources it offers its members. I expect the two forms of knowledge influence each other—that is, that the relationship between the two operates as a feedback loop—and that both are necessary to explain network participation.

Investigating the Partners for Climate Protection Program through this constructivist lens is a promising theoretical approach to my research question for a number of reasons. First and foremost, conceiving the network's efforts in terms of a

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[72] For a discussion of this approach see Elizabeth Wilson, "Developing UK Spatial Planning Policy to Respond to Climate Change," *Journal of Environmental Policy & Planning* 8, no. 1 (March 2006): 10.
[73] Hasenclaver et al., 139.

discursive approach in the face of municipal constraints overcomes a limitation in the literature on the global Cities for Climate Protection Campaign by investigating both the external influence of the network and the internal characteristics of its members. Second, this approach also draws from much of the work discussed above, thus building upon the literature on transnational networks and municipal capacity rather than attempting to reinvent it. Keck and Sikkink, for one, argue that transnational advocacy networks both create new knowledge and change the nature and interpretation of policy problems through the selected employment of causal interpretations.[74] I build upon this argument, questioning why networks turn to certain causal interpretations by examining the internal characteristics of their members. There is also obvious overlap with the reframing explanation for Cities for Climate Protection participation, which looks to the network's use of discourse to construct the municipal level as an effective space for confronting climate change.[75] Again, I expand upon the network-centric focus of this argument to question the nature of the framing in this conception. In addition, the constructivist approach can also expand upon the most widespread and persuasive argument for CCP participation, that the network convinces cities of the co-benefits of taking action, by questioning why benefits are defined in certain terms. Finally, constructivist theory is promising because it rejects the traditional distinction between rational choice, institutionalist, and culturalist theoretical approaches, arguing that strategic activity to achieve interests does occur, but that it takes place in an intersubjectively constructed

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[74] Keck and Sikkink, 201.

[75] Lindseth, "The Cities for Climate Protection Campaign and the Framing of Local Climate Policy."

universe.[76] This means there is a role for both agency and structure in my argument, an accommodation that mirrors much of the literature on municipal climate change policies.[77]

Conclusion

There is an obvious disconnect between the literature on the Cities for Climate Protection Campaign and the reality of climate change policy in Calgary and Toronto. As it stands, the literature points to the importance of the transnational network as an external influence explaining the increased prominence of climate change as an issue on the municipal agenda. While arguments about reframing, policy learning and co-benefits may be sufficient to generate an explanation for network participation in an active city like Calgary, on their own these arguments are insufficient in explaining why Toronto, which has one of the most active municipal climate change policies in the world,[78] remains inactive as a member of the Partners for Climate Protection Program. Instead, there is a need to overcome the unidirectional focus of the literature on transnational municipal networking and conceive of the relationship between the network and its members as a two-way street; the reality of both the PCP Program's actions and its members' internal characteristics needs to be considered to explain participation. I will examine this relationship through the lens of constructivist theory, which posits that knowledge is used to legitimize policy decisions based on the interests and constraints of

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[76] Jeffrey Checkel, "The Constructivist Turn in International Relations Theory," *World Politics* 50, no. 2 (1998): 326. Keck and Sikkink, 3.

[77] Ute Collier and Ragnar E. Lofstedt, "Think Globally, Act Locally? Local Climate Change and Energy Policies in Sweden and the UK," *Global Environmental Change* 7, no. 1 (1997): 36. For the importance of agency in climate change policy in general, see the discursive argument found in Karen Backstrand and Eva LovBrand, "Climate Governance Beyond 2012: Competing Discourses of Governmentality, Ecological Modernization and Civic Environmentalism," in Pettenger.

[78] The Climate Group, *Low Carbon Leader: Canada, December 2005*, 2005, http://theclimategroup.org/assets/resources/low_carbon_leader_canada.pdf (accessed 30 July 2007).

decision-makers. In addition to the form of knowledge proposed by the network reflecting the reality of municipal politics, I also expect that there is an instrumental form of knowledge being offered by the network that encourages participation. In Chapter Three I discuss the history of both the Partners for Climate Protection Program and climate change policy in Calgary and Toronto as a first step to examining whether this is the case and to generating an explanation for the discrepancy between network participation in the two cities.

Chapter Three

The Partners for Climate Protection Program in Calgary and Toronto

The Cities for Climate Protection Campaign

The International Council for Local Environmental Initiatives (ICLEI) administers the global Cities for Climate Protection Campaign. ICLEI was established in 1990 when over 200 representatives from 43 countries gathered in New York for *The World Congress for Local Governments for a Sustainable Future.* Today, it is a non-hierarchical network of some 700 municipal governments devoted to "addressing local sustainable development issues while protecting global common goods."[1] ICLEI, whose secretariat is located in the municipal buildings of the City of Toronto, describes itself as an association of local governments and local government organizations, as a movement dedicated to developing sustainable local programs and policies, and as an agency aimed at providing capacity-building tools and technical assistance to its members.[2] In all three forms ICLEI is active on a number of policy issues. It is one of the implementing organizations for Local Action 21, a United Nations initiative for sustainable urban development that emerged from the 1992 Rio Convention and the Agenda 21 declarations made there. The organization also works on water management issues, seeking to improve urban water quality as well as reduce consumption and systems loss. Finally, ICLEI runs an active climate change program in the form of the Cities for Climate Protection Campaign.

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[1] ICLEI, "What We Do," 2008, http://www.iclei.org/index.php?id=742 (accessed 1 March 2008).
[2] Ibid.

ICLEI's work on urban climate change issues began in June 1991 with the formation of the Urban CO_2 Reduction Project. This pilot study was "a research and planning collaborative to develop a comprehensive approach to reducing CO_2 emissions in urban areas,"[3] and involved 14 cities in Europe and North America, including both the City and Metropolitan Area of Toronto.[4] Funding for the actions taken under the auspices of the Urban CO_2 Reduction Project came from a number of sources: the US Environmental Protection Agency; both the City and Metropolitan Area of Toronto; a number of private foundations; and the member cities themselves.[5] Project participants developed inventories of local CO_2 emissions, scenarios for future growth, and local action plans to achieve specific CO_2 reduction targets, and met six times over the course of the project to review each others' findings. Deemed a resounding success by ICLEI at the time of its conclusion in 1993, the Urban CO_2 Reduction Project was the starting point for the broader Cities for Climate Protection Campaign.

In January 1993, ICLEI, along with the United Nations Environment Program, co-hosted the *Municipal Leaders' Summit on Climate Change and the Urban Environment* in New York. The purpose of the summit was to launch the CCP Campaign as a follow-up to the Urban CO_2 Reduction Project. The broader CCP was opened to any city that wished to join; membership in ICLEI itself was not a prerequisite. Indeed, all that ICLEI requires for cities to join the campaign is that municipal councils sign a declaration recognizing the threat of climate change, as well as their intention to address this threat

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3 ICLEI, "1991-1993 Biennial Report," 1993, http://www.iclei.org/documents/Global/Biennial91-93.pdf (accessed 14 October 2007).

[4] The original members of the Urban CO_2 Reduction Project were: Ankara, Turkey; Bologna, Italy; Chula Vista, US; Copenhagen, Denmark; Dade County, US; Denver, US; Hanover, Germany; Helsinki, Finland; Minneapolis, US; Portland, US; Saarbrucken, Germany; Saint Paul, US; and, City of Toronto and Metropolitan Toronto, Canada.

[5] ICLEI, "1991-1993 Biennial Report," 16.

through their day-to-day operations. As outlined at the founding summit, ICLEI's original goal in the CCP Campaign's development was to secure 100 members representing five to ten percent of global anthropogenic greenhouse gas emissions. By this standard, the program has been extraordinarily successful; as of March 2008, CCP membership stands at 691 cities in 31 countries,[6] representing approximately 15 percent of global anthropogenic greenhouse gas emissions.[7]

In addition to securing increasing membership, Bulkeley and Betsill point to three other distinct objectives of the CCP Campaign.[8] The first is building municipal capacity to reduce greenhouse gas emissions. By participating in the campaign, cities commit to progressing through the network's five milestones: 1) Conduct a baseline emissions inventory and forecast; 2) Adopt an emissions reduction target for the forecast year; 3) Develop a local action plan; 4) Implement policies and measures contained in the local action plan; and, 5) Monitor and verify results.[9] To aid cities in completing the milestones, ICLEI provides assistance in what it refers to as "three discrete categories."[10] The first is inventory assistance. In conjunction with Ontario firm Torrie Smith Associates, Inc., ICLEI has developed "user-friendly, 'point and click'" software to aid cities in the quantification of greenhouse gas emissions, and even offers to conduct entire inventories on behalf of member cities.[11] The second type of assistance comes in the form of help with identifying and quantifying areas for greenhouse gas reductions. ICLEI provides local governments with this type of information through case studies,

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[6] ICLEI, "CCP Participants," 2008, http://www.iclei.org/index.php?id=809 (accessed 1 March 2008).
[7] ICLEI, "About CCP," 2008, http://www.iclei.org/index.php?id=800.html (accessed 1 March 2008).
[8] Bulkeley and Betsill, *Cities and Climate Change*, 51-53.
[9] ICLEI, "How it Works," 2007, http://www.iclei.rog/index.php?id=810 (accessed 15 October 2007).
[10] ICLEI, "CCP Resources," 2007, http://www.iclei.rog/index.php?id=1247 (accessed 15 October 2007).
[11] Ibid.

networking, program workshops and reports on best practices in other campaign member cities. The third category is what ICLEI refers to as policy assistance. Here the organization seeks to provide municipalities with guidance on procurement policies, sample resolutions, and broader policy frameworks to reduce greenhouse gas emissions.

Another objective of the CCP Campaign is to provide a rationale for municipal action on climate change. Bulkeley and Betsill refer to this objective as seeking to "enhance local accountability for greenhouse gas emissions reductions,"[12] but it can be seen more accurately, at least from ICLEI's perspective, as providing the impetus for CCP participation. The nature of the milestone process and the type of assistance ICLEI provides makes it quite clear that the objective of the CCP is the quantification and reduction of urban greenhouse gas emissions vis-à-vis a baseline year. Indeed, ICLEI's objective is to assist cities in this quantification process so that "the inventory and forecast provide a benchmark against which the city can measure progress."[13] As I discussed in Chapter Two, to encourage progress in the CCP Campaign the network stresses the co-benefits of implementing climate change mitigation measures, connecting action on climate change to areas of preexisting municipal policy concern.[14] These areas can include energy use, land development, air and water quality, and a number of other issues confronting municipalities. In addition to co-benefits in this non-material sense, the CCP also stresses the material benefits, often in the form of financial savings, of taking action on climate change. For example, ICLEI's case studies focus almost entirely on the employment of so-called 'no regrets measures'—such as replacing traffic signal

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[12] Bulkeley and Betsill, *Cities and Climate Change*, 53.
[13] ICLEI, "How it Works."
[14] I have made a similar argument in a previous paper. Chris Fay, "Thinking *Locally*, Acting *Globally*: Lessons to Learn from the Cities for Climate Protection Campaign," Paper Presented at the 2007 New York State Political Science Association Conference, Poughkeepsie, NY, April 21, 2007.

light bulbs with high-efficiency light emitting diodes—that require a sizeable investment in the initial implementation, but that can save cities millions of dollars annually over their lifespan.[15]

The final CCP objective is to represent municipal actors in national and international climate change negotiations. ICLEI has participated in each Conference of the Parties to the United Nations Framework Convention on Climate Change, and sends delegates to a variety of international sustainable development conferences. The purpose of participation is to call attention to the climate change mitigation efforts taken by CCP Campaign members, as well as to demonstrate that local action is necessary to help achieve both national and international greenhouse gas reduction targets.[16] Bulkeley and Betsill are quick to point out that while the CCP in this context appears to have little effect on the international climate change regime, the vast increase in network membership in recent years, as well as the proliferation of municipal actions to reduce greenhouse gas emissions, do seem to indicate some level of success in at least publicizing the urban connection to climate change.[17]

Canada's Partners for Climate Protection Program

When the CCP Campaign was first developed in 1993, ICLEI administered the program from its offices in Toronto's City Hall. In the mid-1990s, however, the process of decentralizing the campaign began with the transfer of responsibility for the program to a number of regional and national organizations. Today, the ICLEI secretariat works in tandem with regional CCP campaigns in Europe, Asia and Latin America, and national

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[15] Selin and VanDeveer, 102.
[16] ICLEI, "2003 Triennial Report," 12.
[17] Bulkeley and Betsill, *Cities and Climate Change*, 54.

CCP campaigns in Australia, Canada, Finland, India, Italy, Mexico, the Philippines, South Africa, the United Kingdom and the United States. In Canada, the Federation of Canadian Municipalities (FCM) administers the program in conjunction with ICLEI and, as I have already mentioned, the campaign goes by the name of the Partners for Climate Protection (PCP) Program. Though the titles differ, the two programs are synonymous; the 155 member cities in the Canadian PCP Program,[18] which together represent 60 percent of Canada's population, are also members of the global CCP Campaign.

The Partners for Climate Protection program was established in 1999 with the combining of ICLEI's Canadian CCP Campaign efforts and a Federation of Canadian Municipalities' initiative called the 20 percent club. This latter program was developed in 1995 with the goal of encouraging member cities to reduce greenhouse gas emissions generated by their municipal operations by 20 percent below 1988 levels within ten years of joining the program. To do so, FCM concentrated its efforts on getting elected officials to commit to the 20 percent target, but did not actively engage municipal staff in the mechanics of how to achieve emissions reductions.[19] The result was a program that provided little in the way of guidance to municipalities following their initial commitment to the 20 percent reductions. As described above, one of the objectives of the global CCP Campaign is to provide this guidance through municipal capacity building. Thus the impetus behind the emergence of the Partners for Climate Protection Program in 1999 was the recognition of the potential for cooperation between the existing ICLEI campaign and the FCM 20 percent club, and the objective of harmonizing the

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[18] As of March 2008. FCM, "About Partners for Climate Protection," 2008, http://www.sustainablecommunities.fcm.ca/Partners-for-Climate-Protection/ (accessed 1 March 2008).
[19] Causley.

delivery of information on best practices and expertise to the member cities.[20] The resulting PCP Program saw FCM move to a more balanced approach that engages both politicians and municipal staff in an effort to reduce municipal greenhouse gas emissions.

Participation in the Partners for Climate Protection Program is identical to that of the CCP Campaign. As with the global network, to join the Canadian program municipalities must submit a council resolution to FCM, a sample version of which is available on the organization's website.[21] Municipalities must also identify one liaison at the staff level and one at the government level, the purpose of which is to maintain active ties between FCM, the PCP network and its members. Municipalities then proceed through the five milestones of inventorying, setting targets, and developing, implementing, and monitoring local action plans to reduce their emissions. The PCP milestone process, however, is twofold. Member cities not only commit to reducing their own municipally-generated greenhouse gases—what FCM refers to as the 'corporate milestone' process—but also to reducing other emissions that occur at the urban level—the 'community milestone' process in FCM parlance. Though FCM is quick to point out the greater potential for overall greenhouse gas reductions through the community milestones, cities are encouraged to undertake the corporate milestone process first for reasons ranging from demonstrating leadership and setting a community-wide example to the greater complexity of developing community reduction targets.[22] Of the 155 PCP member municipalities, only three—Edmonton, Calgary and Whistler,

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[20] FCM, "Partners for Climate Protection, Annual Report 2004-2005," 2005, http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_-_PCP/PCP_Annual_Report_2004-2005_Eng.pdf (accessed 30 March 2007), 11.

[21] FCM, "Council Joining Resolution," 2007, http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_-_PCP/pcp-council-resolution_to_join.pdf (accessed 15 October 2007).

[22] FCM, "PCP A Five-Milestone Framework," 2007, http://www.sustainablecommunities.fcm.ca/Capacity_Building/Energy/PCP/PCP_Milestone.asp (accessed 26 July 2007).

BC—have completed corporate Milestone Five, and, as can be seen in Table One, the vast majority have completed none of either the corporate or community milestones.

Table One – PCP Member Milestone Progress (# of cities)

	Corporate	Community
No Milestone	92	88
Milestone 1	22	30
Milestone 2	13	14
Milestone 3	19	15
Milestone 4	6	7
Milestone 5	3	1

Source: FCM, "PCP Members and Milestone Status," 2008, http://www.sustainablecommunities.fcm.ca/Partners-for-Climate-Protection/MilestoneStatus.asp (accessed 2 March 2008).

The Federation of Canadian Municipalities' objectives in encouraging municipalities to participate in the PCP Program are much like those of ICLEI with the CCP Campaign. FCM views the PCP Program first and foremost as "a national capacity-building network that supports municipal efforts to reduce greenhouse gas emissions."[23] In this vein, FCM seeks to provide technical support and resources for municipalities planning to implement emissions reductions. These include the same software used by ICLEI to quantify and create inventories of municipal greenhouse gas emissions, a 'PCP toolkit' comprised of quick actions to reduce emissions that come from case studies of Canadian municipalities[24] as well as a subscription to the PCP e-bulletin, and access—contingent on a successful application—to FCM's Green Municipal Fund, a $550 million Government of Canada endowment fund that "offers resources to address the sustainable community development needs of municipal governments."[25]

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[23] FCM, "Partners for Climate Protection, Annual Report 2004-2005," 11.
[24] FCM, "Quick Action Guide: Municipal Action on Climate Protection," 2005, http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_-_PCP/pcp-quick-action-guide-En.pdf (accessed 30 March 2007).
[25] FCM, "About the Green Municipal Fund," 2007, http://www.sustainablecommunities.fcm.com/GMF/default.asp (accessed 26 July 2007).

Municipalities are also encouraged to take action under the auspices of the Partners for Climate Protection Program because of the co-benefits provided by participation. In *The Business Case for Cutting Greenhouse Gas Emissions from Municipal Operations*, FCM points to quantitative benefits such as energy and operations cost savings, improved air quality, and municipal asset renewal, and qualitative benefits such as a better quality of life, increased employee morale, and a better overall working environment as motivations for PCP participation.[26] PCP Program members are also encouraged to apply for national recognition of their actions through FCM's Sustainable Community Awards program, and the most active members are lauded by FCM as models for municipal action on climate change in case studies, reports, press releases, and numerous FCM publications.

Calgary and the PCP Program

One of these extremely active Partners for Climate Protection members is the City of Calgary. Indeed, when Calgary reached corporate Milestone Five in 2005 it was the first Canadian city to do so. For the casual observer this may seem a contradiction; Calgary is the corporate base for Alberta's oilpatch, one of the country's highest greenhouse gas emitters. Furthermore, according to FCM, at 9.7 hectares of land for each resident the City of Calgary has the largest ecological footprint of Canada's 20 most populated cities.[27] Moreover, with almost one million residents, Calgary's population

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[26] FCM, *The Business Case for Cutting Greenhouse Gas Emissions from Municipal Operations*, June 2003, http://www.sustainablecommunities.fcm.ca/files/PDF/PCP_Business_Case_En_FINAL.pdf (accessed 30 March 2007).

[27] FCM, *Ecological Footprints of Canadian Municipalities and Regions*, January 2005, http://www.anielski.com/Documents/EFA%20Report%20FINAL%20Feb%202.pdf (accessed 16 October 2007).

density of 1282 people/km^2 is one of the lowest of all Canadian cities,[28] a figure that is only compounded by the 12.4 percent increase in the city's population over the previous census period,[29] and the "low-density suburban development" that the municipal government itself admits characterizes Calgary's growth pattern.[30] However, as a recent Globe and Mail article put it, while "Canada's oil capital may be damned as an eco-villain," the City of Calgary is "making radical cuts in greenhouse emissions to become 'the greenest city in the world.'"[31]

While there is certainly an element of hyperbole in the Globe and Mail's statement, there is no questioning that the City of Calgary remains the most advanced member of FCM's Partners for Climate Protection Program to date. The level of the city's engagement with the program can be seen clearly in Calgary's most recent climate change action plan, which states, "the city's membership and commitment to FCM-PCP bestows the responsibility to reduce local GHG emissions and improve the local environment and quality of life."[32] These efforts to reduce local greenhouse gas emissions began in 1993 when Calgary City Council approved the development of the city's first climate change action plan. This was largely the initiative of then-newly elected Alderman Bob Hawkesworth, who had a long history of personal interest in urban

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[28] City of Calgary, *State of the Environment Report, 2006,* 2006, http://www.calgary.ca/docgallery/bu/environmental_management/2002_state_of_the_environment_report.pdf (accessed 1 August 2007), 34.
[29] Statistics Canada, "2006 Community Profiles, Calgary," 2006, http://www12.statcan.ca/english/census06/data/profiles/community/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4806016&Geo2=PR&Code2=48&Data=Count&SearchText=calgary&SearchType=Begins&SearchPR=01&B1=All&Custom= (accessed 16 October 2007).
[30] City of Calgary, *State of the Environment Report, 2006*, 31.
[31] Chris Turner, "The Secret Greening of Calgary," *Globe and Mail*, 15 September 2007, F1, Montreal Edition.
[32] City of Calgary, *Calgary Climate Change Action Plan Target 50: The City of Calgary Corporate and Community Outlook on Climate and Air Quality Protection*, July 2006, http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_-_PCP/PCP_Members_Inventory_Action_Plans/calgary_action_plan.pdf (accessed 26 July 2007), 23.

environmental issues and persuaded his Council colleagues of the need for Calgary to develop a climate change policy. In 1994 and 1995, respectively, Calgary also joined ICLEI's CCP program and FCM's 20 percent club. However, neither the Council directive nor Calgary's membership in the two programs resulted in the development of any municipal actions on climate change for the next few years. One of the reasons for this was the City of Calgary's obvious concern over the costs of climate change actions. Calgary's submissions to Canada's Climate Change Voluntary Challenge and Registry Program, which the city joined in February 1996, make this point clear:

> "The City is prepared, *within reason*, to help the federal and Alberta governments' initiatives aimed at abating CO_2 emissions...the means and options open to The City, however, must meet the criteria of being *economically feasible, cost-effective*, energy-saving and reduce Corporate-generated CO_2 emissions."[33]

In addition, the difficulties of data collection were a tremendous constraint on the establishment of a climate change policy. Because greenhouse gas emissions had to be tabulated manually, City of Calgary documents from the period claimed it took approximately three years of man-hours to determine one year of emissions data.[34] Thus while much posturing was made in the form of Council statements and program memberships, during the 1990s Calgary made little effort to actually reduce its greenhouse gas emissions or to develop a comprehensive climate change policy.

This changed with the emergence of the Partners for Climate Protection Program in 1999. At the time, Calgary was implementing a new environmental management

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[33] City of Calgary, "Action Plan: Part 1: Baseline Inventory," 26 January 1998, http://www.ghgregistries.ca/registry/out/C0010-26JAN98-PLN.PDF (accessed 31 July 2007). Emphasis added.

[34] City of Calgary, *The City of Calgary 2003 Corporate Greenhouse Gas Emissions Inventory*, January 2005, http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_-_PCP/2003_Corp_Emissions_Report_PCP_ICLEI.pdf (accessed 26 July 2007), 2.

system, dubbed EnviroSystem, in an attempt to become the first North American municipality to achieve ISO-14001 registration.[35] The renewed focus on climate change through the PCP Program, as well as environmental issues as part of EnviroSystem, led Alderman Hawkesworth to again push Council to take action on Calgary's greenhouse gas emissions. In June 2000, at Hawkesworth's urging, Council directed the City administration to develop a municipal climate change program for Calgary. In November 2000 the administration established the Climate Change Project Team, housing it within the city's recently established Environmental Management Business Unit, but also staffing it with employees from the Corporate Strategies and Economics department, as well as the Office of Corporate Engineering. The mandate of the project team was first, as Council's directive put it, to determine Calgary's greenhouse gas emissions, and second, to examine ways for the city to reduce its corporate emissions to six percent below 1990 levels by 2012.[36]

While the administration worked to develop the climate change plan, 2001 was an important year in terms of support for city climate change policy. In September of that year Calgary Transit unveiled its much-lauded 'Ride the Wind' program, a unique partnership with the city-owned power utility Enmax that involves the purchase of wind-generated electricity equivalent to the electricity consumed by Calgary's light rail transit system. Just one month later was the 2001 municipal election, which not only saw Alderman Hawkesworth returned to office, but also the rise of Dave Bronconnier, a newly elected Mayor with an expressed commitment to municipal action on climate

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[35] ISO-14001 is a series of standards and guidelines intended to be used as an environmental management system for organizations, and open to third party audit. See www.14000.org for more details.
[36] City of Calgary, *State of the Environment Report, 2002*, 2002, http://www.calgary.ca/docgallery/bu/environmental_management/2002_state_of_the_environment_report.pdf (accessed 1 August 2007), 15.

change. In January 2002, just months into Mayor Bronconnier's first term, City Council approved the *Carbon Dioxide Emissions Abatement Action Plan* as put forward by the Climate Change Project Team. As directed, the plan committed Calgary to a reduction in corporate greenhouse gas emissions of six percent below 1990 levels by 2012. It organized Calgary's corporate emissions into five categories: 1) buildings; 2) city fleet vehicles; 3) streetlights; 4) water and sewer operations; and 5) other (including waste materials, one-time occurrences, and travel by city employees). Of these categories, the plan proposed the immediate establishment of three programs to reduce Calgary's corporate greenhouse gas emissions.

The first of these proposals was the Energy Performance Contracting (EPC) Program. The EPC was a novel way of securing financing in order to improve the energy efficiency of city buildings. It directed the City of Calgary to form partnerships with private renovation firms in order to retrofit city properties, and dictated that the companies involved would be paid using the money the City saved on energy costs over a ten-year term. At the time of the proposal in 2002, it was estimated that the EPC Program would save the City of Calgary some $7 million per year,[37] and when the initiative ended in 2004, Calgary had signed $20 million worth of agreements to retrofit 226 municipal buildings.[38] The second proposed program was the EnviroSmart Streetlight Retrofit. This proposal called for Calgary to replace 37,500 streetlights around the city with lower wattage bulbs, and upon completion was expected to save the city $1.7 million in energy costs per year.[39] Finally, the third proposal was the LED Traffic Signal Replacement Program. Completed in 2005, this program saw the

[37] City of Calgary, *The City of Calgary 2003 Corporate Greenhouse Gas Emissions Inventory*, 7.
[38] The Climate Group, 12.
[39] City of Calgary, *The City of Calgary 2003 Corporate Greenhouse Gas Emissions Inventory*, 7.

replacement of traffic signal incandescent light bulbs with high-efficiency light emitting diodes, saving the City $670,000 annually, with the expectation that project costs would be recouped within five years.[40]

Given these examples of efforts initiated under Calgary's first climate change plan it is clear that financial savings were a significant motivation behind acting. Indeed, the early success of these programs in terms of cost savings led to Calgary's recommitment to its six percent reductions target in its *2004 Climate Change Action Plan.* While the 2004 initiative was short on new policy proposals, it did herald the introduction of a new City of Calgary greenhouse gas reporting system. Developed with technical assistance from the PCP Program—which also played a major role in Calgary's 2002 plan through the provision of software to quantify greenhouse gas emissions —Calgary's greenHouse gas Emissions and Abatement Tracking system (HEAT) led the City to commit to the annual monitoring of corporate greenhouse gas emissions. HEAT was referred to as "a hot item [because of] its ability to communicate with the accounting departments of City-owned buildings,"[41] and its introduction meant more up-to-date corporate emissions data and thus a more accurate reflection of the effectiveness of Calgary's efforts to reduce greenhouse gas emissions. Moreover, the introduction of annual monitoring and reporting of emissions data also meant that the City of Calgary had reached the end of the Partners for Climate Protection corporate milestone process. Now able to monitor its annual municipal emissions reduction results and report them to FCM, in May 2005 Calgary applied for and became the first Canadian city to reach the PCP Program's corporate Milestone Five.

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[40] Ibid.
[41] Sonia Kuczaj, "Calgary's Big Science Project," *Calgary Herald,* 6 June 2005, ME 08.

Calgary's climate change mitigation efforts did not end with the achievement of PCP corporate Milestone Five in 2005. In July 2006 the City released its most recent climate change action plan, *Target 50*, which called for a significant increase in the reduction of greenhouse gas emissions from the six percent below 1990 levels by 2012 to a new target of 50 percent by the same year. In the introduction to *Target 50*, Mayor Bronconnier draws attention to Council's support for the increased reductions level, going so far as to refer to the City's ambitious new target as his "vision for Calgary."[42] Besides political support, an additional force driving the new plan was the now-apparent success of earlier greenhouse gas reduction efforts. As Table Two shows, by 2004

Table Two – City of Calgary Corporate GHG emissions by Source (1990 to 2004)

Emission Source	1990 (kt)	2004 (kt)	1990-2004 change (%)
Buildings	196.8	181.4	-7.8
Fleet	90.4	94.1	+4.1
Streetlights	73.2	62.5	-14.6
Water and Sewer Operations	96.0	99.6	+3.7
Other	4.8	4.7	-2.1
TOTALS	461.2	442.3	-4.1

Source: City of Calgary, *Calgary Climate Change Action Plan Target 50*, 19.

Calgary had achieved a 4.1 percent reduction in its corporate greenhouse gas emissions relative to 1990 levels. There is, of course, a significant leap to be made between four percent and 50 percent; this gap is bridged by a recent City of Calgary agreement with Enmax, the city-owned energy utility behind the 'Ride the Wind' program, whereby 75 percent of Calgary's corporate power needs will be provided through wind-generated electricity. This agreement, which came into force in September 2007, makes the City of

[42] City of Calgary, *Calgary Climate Change Action Plan Target 50*, 4.

Calgary not only the largest municipal government purchaser of so-called 'green energy', but also the single largest consumer of wind-generated electricity in Canada.[43]

Given Calgary's past actions and future targets, it is clear that the City is making significant efforts to reduce its corporate greenhouse gas emissions. Noticeably absent from the discussion, however, have been efforts to implement corresponding community emissions reductions. This question of community reductions is an important one vis-à-vis municipal climate change policies because of the vast difference between corporate and community emissions levels; in Calgary's case, corporate emissions account for just three percent of total greenhouse gas emissions within the City's boundaries.[44] As Table Three shows, though Calgary had reduced its corporate emissions by four percent below 1990 levels as of 2004, over that same time the city's community emissions have

Table Three – City of Calgary Community GHG emissions by Source (1990-2003)

Emission Source	1990 (kt)	2003 (kt)	1990-2004 change (%)
Electricity	5435	7153	31.6
Natural Gas	2884	3846	33.4
Vehicles	3849	4941	28.4
Waste Disposal	307	443	44.3
Urban Forest	-13	-13	0
TOTALS	12462	16370	31.4

Source: City of Calgary, *Calgary Climate Change Action Plan Target 50*, 9.

increased by more than 31 percent. This is not to say that the City of Calgary has taken no action on community emissions. Indeed, Calgary has achieved PCP Program community Milestone Four, and *Target 50* proposes community emissions reduction targets of 20 percent below 2005 levels by 2020, and 50 percent by 2050. However, how Calgary plans to meet these objectives is not clear. As the *Target 50* plan also states,

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[43] Ibid., 15.
[44] City of Calgary, *State of the Environment Report, 2002*, 6.

"currently there is no existing community climate change plan for The City of Calgary."[45] In large part, the City claims that this is because it "believes that for [Calgary] to demonstrate leadership it must reduce its own greenhouse gas emissions before asking the community and business to follow its example."[46] Thus in one sense, Calgary's climate change policies and participation in the PCP Program can be conceived of as the first step in a more comprehensive strategy of urban climate change mitigation. In another sense, however, these actions can be conceived of as reflecting how the PCP Program's constructs municipal climate change policy, a discussion I return to in Chapter Four.

Toronto and the PCP Program

Like the City of Calgary, the City of Toronto has also been extremely active in reducing its municipal greenhouse gas emissions. Today, the amalgamated City of Toronto is the largest municipality in Canada, home to 2.5 million residents.[47] Prior to amalgamation, both the former City and Municipality of Metropolitan Toronto were pilot members of ICLEI's Urban CO_2 Reduction Project, the predecessor to the global Cities for Climate Protection Campaign.[48] The trigger for their participation in the pilot project was Toronto's hosting of a 1988 conference entitled *The Changing Atmosphere: Implications for Global Security*, organized by the United Nations Environment

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[45] Ibid., 41.
[46] City of Calgary, *State of the Environment Report, 2002*, 14.
[47] Statistics Canada, "2006 Community Profiles, Toronto," 2006, http://www12.statcan.ca/english/census06/data/profiles/community/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=3520005&Geo2=PR&Code2=35&Data=Count&SearchText=toronto&SearchType=Begins&SearchPR=35&B1=All&Custom= (accessed 20 October 2007).
[48] The Toronto area had a two-tier municipal government, comprised of both the City and Metropolitan Area of Toronto, until the Province of Ontario's forced municipal amalgamation in 1998. All references to Toronto from this point refer to the City of Toronto, either pre- or post-amalgamation depending on the time period.

Programme, the World Meteorological Association, and Environment Canada. One of the conference's attendees was Toronto City Councilor Tony O'Donohue, who found himself "deeply concerned" with the conference's message of the risks associated with global warming.[49] O'Donohue was a "senior council member with considerable influence," as well as considerable interest in urban environmental issues,[50] and following the conference he turned to convincing his colleagues of the necessity of developing an urban response to climate change in the City of Toronto. The result was the establishment of Toronto's Special Advisory Committee on the Environment, a collection of local scientists and municipal leaders interested in urban climate change issues. In 1990, the advisory committee proposed three significant policy initiatives that were shepherded through council with O'Donohue's help: 1) the adoption of a corporate CO_2 reduction target of 20 percent below 1990 levels by 2005; 2) the establishment of an atmospheric fund to pay for emission reduction demonstration projects; and 3) the creation of an energy efficiency office to improve energy consumption in municipal buildings.[51] The result, as several authors have commented, is that Toronto was the first city in the world to implement a municipal climate change policy.[52]

Two programs in particular played a key role in Toronto's climate change policy during the 1990s. The first was the Toronto Atmospheric Fund (TAF), created as a result of the advisory committee's 1990 recommendation. At the time of its inception, the TAF was a $23 million endowment fund created with money from City of Toronto land sales and mandated to improve local air quality and energy efficiency by educating the public,

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[49] W. Henry Lambright, Stanley A. Changnon and L.D. Danny Harvey, "Urban Reaction to the Global Warming Issue: Agenda Setting in Toronto and Chicago," *Climatic Change* 34 (1996): 465.
[50] Ibid.
[51] Ibid., 466-467.
[52] Ibid., 467. See also The Climate Group, *Low Carbon Leader*, 11.

fostering community, government and academic partnerships, and facilitating science and technology development. The fund, which is still active today, provides financing of approximately $1.2 million annually in the form of grants and loans for projects that meet its mandate, supporting everything from green roofs for public schools to car-sharing programs.[53] The second key program was the City's Better Buildings Partnership. Created in 1996, this public-private partnership is administered by the City of Toronto's Energy Efficiency Office and links building owners with energy management firms to initiate comprehensive renovations aimed at improving energy efficiency. The Better Buildings Partnership also provides funding for renovations in the form of loans that can be repaid with future energy savings, as well as zero percent interest loans for non-profit organizations hoping to improve their energy efficiency.[54] To date, the Partnership has financed approximately $80 million in energy retrofits on Toronto buildings.[55]

While these two programs were key pillars of Toronto's climate change policy in the 1990s, one of the greatest potential threats to the City's greenhouse gas reduction efforts came in 1998. On January 1 of that year provincial legislation came into force mandating the amalgamation of seven municipalities—including the City and Metropolitan Municipality of Toronto—into the City of Toronto. With the then Conservative provincial government's withdrawal of funding support for a broad range of municipal infrastructure and services, one of the major concerns about the amalgamation was that the new City would suffer from a restricted ability to confront a broad range of

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[53] City of Toronto, "Toronto Atmospheric Fund," 2007, http://www.toronto.ca/taf/index.htm (accessed 21 October 2007).
[54] City of Toronto, *Climate Change, Clean Air and Sustainable Energy Action Plan: Moving From Framework to Action, Staff Report*," 13 June 2007, http://www.toronto.ca/legdocs/mmis/2007/pe/bgrd/backgroundfile-4982.pdf (accessed 11 August 2007).
[55] Ibid.

policy issues, including climate change. However, as DeAngelo and Harvey discuss, this was not the case; amalgamation actually put considerably more jurisdictional control over greenhouse gas emissions in the hands of the City of Toronto.[56] Indeed, despite the increased pressure on Toronto's new municipal government to provide funding for programs that were previously financed by the province, the City of Toronto's climate change policy continued very much business as usual following the amalgamation. This meant that the TAF and the Better Buildings Partnership continued to drive Toronto's climate change actions, while at the same time a number of more specific policy measures—a bylaw prohibiting excessive car idling, for example—were adopted by Toronto City Council.

The first real indication of the results of the City of Toronto's climate change policy came with the release of a 1999 study entitled *The City of Toronto's Corporate Energy Use and CO_2 Emissions, 1990-1998: A Progress Report.* This document was the first quantification of Toronto's greenhouse gas emissions for the period, and determined that the City had reduced its energy consumption and corporate emissions by ten and five percent respectively since the establishment of its 1990 emissions reduction target.[57] A following report in 2003 updated the 1999 data and also proposed energy efficiency and emissions reductions measures for a number of areas that would become central to the City of Toronto's future corporate emissions objectives.[58] That same year, the City of Toronto's climate change policy received an important boost in the form of Mayor David Miller's election. Miller had made climate change one of the pillars of his election

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[56] DeAngelo and Harvey, 125.
[57] Qtd. in City of Toronto, "Moving Towards Kyoto: Toronto's Emissions Reductions 1990-1998, Technical Report," 22 April 2003, http://www.toronto.ca/taf/pdf/moving_towards_kyoto_techreport.pdf (accessed 11 August 2007), 1.
[58] Landfill methane gas capture, for example. Ibid., 2.

campaign and had repeatedly expressed a desire to develop a comprehensive climate change action plan for the City of Toronto. Indeed, following his 2003 election Miller was appointed inaugural Chair of the World Mayors' Council on Climate Change, a global network of municipal politicians housed within ICLEI. During his tenure as Toronto's Mayor, Miller has also been an active participant in several major international climate change conferences, and has referred publicly to a successful climate change policy as "critical to the future of Toronto," announcing his intention to make the issue one of his central policy concerns during his first and recently-elected second terms in office.[59]

This explicit political support has no doubt been an important driving force behind the recent increase in activity in Toronto's climate change policy. The 2003 release of greenhouse gas emissions data for 1990-1998 concluded that the City of Toronto had achieved a 30 percent reduction below 1990 levels in its corporate greenhouse emissions, well above its 1990 commitment of a 20 percent reduction by 2005. In response to this achievement, shortly after his election Mayor Miller committed Toronto to a new corporate goal of reducing emissions by 60 percent by 2010.[60] As one step toward this goal, in 2004 Miller pushed Toronto City Council to approve the Energy Retrofit Program, $30 million worth of investments designed to improve energy efficiency and reduce greenhouse gas emissions in City-owned facilities. Other major efforts approved by Council during Mayor Miller's tenure have included a comprehensive strategy to capture and generate electricity with methane gas emissions at

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[59] City of Toronto, "Mayor David Miller's Inaugural Address," 5 December 2006, http://www.toronto.ca/mayor_miller/speeches/inaugural_address06.htm (accessed 21 October 2007).

[60] City of Toronto, *Greenhouse Gases and Air Pollutants in the City of Toronto: Toward a Harmonized Strategy for Reducing Emissions,* June 2007, http://www.toronto.ca/taf/pdf/taf-inventory-0606.pdf (accessed 11 August 2007).

Toronto's landfills, and the development of a $180 million district energy system that uses water pumped from Lake Ontario to cool a large area of downtown Toronto.

The culmination of nearly two decades of climate change policy in the City of Toronto is the *Climate Change, Clean Air and Sustainable Energy Action Plan: Moving from Framework to Action.* Approved by Toronto City Council on July 15, 2007, the *Action Plan* includes three separate community greenhouse gas emissions reduction targets from 1990 levels for the City of Toronto: 1) six percent by 2012; 2) 30 percent by 2020; and, 3) 80 percent by 2050.[61] While the *Action Plan* is extensive, the proposals it contains are short on detail for how Toronto plans to achieve such ambitious community emissions reduction targets. Instead, the bulk of the *Action Plan* focuses on financing for further City of Toronto corporate emissions reductions, calling for the creation of a $42 million Toronto Energy Conservation Fund for energy-saving initiatives, and the endorsement of funding for continuing energy efficiency upgrades at city facilities. Indeed, despite efforts to engage the community through targets set in the *Climate Change, Clean Air and Sustainable Energy Action Plan* or programs such as the Better Buildings Partnership, the City of Toronto's climate change policy, like the City of Calgary's, remains devoted almost entirely to corporate greenhouse gas emission reductions.

As is the case in Calgary, the distinction between corporate and community greenhouse gas emissions in Toronto is an important one. As Tables Four and Five show, there is a vast difference between the two emissions types: Toronto's corporate emissions accounted for only 6.5 percent of the City's community total in 2004, down

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[61] City of Toronto, *Climate Change, Clean Air and Sustainable Energy Action Plan*, 3.

from nine percent in 1990.[62] While this 30 percent reduction in corporate emissions levels is well documented by the City of Toronto, it is much more difficult to find data on improvements in Toronto's community emissions. The City's own Air Quality Improvement Branch admits this is the case, claiming "restructuring in both the energy commodity industries, as well as the municipal sector itself, have made the production of reliable data time series all but impossible."[63] Thus one rationale behind Toronto's focus on corporate emissions is simply measurement; corporate emissions can be quantified thanks to the data at hand, while community emissions are "estimates that are more aggregate and approximate."[64] Additionally, as is the case in Calgary, the City of Toronto claims to first seek reductions in its own greenhouse gas emissions in order to act as a model and set an example for later community reductions. Referring to corporate actions as "house in order measures," Toronto claims that continuing its own reductions will not only save costs in the future, but will also "inspire further actions locally, having an additional positive impact on

Table Four – City of Toronto Corporate GHG emissions by Source, 2004 (tonnes of equivalent CO_2)

Buildings & Facilities	587,958
Water Pumping & Treatment	159,315
Street Lights & Traffic Signals	29,203
Fleet & Waste Transport	99,297
Landfills	721,250
TOTAL	1,596,962

Source: City of Toronto, *Greenhouse Gases and Air Pollutants in the City of Toronto*, 34.

Table Five – City of Toronto Community GHG emissions by Source, 2004 (tonnes of equivalent CO_2)

Residential	5,997,042
Commercial/Small Industry	6,884,767
Large Commercial/Industry	2,002,172
Transport	8,558,966
Waste	942,550
TOTALS	24,420,939

Source: City of Toronto, *Greenhouse Gases and Air Pollutants in the City of Toronto*, 24.

[62] City of Toronto, *Greenhouse Gases and Air Pollutants in the City of Toronto,* 37.
[63] Ibid.
[64] Ibid., 4.

reducing overall emissions for the Toronto community as a whole."[65] Given that the bulk of Toronto's city-wide greenhouse gas emissions now come from private transportation and energy use,[66] action beyond the corporate is clearly required if the City is to meet its stated objective of an 80 percent reduction in its community emissions by 2050.

While the City of Toronto has undertaken numerous policy initiatives to reduce its corporate greenhouse gas emissions and has developed targets for community reductions, noticeably absent from the discussion has been a role for the Partners for Climate Protection Program. This is no error. Despite its extensive local climate change initiatives Toronto is not an active PCP Program member. Given the City's early role in the genesis of the program this is surprising. As I have mentioned, the City and Metropolitan Area of Toronto were two of the original participants in the Cities for Climate Protection Campaign's pilot project. When the CCP Campaign began in 1993, the City of Toronto provided both funding and facilities for hosting ICLEI; indeed, ICLEI's secretariat is still located in Toronto's City Hall. Moreover, with its 1990 target of 20 percent emissions reductions by 2012, the City of Toronto began the CCP Campaign at Milestone Two. However, as a member of the Partners for Climate Protection Program the City of Toronto has not moved beyond Milestone Two. Unlike Calgary, in Toronto there is virtually no recognition of the City's participation in the PCP Program, nor Toronto's influential role in the establishment of the broader Cities for Climate Protection Campaign. While Toronto City Council did endorse Toronto's PCP

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[65] Ibid., 36.

[66] Ibid., see also Jared R. VandeWeghe and Christopher Kennedy, "A Spatial Analysis of Residential Greenhouse Gas Emissions in the Toronto Census Metropolitan Area," *Journal of Industrial Ecology* 11, no. 2 (Spring 2007): 133-144.

Program participation in May 2005,[67] no mention of the PCP Program is made in subsequent climate change mitigation policies, and the City remains mired in the early stages of the milestone process, exactly as it has been since 1993. Furthermore, despite Toronto being one of the PCP Program's most active members in terms of urban climate change policy implementation, if not PCP Program success, FCM makes no mention of the city in any of its documentation on best practices or the case studies it makes available to PCP Program members.

Conclusion

There is clearly a discrepancy between Calgary and Toronto's municipal climate change policies. While both cities have been extremely active in reducing their corporate greenhouse gas emissions, Calgary has done so under the auspices of the Partners for Climate Protection Program, while Toronto's participation in the Program has been non-existent since the early 1990s. This is surprising for a number of reasons. First, the literature on efforts to implement municipal greenhouse gas emission reductions consistently points to the effect of transnational municipal networks such as the Cities for Climate Protection Campaign as a major driving force in the world's most active cities.[68] Second, the recognition offered by the PCP Program in the form of publicity for local initiatives and awards for municipal emissions reductions measures would, expectedly, be a draw for any city that is actively implementing climate change mitigation policies. Third, Bulkeley and Betsill argue that one of the major driving forces behind CCP

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[67] City of Toronto, "Mayor's Roundtable on the Environment: Progress Report," May 2005, http://www.toronto.ca/committees/rt_environment/report_2005_may.htm (accessed 11 August 2007).
[68] See Lindseth, "The Cities for Climate Protection Campaign (CCPC) and the Framing of Local Climate Policy," and Davies.

participation is the financial support offered by ICLEI.[69] Because the Federation of Canadian Municipalities entices PCP participation by offering funding to network members, the expectation, given Bulkeley and Betsill's conclusion, is that cities with active climate change policies would also be active program participants in order to receive the financial benefits of participation. In the face of these expectations, and given its initial support, Toronto's relative inactivity as a member of the Partners for Climate Protection Program is a surprising one. In Chapter Four, I turn to an explanation of this inactivity.

[69] Bulkeley and Betsill, *Cities and Climate Change*, 187.

Chapter Four

Knowledge, Discourse and the Construction of Municipal Climate Change Policy

Generating an Explanation

The purpose of this chapter is to provide an explanation for the variation in network participation between members of the Partners for Climate Protection Program. However, before embarking down this explanatory path it is useful to remind the reader of my theoretical approach to the question of PCP participation. In Chapter Two, I argued that constructivist theory provides a useful tool for linking the literature on transnational municipal networks and the Cities for Climate Protection Campaign with that of municipal capacity in general, and thus provides a useful lens through which to view Calgary and Toronto's PCP membership. Constructivist theory posits that knowledge is socially constructed and employed by actors based on their perceived interests and constraints. A constructivist analysis looks at how discourse—which, drawing from Litfin, I defined as "sets of linguistic practices and rhetorical strategies embedded in a network of social relations"[1]—is used to frame both policy problems and solutions in a way that privileges certain forms of knowledge over others. Furthermore, while specific conceptions of knowledge are used to legitimize policy decisions in a discursive sense, there is also a role in this approach for the importance of instrumental knowledge to guide policymakers in their decision-making, as long as that instrumental knowledge reflects the discursive framing of policy problems and solutions. Thus constructivist theory leads to an examination of the discourse employed by both the

[1] Litfin, 3.

network *and* its members to construct climate change in a way that reflects the interests and constraints involved at *all* levels. In this way, the approach offers an explanation for municipal participation in networks such as the PCP Program that differs from those of the authors who see the impact of these networks as the driving force behind municipal climate change policy

What follows in this chapter, then, is an explanation for network participation that reflects the theoretical distinction between knowledge as a fundamental understanding of one's role in relation to others and knowledge in an instrumental sense.[2] The chapter is divided into two sections in order to capture these different but related theoretical elements of my argument. I first examine the construction of a municipal response to climate change in Calgary and Toronto, as well as the framing of climate change policy by the Partners for Climate Protection Program, and I argue that the particular form of knowledge the PCP Program advocates provides an explanation for why the two cities joined the network. Second, to explain the difference between Calgary and Toronto's levels of PCP participation I look at the role of instrumental knowledge in determining the degree of network engagement in both cities. Importantly, the questions of how climate change policy is constructed and how instrumental knowledge is incorporated into this policy are not separate elements of my argument. Rather, as will become clear, the discourse employed to frame climate change determines the type of instrumental knowledge that is deemed important, and both elements are necessary in my explanation of the variation in PCP participation.

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[2] Hasenclaver et al., 138.

The Nature of Climate Change and the PCP Program

The first piece in the network participation puzzle comes from the way the PCP Program and its members construct climate change as a policy issue. Rather than focus on the *problem* of climate change per se—that is, the threat that an increasingly variable climate poses to Canadian cities—PCP administrators and municipal policymakers in Calgary and Toronto frame climate change as an opportunity to implement *solutions* that help to address preexisting local policy concerns.[3] Gough and Shackley argue that transnational networks dealing with climate change politics can afford to avoid discussing the nature of the problem because the issue has largely become accepted orthodoxy among policy institutions, as well as public and private sector organizations. The implication of this widespread acceptance, they continue, is that the role of climate change networks such as the PCP Program has evolved from that of an outside actor working for issue recognition to one of partnership in the development of frameworks and principles for implementing solutions.[4] This argument could provide a possible explanation for why the PCP Program frames climate change as an opportunity to address preexisting concerns rather than a threat to municipalities. However, as Grundmann points out, the idea that transnational networks exist solely to contribute to the crafting of solutions for climate change ignores that there is not necessarily consensus on what these solutions should be.[5] Indeed, in Grundmann's argument it is up to the state—or in this case, municipalities—to decide which policy solutions to develop as a response to

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[3] Lindseth makes a similar argument, but he claims the network's connecting of climate change actions to local concerns is the driving force behind municipal climate change policy. As will become clear, I see the issue as more complicated than this. Lindseth, "The Cities for Climate Protection Campaign (CCPC) and the Framing of Local Climate Policy," 333.

[4] Clair Gough and Simon Shackley, "The Respectable Politics of Climate Change: The Epistemic Communities and NGOs," *International Affairs* 77, no. 2 (2001): 329.

[5] Grundmann, 416.

climate change, and to do so policymakers must decide which knowledge to draw upon in order to legitimize their preferred response.

In both Calgary and Toronto, the use of discourse to construct climate change as an issue connected to policy concerns already on the urban agenda is crucial to the legitimization of municipal climate change policy actions. As I discussed in earlier chapters, this is accomplished by framing climate change policy solutions as providing those who enact them with co-benefits beyond simple greenhouse gas reductions. Paterson and Stripple argue that rather than focusing on the danger of the consequences of climate change, policy responses to climate change are often framed as providing opportunities.[6] In Calgary and Toronto, climate change policy solutions are framed as an opportunity to realize both material and non-material benefits in addition to greenhouse gas reductions. In the City of Calgary, for example, the employee in charge of climate change policy indicated that, "our strategy is to combine air quality and climate change together...no one can criticize air quality, they all like clean air. There's no politics to it really. It's like a motherhood issue, everybody likes it or demands it, but not everyone demands action on climate change."[7] The same message comes from Toronto's senior air quality specialist: "people thought 'well let's [attach climate change to] air quality because it's bound to be a benefit to reduced use of cars, reduced natural gas consumption, et cetera, et cetera."[8] In both cities, then, climate change was originally placed on the policy agenda by framing the reduction of greenhouse gases as a co-benefit of addressing pre-existing concerns about air quality.

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[6] Paterson and Stripple, 151.
[7] Shymanski.
[8] Morgan.

However, air quality issues are not the only connection made between climate change and urban policy concerns in Calgary and Toronto. In both cities, the types of policy solutions implemented also reflect the construction of climate change actions as providing financial benefits. In the previous chapter I discussed how Calgary's three major climate change initiatives—the Energy Performance Contracting, EnivroSmart Streetlight Retrofit, and LED Traffic Signal Replacement Programs—reflect this focus on financial co-benefits. City of Calgary documentation with respect to all three of these policies—policies that are cited extensively by the Federation of Canadian Municipalities as cases of Partners for Climate Protection Program success—make it clear that financial savings were the driving motivation behind taking actions to reduce greenhouse gas emissions. The same is true in the Toronto case, where the Toronto Atmospheric Fund, the Better Buildings Partnership, and the Energy Retrofit Program all exist to save the City of Toronto money by reducing energy costs, and a reduction in greenhouse gas emissions is a side effect of taking action.[9]

The Partners for Climate Protection Program also frames climate change policy solutions as addressing pre-existing urban concerns and providing municipalities with co-benefits that go beyond simply addressing the problem of climate change. For example, in Chapter Three I referred to a Federation of Canadian Municipalities' document entitled *The Business Case for Cutting Greenhouse Gas Emissions from Municipal Operations.* This document, part of the toolkit that municipalities receive when they join the PCP

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[9] The obvious question here is how do I know that the cost savings are not the side benefit of greenhouse gas reductions, rather than vice versa? My argument is that both the network and municipal discourse is clear in placing an emphasis on the financial savings that can be achieved through these measures and, therefore, many of the emissions reductions would not occur were it not for these co-benefits. This mirrors much of the literature on municipal climate change policy, for example, Slocum, "Consumer Citizens and the Cities for Climate Protection Campaign."

Program, recognizes that "a municipal government...needs clear evidence that cutting greenhouse gas emissions from its operations will meet its fiscal and legal responsibilities," and then goes on to detail the quantitative and qualitative benefits that municipalities will receive by cutting emissions.[10] These benefits are framed as a response to issues that cities already face. Rising energy costs, for example, can be curtailed by introducing energy efficiency measures advocated by FCM and ICLEI, with the secondary benefit of a reduction in greenhouse gas emissions.[11] Alternatively, increasing urban green space can lead to a better quality of life for a city's residents while at the same time reducing emissions.[12] The FCM staff member in charge of the PCP Program is equally clear about the necessity to frame climate change actions as providing co-benefits for network members: "initially it was the energy saving opportunities [that encouraged municipalities to enact climate change policies], energy efficiency, to save money in that way. Now there's more discussion about renewable energy opportunities, economic development opportunities."[13] Perhaps surprisingly, noticeably absent from the network's framing of the issue is the causal role of municipalities as a contributor to climate change. Instead, the Partners for Climate Protection Program does not necessarily construct climate change policy as a response to this global and local problem, but rather frames it as an opportunity to take advantage of the co-benefits provided by the solution.

Policy solutions of the type proposed by the network and enacted by Calgary and Toronto, in concert with the comments by actors at both levels, allude to the motivation

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[10] FCM, *The Business Case for Cutting Greenhouse Gas Emissions from Municipal Operations*, 3.
[11] Ibid., 4.
[12] Ibid.
[13] Causley.

for framing climate change policies as providing co-benefits. Canadian municipalities in general, and Calgary and Toronto in particular, face political and institutional constraints in addressing emerging policy issues such as climate change. The City of Toronto has had its environmental services department decimated over the last 20 years, reduced from 60 staff to six full-time employees, and thus struggles with a decreased institutional capacity to confront issues such as climate change.[14] While Calgary's Environmental and Safety Management Group has expanded in recent years, both cities face a situation of constrained funding due to a heavy reliance on property taxes and grant money for their operating budgets.[15] In an institutional environment such as this it is difficult for municipal governments to take on new policy responsibilities that require increased staff and expenditures. By linking climate change policies to pre-existing areas of concern where policy actions are already taking place—such as energy consumption and, perhaps more importantly, municipal finances—municipalities can, to some extent, overcome these constraints.[16]

On its own, however, the framing of policy solutions as providing co-benefits with respect to other policy concerns does not capture the whole picture of how the PCP Program and its members construct and employ knowledge about municipal climate change policy. Indeed, this argument only provides an understanding of the *content* of municipal climate change policy solutions, but offers little in the way of explaining network participation. Thus in addition to understanding policy content, it is also important to understand *where* the proposed policy solutions are targeted. Here I am

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[14] Morgan.

[15] Shymanski. Morgan.

[16] A similar argument is found with respect to international climate change negotiations in Bäckstrand and LövBrand.

referring to the division between corporate and community greenhouse gas emissions in the Partners for Climate Protection Program. This is an essential element of the network's framing of climate change policy because it allows its members to achieve network success—in this case, by progressing through the network's milestones—while at the same time reflecting the constraints under which these municipal actors operate. Furthermore, in tandem with the concept of co-benefits, this division between corporate and community emissions shows the influence of municipal actors on the network's construction of climate change, and is a necessary element of the PCP Program.

In their discussion of Canadian municipal environmental policy, Parkinson and Roseland argue that municipal governments have an important, two-fold role to play in the shift toward "a more sustainable Canada": first by implementing initiatives affecting their own operations, and second by working with the community to encourage urban residents to take their own actions.[17] This idea of a division between two different targets of municipal environmental policy is reflected in the Partners for Climate Protection Program's division between corporate and community greenhouse gas emissions. Both the municipalities and the network itself frame this division as important in terms of 'leading by example' on climate change policy. As I discussed in the previous chapter, municipal actors employ the phrase 'leading by example' to reflect their belief that they must take actions to reduce greenhouse gas emissions from their own operations before encouraging the broader community to follow suit. The importance of the commitment to leading by example is reflected not only in the climate change plans of both Calgary

[17] Sarah Parkinson and Mark Roseland, "Leaders of the Pack: An Analysis of the Canadian 'Sustainable Communities' 2000 Municipal Competition," *Local Environment* 7, no. 4 (2002): 424.

and Toronto,[18] as well as the information packages the PCP Program provides its members to guide them through the milestone process,[19] but also in the comments of climate change officials in the two municipalities. With respect to his city's climate change policy, Toronto's senior air quality specialist says, "we feel the municipality needs to lead by example. It's awfully hard to go out to the community and say you need to do this, this and this without leading by example."[20] Calgary's climate change policy representative frames his city's actions in the same terms but is even more succinct, referring to the division between corporate and community emissions as "the leading by example thing."[21]

Independent of other factors, this division between emissions types makes little sense vis-à-vis an overarching commitment to reducing municipalities' impact on global climate change. This is especially true given that corporate emissions represent such a limited portion of both Calgary and Toronto's overall greenhouse gas emissions. However, policy decisions are never taken independent of other factors. While municipalities and the PCP network seek to legitimize the division between emissions types by framing municipal governments as a laboratory in which to demonstrate the success of greenhouse gas reduction measures, I argue there is more to the distinction between corporate and community emissions than a simple commitment to 'leading by example.' Instead, municipal decision-makers choose to enact policies that reflect the interests they think they have, the constraints under which they operate, and the goals they hope to achieve. More than a simple commitment to leading by example in hopes

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[18] City of Calgary, *State of the Environment Report, 2002*, 14. City of Toronto, *Greenhouse Gases and Air Pollutants in the City of Toronto*, 37.
[19] Causley.
[20] Morgan.
[21] Shymanski.

that the community will follow suit, the division between corporate and community emissions shows the use of a specific discourse to construct climate change solutions in a way that reflects these interests, constraints and goals.

Chief amongst the factors that lead to the division between emissions types is the political nature of greenhouse gas reductions. Environmental issues in general are seen as highly political in terms of both underlying causes and proposed solutions,[22] and climate change is certainly no exception. Some authors argue that municipal governments are better insulated from the politics of climate change since lobbies that may be adverse to greenhouse gas reductions, such as the energy or automobile manufacturing industries, are less organized at the local level.[23] However, this seems a dubious claim given the list of actors who would no doubt be concerned about the impact of efforts to address community-wide municipal greenhouse gas emissions—from residents to manufacturers to the developers that are often responsible for the bulk of municipal election funding.[24] By framing policy solutions as focusing on efforts to reduce corporate emissions, then, the PCP Program and its members seek to limit concerns over potential political conflict by drawing attention away from the impact these groups have on community emissions, as well as their role in the structural nature of climate change—as reflected in comments about connecting the issue to pre-existing policy concerns such as air quality. Indeed, as policymakers in Calgary and Toronto put it, these political concerns are a significant reason underpinning the hesitant move toward

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[22] Eric Laferriere and Peter Stoett, *International Relations Theory and Ecological Thought: Towards a Synthesis*, (New York: Routledge, 1999), 3. See also Peter Stoett and Philippe La Prestre, "From Neglect to Concern: The Study of Canadian-American Ecopolitics," in *Bilateral Ecopolitics: Continuity and Change in Canadian-American Environmental Relations*, eds. same (Burlington, VT: Ashgate, 2006): 3.
[23] Byrne et al., 4566.
[24] Gonzalez, 7.

community emissions reductions in both cities:

> "The reality is that to get some sort of measurable change in greenhouse gas emissions at [Calgary's] community level it's going to take a paradigm shift in the way that people think about how they live their lives and how they actually live their lives. I don't personally see that happening for a long time. It's going to be an extremely slow and laborious process. If it happens at all I don't know."[25]

> "Because the [Toronto] climate change reduction plan has got an 80% reduction target by 2050, we're very aware that we're going to have to do a major piece of work to find out how that's going to happen. It means one in every five cars can remain and the rest of them will have to disappear. To get to that point...it's going to be very hard and very expensive and very political."[26]

Furthermore, the division between corporate and community emissions not only frames climate change solutions in a way that potentially lessens the political impact of municipal climate change policy, it actually provides advanced PCP members with an opportunity for political *gain*. By defining successful network participation—and, by extension, a successful municipal climate change policy—as the implementation of corporate reduction measures and progression through its milestone process, the PCP Program rewards municipalities such as Calgary for achieving relatively minimal overall emissions reductions. In turn, these municipalities can point to their network success as a demonstration of their commitment to addressing climate change, and can also reap the potential political benefit of exploiting the increasing importance of this issue with Canadian municipal electorates.[27] The same is true in the framing of climate change policy in Toronto. Though that city is not an active PCP member, by highlighting its reductions in corporate emissions as an example of a successful municipal climate change

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[25] Shymanski.
[26] Morgan.
[27] Robinson and Gore, 108.

policy Toronto seeks to benefit from a particular framing of the issue. This is not to diminish the significance of the climate change policy solutions enacted in municipalities such as Calgary and Toronto, but it is useful to recognize that they, along with the PCP Program, frame successful climate change efforts as a reduction in corporate emissions, *irrespective* of the quantity of total community-wide emissions reductions actually achieved.

There are other factors besides political concerns that influence the distinction between corporate and community emissions. As I discussed in Chapter Two, one of the most obvious of these is a limited institutional capacity to implement and monitor community greenhouse gas reductions. Indeed, climate change policymakers in both Calgary and Toronto identify the continuing devolution of responsibilities from provinces to municipalities, as well as the limited capability of municipalities to raise revenue outside of property taxes, as hindering the development of a community-wide approach to municipal climate change.[28] In tandem with these institutional limitations is the question of data on greenhouse gas emissions. While it may seem a minor issue given the potential political and financial constraints on municipal climate change policy, in reality the measurement of greenhouse gas emissions remains a complex and somewhat inexact process.[29] Because a successful climate change policy is framed as a quantifiable reduction in greenhouse gas emissions as measured against a benchmark year, it is reasonable to expect policy action to occur in areas where municipalities can most easily determine what their emissions levels actually are. Indeed, the FCM staff member responsible for the PCP Program points out that it is far easier for municipalities to

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[28] Shymanski. Morgan.

[29] See VandeWeghe and Kennedy for an example.

quantify greenhouse gas emissions vis-à-vis their own operations—where they have ready access to data such as energy consumption figures—than it is to quantify emissions in the broader community.[30] Therefore, in addition to the need to set an example, the potential political and institutional constraints, and the financial benefits of climate change policies, it seems logical to encourage municipalities to achieve reductions where they are best placed to do so in a technical sense—that is, in their own operations. Whether they achieve these reductions and how they obtain the knowledge required to do so is another question I address in more detail below.

The Role of Agency

My argument thus far is that the framing of municipal climate change actions as providing co-benefits, in tandem with the division between corporate and community emissions, is crucial to explaining Calgary and Toronto's climate change policies and the variation in participation in the Partners for Climate Protection program. To this point, the argument has focused on structural influences: I have posited that climate change knowledge is constructed through the use of discourse to frame problems and propose policy solutions in a way that reflects the constraints and interests influencing municipal actors. Recognizing what these constraints and interests are provides an explanation for the content and targeting of both Calgary and Toronto's climate change policies. However, to explain why these municipalities join the PCP network to begin with requires adding individual agents to this structural explanation.

Specific individuals were integral to both Calgary and Toronto's original participation in the precursor to the Partners for Climate Protection Program. As I

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[30] Causley.

discussed in Chapter Three, Calgary Alderman Bob Hawkesworth and his Toronto counterpart Tony O'Donohue were both integral to bringing concerns about climate change to their respective councils. In the present context, both Mayor Bronconnier of Calgary and Mayor Miller of Toronto are vocal champions of their respective municipal climate change policies. Indeed, numerous scholars in a variety of national contexts emphasize the presence of at least one interested and engaged political torchbearer as a necessary factor in the development of municipal climate change policy.[31] With respect to PCP participation, these individual agents are key because they are the mechanism linking municipal governments to the network. Indeed, given that FCM is contacted by cities interested in PCP Program membership rather than the other way around, the presence of interested municipal actors is crucial to expanding network participation.[32] Of course, while this original interest in municipal climate change policy and PCP participation could just as likely come from a municipal administrator as from a political agent, actors at both the municipal level and the network recognize that without the eventual support of municipal council a successful climate change policy will not be developed.[33]

This need for agents to link the network to municipalities and the necessity for political backing are both key to understanding how municipalities come to implement climate change policy solutions and to participate in the PCP Program. Importantly, however, these individuals would not seek out a network such as Partners for Climate

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[31] See, for example, Lee Allman, Paul Fleming and Andrew Wallace, "The Progress of English and Welsh Local Authorities in Addressing Climate Change," *Local Environment* 9, no. 3 (June 2004): 282. As well, Collier and Lofstedt, 36. This is also a common observation of those studying the formation of international environmental agreements such as the Montreal Protocol. Litfin.

[32] Causley.

[33] Shymanski. Morgan. Causley.

Protection if it did not frame climate change policy in a way that reflected their interests. Individual agents such as Alderman Hawkesworth and Councilor O'Donohue, as well as the politicians concerned with climate change that followed them, are acting on these interests—in this case a belief in the importance of urban actions to confront climate change—and turn to particular forms of knowledge as a source of legitimization. However, they do so within the context of institutional constraints and rational concerns over issues such as reelection. It is therefore necessary for these individual agents to frame their concerns about climate change in a way that overcomes their concerns about these other issues. As I have argued throughout this chapter, climate change policy in Calgary and Toronto in general, and the Partners for Climate Protection Program's efforts in particular, accomplishes this by framing policy actions through a focus on co-benefits and the distinction between corporate and community emissions.

The PCP Program and the Transmission of Instrumental Knowledge

To this point I have examined why Calgary and Toronto would implement municipal policies to reduce their own organization's greenhouse gas emissions, as well as why both cities could be expected to participate in a network that encourages them to do so; I have not yet provided an explanation for the variation in the two cities' participation in the Partners for Climate Protection Program. To do so, it is necessary to first recognize the relatively limited impact the PCP Program actually has on both cities' climate change policies. Contrary to the bulk of the literature on the broader Cities for Climate Protection Campaign—which, as I discussed in Chapter Two, argues that the transnational network is the driving force behind placing climate change on the municipal policy agenda—in both Calgary and Toronto the efforts of specific individuals at the

municipal level were key to placing climate change on the municipal policy agenda. Moreover, in most cases there is actually very little interaction between the organizations that administer the network—the Federation of Canadian Municipalities and the International Council for Local Environmental Initiatives—and the network members themselves.[34] Indeed, while the PCP Program may be expected to have a limited impact in a relatively inactive member city such as Toronto, when asked if the program has any impact on the content of his city's climate change actions, Calgary's climate change policy administrator responded, "No. No. No. That's pretty easy, it's never been a driving force."[35]

If the PCP Program is not a driving force behind climate change policy in the two cities, then why do they bother to participate in the network at all? The answer is that the PCP Program offers municipalities incentives as a way to encourage participation. While these include the political incentives discussed above, in Chapter Three I also explained how FCM conceives of the PCP Program as, first and foremost, "a national capacity-building network that supports municipal efforts to reduce greenhouse gas emissions."[36] In order to build this capacity, the network offers its members a variety of resources: software to aid in the quantification of emissions; a toolkit on how to proceed with greenhouse gas reductions and the implementation of climate change plans; and access to funding. These resources are tools of *instrumental knowledge*; they provide guidance for policymakers who may be struggling with the technical nature of how to implement policy solutions for climate change. It is this instrumental knowledge offered by the PCP

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[34] So little, in fact, that FCM did not have names on file for PCP liaisons at the political level in either Calgary or Toronto. With respect to bureaucratic liaisons, both names FCM had on file were outdated and no longer dealing with climate change policy in the two cities. Causley.

[35] Shymanski.

[36] FCM, "Partners for Climate Protection, Annual Report 2004-2005," 11.

Program and the way it is incorporated into Calgary and Toronto's climate change policies that explains the variation between network participation in the two cities.

Climate change policymakers in the City of Calgary have drawn extensively on the tools of instrumental knowledge offered through the PCP network. While initial interest in addressing climate change originated with individuals at the municipal level, a lack of technical expertise about how to approach the issue led to the City's advanced participation in the PCP Program. During the design of Calgary's successive climate change plans the City's policymakers interacted extensively with both ICLEI and FCM because, "at the time, there was a certain level of expertise there for advice on issues of emissions accounting and protocol."[37] This expertise came in the form of instrumental knowledge on how to quantify citywide greenhouse gas emissions through the use of the software package offered by the network, a contribution that helped to overcome the technical challenges Calgary had been facing with respect to calculating its corporate emissions data.[38] By drawing on this instrumental knowledge during the formulation of Calgary's first corporate greenhouse gas emissions inventory, the municipal government became increasingly engaged with PCP Program administrators. This engagement involved submitting plans for guidance and commentary to both FCM and ICLEI, and eventually led to Calgary's progression through the network's milestone process. With the development of HEAT, Calgary's own greenhouse gas emissions accounting software, the interaction between the network and the City diminished greatly, but Calgary had already completed the corporate milestone process and become the most advanced Partners for Climate Protection Program member.

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[37] Shymanski.

[38] City of Calgary, *The City of Calgary 2003 Corporate Greenhouse Gas Emissions Inventory*, 2.

While the instrumental knowledge the PCP Program offers is crucial to Calgary's status as one of the program's star participants, these technical tools are met with a much cooler reception in the City of Toronto. According to Toronto's senior air quality specialist, his city is not an active PCP participant because the network's tools—the emissions quantification software and the toolkit on how to address climate change—are too simplistic to achieve Toronto's climate change policy objectives. It is worth quoting him at some length here to understand his rationale:

> "When you use the PCP in terms of the software models...they like to know how many litres of gasoline have been used in the city or town for example. And if you don't know that it defaults to how many cars do you have. And if you don't have that, how many people live there. And it will basically default down to how many people, let's assume that every 2.2 have a car and take an average car size and average mileage and calculate emissions from there. *So it's very top down, rough stuff.* Whereas if we're actually going to address it, not on the car side, but consumption of energy, natural gas and electricity, we've got to know where it's being consumed, what the size of the buildings are so we have some sense of how efficient is that building. Because the building may have been built 100 years ago, some may have been retrofitted and some may not...and that's what we're doing. It's more important to get something done rather than just look good."[39]

Unlike the case of Calgary, then, from the very early stages of its climate change policy the City of Toronto worked on developing its own system to quantify greenhouse gas emissions in order to implement its particular policy solutions. The City of Toronto does not employ the instrumental knowledge provided by the PCP Program because this form of knowledge does not offer a useful tool to legitimize the City's conception of these climate change policy solutions. By not engaging with the PCP Program in the design and implementation of its climate change policies, therefore, Toronto remains an inactive

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[39] Morgan. Emphasis added.

network member, *regardless* of the relatively advanced nature of its climate change policy vis-à-vis other Canadian municipalities.

Interestingly, here there is also an important role for individual agency with respect to the way that a city incorporates the instrumental knowledge provided by a network such as the PCP Program. In the case of both Calgary and Toronto, the skills of the individuals responsible for the development and implementation of the city's climate change policy have a crucial impact on the need to draw on the network's instrumental knowledge. While the climate change policymakers in both cities are well-educated and have been in their positions for a number of years, in Toronto's case the City's senior air quality specialist holds a PhD in glaciology, a Master's degree in climate sciences, and was formerly a university professor specializing in climatology. Calgary's point man on climate change, however, holds a Master's degree in urban planning and has no scientific or educational experience with air quality or climate change issues. This difference in knowledge and experience is a significant factor in the City of Calgary's need to turn elsewhere for guidance through the complexities of quantifying greenhouse gas emissions. To again quote Toronto's representative at length:

> "I've got a scientific background, but there are a lot of people who come into this from a policy background and have little understanding of the complexities of getting the data, utilizing the data to project something about real consumption. So we do see a lot of people who demand simple tools because they don't have the scientific background. And these are the leading lights of the field. A lot of these people come from public health or planning and don't have a scientific background. They are very keen to do the right thing but they don't have the tools, so getting the tools like the PCP stuff, which is very simplistic, is a help to them, so I shouldn't knock it."[40]

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[40] Morgan.

A final word is necessary on the relationship between knowledge in its discursive and instrumental forms in my argument. These two elements of my explanation for PCP participation—how both the network and the municipalities construct climate change solutions and how they incorporate technical information to implement these solutions—are not independent of one another. Rather, as I alluded to in the introduction to this chapter, the way that all participants frame climate change will dictate the types of instrumental knowledge they employ to accomplish their objectives. In turn, the successful incorporation of tools of instrumental knowledge can alter the framing of climate change policy by leading to an evolution of municipal interests and constraints. The first section of this chapter, in which I argued that municipal climate change policy is constructed in a way that focuses on co-benefits and corporate emissions, is therefore necessary for establishing the context for the second section, where I argue that the need for particular forms of instrumental knowledge explains the variation in PCP participation between the two municipalities. Furthermore, the importance of the construction of climate change knowledge is why my argument diverges from that contained in the epistemic communities literature, which looks to the rational incorporation of technical information as a driver for policy change. I have argued that what is necessary is to first construct both policy problems and solutions in a way that reflects the interests of, and constraints faced by, those involved, and second, to then turn to the acceptable conception of technical information to achieve these interests.[41] Thus instrumental knowledge is not simply a tool used to bridge the gap between objectives

[41] This relationship between interests, constraints and technical information is essentially the same process Litfin identifies as permitting the development of an ozone layer protection regime.

and expertise, but is employed to achieve specific interests in a particular context and must therefore reflect how both problems and solutions are framed.

Conclusion: The Big Theoretical Picture

In this chapter I have provided a constructivist explanation for the variation in Partners for Climate Protection Program participation that is comprised of three interrelated components. First is the nature of municipal climate change policy in Calgary and Toronto. I have argued that in both municipalities, climate change policy is seen not as a response to a specific policy problem, but rather as an opportunity to reap the benefits of implementing particular policy solutions. The reason climate change policy is framed in this way is that actors in these municipalities are drawing upon a specific form of knowledge that reflects the constraints under which they are operating, while at the same time helping them to achieve their interests. As Litfin writes in her analysis of ozone politics, "knowledge [is] not simply a body of concrete and objective facts...accepted knowledge [is] deeply implicated in questions of framing and interpretation...related to perceived interests."[42] In Calgary and Toronto, the empirical reflection of this theoretical conception of knowledge is the implementation of policy solutions that target municipal operations and corporate greenhouse gas emissions as opposed to the actual implementation of broader community-wide emissions reductions. My research shows that both cities frame their climate change actions in these terms, and I argue that the relatively advanced climate change policies in Calgary and Toronto—at least vis-à-vis the vast majority of their Canadian municipal counterparts—can be

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[42] Litfin, 6.

attributed to the effectiveness of this framing in reflecting the interests and constraints at work in the two cities.

The second component of my explanation is the role for the Partners for Climate Protection Program and its provision of instrumental knowledge. The recognition of the PCP Program as providing its members with the tools of instrumental knowledge mirrors much of the literature on transnational networking in general, and transnational municipal networks in particular. Keck and Sikkink, whose argument aligns with my theoretical approach, see the exchange and production of information, knowledge, and different problem framings as crucial to the actions of networks such as the PCP Program.[43] Following their line of reasoning, in my argument the discourse employed by both the municipalities and the PCP network frames the type of actions that are seen as acceptable with respect to municipal climate change policy. At the same time, the instrumental knowledge that stems from this framing offers a means through which to implement these actions. Drawing on this instrumental knowledge is key to accomplishing policy objectives in cases such as Calgary, where municipalities may not have the technical expertise to achieve their objectives. Therefore, while the PCP Program is not itself a driving force in the content of either Calgary or Toronto's climate change policy, its conception of municipal climate change solutions and its provision of instrumental knowledge is integral to understanding the extent to which these municipalities engage with the network.

The final component of my explanation is the importance of individual agency in the evolution of municipal climate change policies as well as network participation. The

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[43] Keck and Sikkink, 1.

interests and beliefs of particular individuals are key with respect to the original and current implementation of climate change policies in Calgary and Toronto, and also provided the link between these cities and the Partners for Climate Protection Program. Furthermore, in both cities the skills of particular policymakers and their acceptance or rejection of the instrumental knowledge that the network provides are integral to the level of participation in the PCP Program. At the same time, all of these individuals are acting within a particular structural context where one form of knowledge about the solutions to climate change is more highly prized than other forms. Thus while the presence of interested and engaged individuals is a necessary element of my explanation, it is important to recognize that these agents are themselves drawn to the issue because it is constructed in a certain way; their interest in municipal climate change policy does not arise out of something of a black box. In conjunction with the rest of my explanation, then, the role for individual agents reflects my argument that constructivist theory provides a useful theoretical lens through which to view PCP participation because it allows for strategic individual actions in order to achieve interests, while at the same time recognizing that these actions take place in the context of an intersubjectively structured universe.[44] To put it another way, Calgary and Toronto's discourse and climate change policy actions demonstrate the recognition that the problem of climate change is structural in nature, but the policy solutions advocated by the involved actors

[44] Ibid., 3. See also Martha Finnemore, *National Interests in International Society* (Ithaca, NY: Cornell University Press, 1996), 24-28.

nevertheless assume that the solution to the problem can be found by acting within existing institutions.[45]

These three interrelated components of my argument all point to an important conclusion in my explanation of the variation in Partners for Climate Protection Program participation. While the bulk of the literature on the broader Cities for Climate Protection Campaign conceives of the network as a driving force in the content of municipal climate change policies, the relationship between the network and its members is better understood as a two-way street. On the one hand, the network is actively influencing municipalities by helping to define the issue of municipal climate change, as well as the types of solutions that are acceptable and how they should and could be implemented.[46] On the other hand, the form this definition takes must reflect the interests of, and constraints faced by, municipal actors. Indeed, if the PCP Program does not construct climate change knowledge in a specific form that is appealing to municipalities—both in its framing of the issue and its provision of tools to confront it—then participation in the network would be unlikely. To put it another way, the very strategy for success of networks such as the PCP Program depends highly on the context in which they operate, and the extent of municipal participation depends on actors at that level viewing the network as providing legitimization for their actions. In this way the Partners for Climate Protection Program provides an interesting example of the growing trend toward multilevel governance; not only does the network influence what happens in the municipalities, but the municipalities influence what happens at the network as well.

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[45] Maarten Hajer, *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process* (Oxford: Clarendon Press, 1995). See also Heather Lovell, "Framing Sustainable Housing as a Solution to Climate Change," *Journal of Environmental Policy & Planning* 6, no. 1 (March 2005): 36.

[46] Keck and Sikkink, 201.

As with any theoretical explanation, it is important to consider the question of generalization from my specific cases to similar examples. In short, how well does my argument about Calgary and Toronto's climate change policy and PCP participation apply to other municipalities? Keeping in mind the methodological issues that I identified in the opening chapter, I expect the first component of my argument—that knowledge around municipal climate change is socially constructed through the use of discourse to reflect the constraints and interests of engaged actors—is generalizable to all Canadian municipalities. Indeed, the participation of 155 municipalities in the PCP Program would seem to indicate the resonance of its message in these communities, and given that Canadian municipalities are recognized to suffer from similar institutional constraints I would expect the network's framing of climate change policy would be effective in these municipalities as well.[47] Furthermore, the absence of participation and a broader climate change policy in Canada's other municipalities could be attributed to another component of my argument, a lack of individual actors engaged or interested in municipal climate change. It is the remaining component of my argument—the importance of individual capacity vis-à-vis the role for instrumental knowledge—that may raise questions about the generalizability of my explanation. The skills possessed by those involved in the crafting of municipal policy are not likely to be consistent across municipalities, and the bulk of the literature on municipal policymaking would indicate that the scientific expertise found in Toronto is a rather unique case.[48] Thus one expectation could be that in municipalities committed to enacting climate change policy but uncertain how to do so, increased network participation will be the result. By

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[47] Lightbody, 342.

[48] See, for example, Robinson and Gore, 112-113.

examining whether this is the case in these municipalities, scholars could test the generalizability of my argument about the role for instrumental knowledge in municipal climate change policy and network participation.

In closing this chapter, a final word on constructivist theory is needed here. A concern with much of the literature that employs a constructivist approach in its analysis of environmental policy is that it is interpreted as conspiracy theory, whereby nefarious actors frame their issues in one light in order to accomplish hidden objectives in another. I wish to stress that this is not the case with my explanation. Instead, I am claiming merely that these actors are responding to their particular interests and constraints in their framing of climate change policy in a particular way.[49] Furthermore, it is useful to recognize the role these interests and constraints play in the construction of knowledge around issues like municipal climate change policy because it raises questions for the evaluation of the success of such networks and policy solutions. With that in mind, in the final chapter I consider the implications of constructing municipal climate change policy actions in this manner, as well as areas for potential future research on this issue.

[49] At the risk of descending into infinite regression, I recognize that the question of how these interests and constraints are themselves constructed is an interesting one. Unfortunately I must set these questions aside for another day. I have chosen to begin my research at this point and will leave these concepts open to future scholarly work.

Chapter Five

Conclusion

A Brief Summary

This thesis has argued that the discourse of both the Partners for Climate Protection Program and its members frames climate change knowledge in a way that reflects the interests and constraints faced by municipal actors. After establishing my approach to this argument in the first chapter, in Chapter Two I employed constructivist theory to unite the literatures on transnational municipal networking and municipal capacity. Chapter Three provided a detailed history of the Cities for Climate Protection Campaign, the Partners for Climate Protection Program, and climate change policy actions in Calgary and Toronto. Finally, Chapter Four provided an explanation for the variation in PCP participation that included three interrelated elements: the framing of municipal climate change policy knowledge; the role of the PCP Program in providing its members with tools of instrumental knowledge; and the importance of individual agency. As I have emphasized throughout, my explanation points to the conclusion that the actions of the network do influence participation amongst its members, but also that these actions are themselves influenced by the interests and constraints faced by municipal actors. With this argument in mind, the remainder of this chapter considers lessons to be learned from my explanation, as well as potential areas for future research.

Lessons and Questions for Future Research

Despite the lack of effectiveness of the PCP Program and its members in reducing community-wide greenhouse gas emissions, the importance of local action to tackle what

are traditionally framed as global problems is still a vital lesson to take from this thesis. Since its inception in 1993, membership in the global Cities for Climate Protection Campaign has increased to almost 700 cities, far beyond the initial objective of 100. Although, as I have discussed, members' actions provide limited community-wide emissions reductions, the optics of increasing membership could prove useful in drawing more attention to the issue for those hoping to address the causes of climate change. In part, this argument mirrors the discussion in the previous chapter about the framing of reductions in municipal corporate emissions in terms of 'setting an example.' Increasing numbers of cities participating in transnational municipal networks to reduce greenhouse gas emissions can increase the public attention focused on climate change, and can also potentially encourage national governments to act in confronting the problem. This is especially true in a country like Canada, where over 60 percent of the population resides in PCP member municipalities. Furthermore, efforts such as the PCP Program could provide a starting point for local governments that feel a responsibility to act on particular environmental issues, but consider themselves incapable of implementing the necessary changes without outside assistance. By extension, for individuals committed to ameliorating ecological degradation, an increased role for transnational municipal networks means local governments could provide a focal point for advancing change on certain issues.

Another lesson to be learned from this analysis is the potential value of framing policy actions on issues like climate change as providing co-benefits for those who enact them. This is to some extent a philosophical argument that mirrors the ecological

modernization literature[50] and is contested by many as ignoring a moral responsibility to respond to environmental damage.[51] However, the discourse of both the PCP Program and its members demonstrates the value of emphasizing the material and non-material interests inherent in confronting climate change as a means of encouraging at least *some* form of policy response. Indeed, by framing the policy solutions as providing co-benefits, municipalities essentially provide an uncontroversial means by which to refute those who criticize the scientific basis for such responses to climate change. As one study I cited in Chapter Two claims, "the most effective way to get municipal governments to mitigate global climate change is by *not* talking about global climate change."[52] The same could hold true for other municipal level environmental initiatives as well.

In a similar sense, if there is one lesson for the Partners for Climate Protection Program in my argument it is the value of a more active approach in order to increase network participation and membership. As I discussed in Chapter Three, the vast majority of PCP members have done little to progress through the milestone process since joining the network. Thus membership numbers do not necessarily define network participation and program success.[53] Furthermore, the total number of PCP members represents only a fraction of all Canadian municipalities. This is likely in part due to the network's tactic, discussed in Chapter Four, of waiting for municipalities to approach it rather than actively seeking out new members. Instead, the network could target municipalities that it believes could make an impact on confronting municipal climate

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[50] Bäckstrand and LövBrand.

[51] Slocum, "Polar Bears and Energy Efficient Light Bulbs."

[52] Betsill, "Mitigating Climate Change," 404.

[53] Betsill and Bulkeley reach the same conclusion. Betsill and Bulkeley, *Cities and Climate Change.*

change by establishing contacts with particular individuals, and by providing documentation on the benefits of municipal climate change policies to municipalities that have not yet implemented a climate change policy. Though resource limitations are likely a factor in a more active approach such as this, by making municipalities more aware of what the network can offer them in terms of instrumental knowledge, the PCP Program could do much to encourage increased network participation.

In addition to these lessons derived from my argument, there are also a number of avenues for future research. Indeed, like Pandora's box, the question considered in this thesis seems to open more doors than it closes. Perhaps the most obvious area for future research is suggested by my argument that the discourse surrounding municipal climate change policy plays a key role in the framing of the issue, the solutions proposed, and the role of particular actors. As I addressed briefly at the end of Chapter Four, it would be interesting to consider how this particular discourse has come to dominate municipal climate change policy by investigating the origins of the interests and constraints that underpin both the network's and municipalities' construction of climate change policy. How these interests and constraints arise will no doubt shed light on the types of actions that municipal policymakers can be expected to take vis-à-vis urban environmental degradation, and could also contribute to a broader theoretical understanding of how a particular form of discourse becomes dominant.[54]

Another important element of my argument is that the influence of both the transnational and local levels in the construction of climate change shows the evolution of the issue from a state-centric focus to include both sub-state and non-state actors. In

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[54] See Loren R. Cass and Mary E. Pettenger, "Conclusion: The Constructions of Climate Change," in Pettenger, 239-240.

this sense, an increased research focus on transnational municipal networks is useful to further our understanding of how environmental issues can be confronted at different and overlapping scales of governance. Furthermore, future research could investigate shifting conceptions of climate change by examining how other groups, such as indigenous peoples, employ discourse to construct the issue.[55] Indeed, this research points to the value of considering an additional element of the municipal construction of climate change policy: the discourse used to frame climate change actions in cities in the developing world. While it is important to consider efforts to address municipal climate change in developed cities like Calgary and Toronto, the world's industrializing cities are significantly larger contributors to global climate change and are where a growing share of global greenhouse gas emissions will occur.[56] Future research may discover that the discourse used to construct climate change policy in cities like Calgary and Toronto might not be appropriate for cities in the developing world, and indeed, may find that similar approaches might even be viewed with suspicion by policymakers in those countries.[57]

In conclusion, this thesis has examined the construction of municipal climate change policy by looking at the participation of two major Canadian cities in a transnational municipal network. I have offered an explanation for variations in Partners for Climate Protection Program participation that focuses on the importance of discourse in framing policy problems and solutions in a particular way, thus privileging certain

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[55] Heather A. Smith, "Disrupting the Global Discourse of Climate Change: The Case of Indigenous Voices," in Pettenger, 198.
[56] Jorge E. Hardoy, Diana Mitlin and David Satterthwaite, *Environmental Problems in Third World Cities* (London: Earthscan, 1992), 122.
[57] Myanna Lahsen, "Trust Through Participation? Problems of Knowledge in Climate Decision Making," in Pettenger, 190.

forms of knowledge over others. I have also offered an argument for transnational municipal networking that construes the relationship between the network and its members as a two-way street, whereby the interests and constraints of both levels influence the actions that are taken. More than this explanation and argument, however, I hope I have also offered an interesting contribution to the burgeoning literature on urban environmental issues in general, and municipal climate change policy in particular. By making a contribution to knowledge in this area and proposing avenues for future research, I hope to contribute to advancements not only in the academic literature, but in the policies that deal with municipal climate change on the ground as well.

Works Cited

Allman, Lee, Paul Fleming and Andrew Wallace. "The Progress of English and Welsh Local Authorities in Addressing Climate Change." *Local Environment* 9, no. 3 (June 2004): 271-283.

Bäckstrand, Karen and Eva LövBrand. "Climate Governance Beyond 2012: Competing Discourses of Governmentality, Ecological Modernization and Civic Environmentalism." In *The Social Construction of Climate Change: Power Knowledge, Norms, Discourses.* Mary E. Pettenger, ed. Burlington, VT: Ashgate, 2007: 123-148.

Bai, Xumei. "Integrating Global Environmental Concerns into Urban Management: The Scale and Readiness Arguments." *Journal of Industrial Ecology* 11, no. 2 (Spring 2007): 15-29.

Becker, Howard S. "The Epistemology of Qualitative Research." In *Ethnography and Human Development: Context and Meaning in Social Inquiry.* A. C. Richard Jessor and Richard Schweder, eds. Chicago: University of Chicago Press, 1996: 53-72.

Betsill, Michele M. "Mitigating Climate Change in US Cities: opportunities and obstacles." *Local Environment* 6:4 (2001): 393-406.

Betsill, Michele M. and Harriet Bulkeley. "Transnational Networks and Global Environmental Governance: The Cities for Climate Protection Program." *International Studies Quarterly* 48 (2004): 471-493.

———. "Cities and the Multilevel Governance of Global Climate Change." *Global Governance* 12 (2006): 141-159.

Brenner, Michael, Jennifer Brown and David Canter, eds. *The Research Interview: Uses and Approaches.* London: Academic Press, 1985.

Bryman, Alan. *Social Research Methods.* New York: Oxford University Press, 2001.

Bulkeley, Harriet. "Down to Earth: local government and greenhouse policy in Australia." *Australian Geographer* 31:3 (2000): 289-308.

Bulkeley, Harriet and Michele M Betsill. "Rethinking Sustainable Cities: Multilevel Governance and the 'Urban' Politics of Climate Change." *Environmental Politics* 14:1 (Feb 2005): 42-63.

———. *Cities and Climate Change: Urban Sustainability and Global Environmental Governance.* New York: Routledge, 2003.

Bulkeley, Harriet, Anna Davies, Bob Evans, David Gibbs, Kristine Kern and Kate Theobald. "Environmental Governance and Transnational Municipal Networks in Europe." *Journal of Environmental Policy & Planning* 5, no. 3 (Sept 2003): 235-254.

Byrne, John, Kristen Hughes, Wilson Rickerson and Lado Kurdgelashvili. "American Policy Conflict in the Greenhouse: Divergent Trends in Federal, Regional, State, and Local Green Energy and Climate Change Policy." *Energy Policy* 35 (2007): 4555-4573.

Canadian Climate Impacts and Adaptation Research Network. "Adapting to Climate Change: An Introduction for Canadian Municipalities." 2006. http://www.c-ciarn.ca/primer_website/download.html Accessed 30 March 2007.

Cass, Loren R. and Mary E. Pettenger. "Conclusion: The Constructions of Climate

Change." In *The Social Construction of Climate Change: Power Knowledge, Norms, Discourses*. Mary E. Pettenger, ed. Burlington, VT: Ashgate, 2007: 218-235.

Causley, Devin. Federation of Canadian Municipalities. Interview by author. Ottawa, ON. 19 September 2007.

Checkel, Jeffrey. "The Constructivist Turn in International Relations Theory." *World Politics* 50, no. 2 (1998): 324-348.

City of Calgary. *Calgary Climate Change Action Plan Target 50: The City of Calgary Corporate and Community Outlook on Climate and Air Quality Protection.* July 2006. http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_-_PCP/PCP_Members_Inventory_Action_Plans/calgary_action_plan.pdf. Accessed 26 July 2007.

———. *State of the Environment Report, 2006.* 2006. http://www.calgary.ca/docgallery/bu/environmental_management/2002_state_of_the_environment_report.pdf. Accessed 1 August 2007.

———. *The City of Calgary 2003 Corporate Greenhouse Gas Emissions Inventory.* January 2005. http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_-_PCP/2003_Corp_Emissions_Report_PCP_ICLEI.pdf. Accessed 26 July 2007.

———. *State of the Environment Report, 2002.* 2002, http://www.calgary.ca/docgallery/bu/environmental_management/2002_state_of_the_environment_report.pdf. Accessed 1 August 2007.

———. "Action Plan: Part 1: Baseline Inventory." 26 January 1998. http://www.ghgregistries.ca/registry/out/C0010-26JAN98-PLN.PDF. Accessed 31 July 2007.

City of Toronto. "Climate Change, Clean Air and Sustainable Energy Action Plan: Moving From Framework to Action, Staff Report." 13 June 2007. http://www.toronto.ca/legdocs/mmis/2007/pe/bgrd/backgroundfile-4982.pdf. Accessed 11 August 2007.

———. *Greenhouse Gases and Air Pollutants in the City of Toronto: Toward a Harmonized Strategy for Reducing Emissions.* June 2007. http://www.toronto.ca/taf/pdf/taf-inventory-0606.pdf. Accessed 11 August 2007.

———. "Toronto Atmospheric Fund." 2007. http://www.toronto.ca/taf/index.htm. Accessed 21 October 2007.

———. "Mayor David Miller's Inaugural Address." 5 December 2006. http://www.toronto.ca/mayor_miller/speeches/inaugural_address06.htm. Accessed 21 October 2007.

———. "Mayor's Roundtable on the Environment: Progress Report." May 2005. http://www.toronto.ca/committees/rt_environment/report_2005_may.htm. Accessed 11 August 2007.

———. "Moving Towards Kyoto: Toronto's Emissions Reductions 1990-1998, Technical Report." 22 April 2003. http://www.toronto.ca/taf/pdf/moving_towards_kyoto_techreport.pdf. Accessed 11 August 2007.

Climate Group, The. *Low Carbon Leader: Canada, December 2005.* 2005. http://theclimategroup.org/assets/resources/low_carbon_leader_canada.pdf Accessed 30 July 2007.

Collier, Ute and Ragnar E. Lofstedt. "Think Globally, Act Locally? Local Climate Change and Energy Policies in Sweden and the UK." *Global Environmental Change* 7, no. 1 (1997): 25-40.

Davies, Anna R. "Local Action for Climate Change: Transnational Networks and the Irish Experience." *Local Environment* 10, no. 1 (Feb 2005): 21-40.

Deangelo, Benjamin J. and L.D. Danny Harvey. "The Jurisdictional Framework for Municipal Action to Reduce Greenhouse Gas Emissions: Case Studies from Canada, the USA and Germany." *Local Environment* 3, no. 2 (1998): 111-136.

Denzin, Norman and Yvonna S. Lincoln. "Introduction: The Discipline and Practice of Qualitative Research." In *The Landscape of Qualitative Research: Theories and Issues*. Same, eds. Thousand Oaks, CA: Sage, 2003: 1-46.

Devine, Fiona and Sue Heath. *Sociological Research Methods in Context*. London: Macmillan Press, 1999.

Ebbinghaus, Bernhard. "When Less is More: Selection Problems in Large-N and Small-N Cross-National Comparisons." *International Sociology* 20, no. 2 (2005): 133-152.

Eckerberg, Katarina and Marko Joas. "Multi-level Environmental Governance: A Concept Under Stress?" *Local Environment* 9, no. 5 (Oct 2004): 405-412.

Evans, Bob, Marko Joas, Susan Sundback and Kate Theobald. *Governing Sustainable Cities*. London: Earthscan, 2005.

Fay, Chris. "Thinking *Locally*, Acting *Globally*: Lessons to Learn from the Cities for Climate Protection Campaign." Paper Presented at the 2007 New York State Political Science Association Conference. Poughkeepsie, NY. April 21, 2007.

Federation of Canadian Municipalities. "About Partners for Climate Protection." 2008. http://www.sustainablecommunities.fcm.ca/Partners-for-Climate-Protection. Accessed 1 March 2008.

———. "PCP Members and Milestone Status." 2008. http://www.sustainablecommunities.fcm.ca/Partners-for-Climate-Protection/MilestoneStatus.asp. Accessed 2 March 2008.

———. "About the Green Municipal Fund." 2007. http://www.sustainablecommunities.fcm.com/GMF/default.asp. Accessed 26 July 2007.

———. "Council Joining Resolution." 2007. http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_-_PCP/pcp-council-resolution_to_join.pdf. Accessed 15 October 2007.

———. "PCP A Five-Milestone Framework." 2007. http://www.sustainablecommunities.fcm.ca/Capacity_Building/Energy/PCP/PCP_Milestone.asp. Accessed 26 July 2007.

———. " Quick Action Guide: Municipal Action on Climate Protection." 2005. http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_-_PCP/pcp-quick-action-guide-En.pdf. Accessed 30 March 2007.

———. *Ecological Footprints of Canadian Municipalities and Regions*. January 2005. http://www.anielski.com/Documents/EFA%20Report%20FINAL%20Feb%202.pdf. Accessed 16 October 2007.

———. "Partners for Climate Protection Annual Report 2004-2005." 2005.

http://www.sustainablecommunities.fcm.ca/files/Capacity_Building__PCP/PCP_Annual_Report_2004-2005_Eng.pdf. Accessed 30 March 2007.

———. "The Business Case for Cutting Greenhouse Gas Emissions from Municipal Operations." June 2003. http://www.sustainablecommunities.fcm.ca/files/PDF/PCP_Business_Case_En_FINAL.pdf. Accessed 30 March 2007.

Feindt, Peter H. and Angela Oels. "Does Discourse Matter? Discourse Analysis in Environmental Policy Making." *Journal of Environmental Policy & Planning* 7, no. 3 (Sept 2005): 161-173.

Finnemore, Martha. *National Interests in International Society.* Ithaca, NY: Cornell University Press, 1996.

Fleming, P.D. and P.H. Webber. "Local and Regional Greenhouse Gas Management." *Energy Policy* 32 (2004): 761-771.

Gibbs, David, Andy Jonas and Aidan While. "Changing Governance Structures and the Environment: Economy-Environment Relations at the Local and Regional Scales." *Journal of Environmental Policy & Planning* 4 (2002): 123-138.

Goldstone, Jack. "Methodological Issues in Comparative Macrosociology." *Comparative Social Research* 16 (1997): 107-120.

Gonzalez, George A. *The Politics of Air Pollution: Urban Growth, Ecological Modernization, and Symbolic Inclusion.* Albany: SUNY University Press, 2005.

Gough, Clair and Simon Shackley. "The Respectable Politics of Climate Change: The Epistemic Communities and NGOs." *International Affairs* 77, no. 2 (2001): 329-345.

Griffin, Larry and Charles C. Ragin. "Some Observations on Formal Methods of Qualitative Analysis." *Sociological Methods & Research* 23, no. 1 (Aug 1994): 4-21.

Grundmann, Reiner. "Climate Change and Knowledge Politics." *Environmental Politics* 16, no. 3 (June 2007): 414-432.

Haas, Peter M. "Introduction: Epistemic Communities and International Policy Coordination." *International Organization* 46, no.1 (Winter 1992): 1-35.

Haas, Peter M., Robert O. Keohane and Marc A. Levy, eds. *Institutions for the Earth: Sources of Effective International Environmental Protection.* Boston: MIT Press, 1993.

Hajer, Maarten. *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process.* Oxford: Clarendon Press, 1995.

Hajer, Maarten and Wytske Versteeg. "A Decade of Discourse Analysis of Environmental Politics: Achievements, Challenges and Perspectives." *Journal of Environmental Policy & Planning* 7, no. 3 (Sept 2005): 175-184.

Hall, Peter A. "Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain." *Comparative Politics* 25, no. 3 (April 1993): 275-296.

Harding, Alan. "North American Urban Political Economy, Urban Theory and British Research." *British Journal of Political Science* 29, no. 4 (1999): 673-698.

Hardoy, Jorge E., Diana Mitlin and David Satterthwaite. *Environmental Problems in Third World Cities.* London: Earthscan, 1992.

Harvey, L.D. Danny. "Tackling Urban CO2 Emissions in Toronto." *Environment* 35, no. 7 (1993): 16-20, 38-44.

Hasenclaver, Andreas, Peter Mayer and Volker Rittberger. *Theories of International*

Regimes. Cambridge: Cambridge University Press, 1997.
Hooghe, Liesbet and Gary Marks. "Unraveling the Central State, but How? Types of Multi-level Governance." *American Political Science Review* 97, no. 2 (May 2003): 233-243.
Hopf, Ted. "The Promise of Constructivism in International Relations Theory." *International Security* 23, no. 1 (Summer 1998): 171-200.
International Council for Local Environmental Initiatives. "About CCP." 2008. http://www.iclei.org/index.php?id=800.html. Accessed 1 March 2008.
———. "CCP Participants." 2008. http://www.iclei.org/index.php?id=809. Accessed 1 March 2008.
———. "What We Do." 2008. http://www.iclei.org/index.php?id=742. Accessed 1 March 2008.
———. "CCP Resources." 2007. http://www.iclei.rog/index.php?id=1247. Accessed 15 October 2007.
———. "How it Works." 2007. http://www.iclei.rog/index.php?id=810. Accessed 15 October 2007.
———. "2003 Triennial Report." 2003. http://www.iclei.org/documents/iclei_ tiennial_00_03.pdf. Accessed 4 November 2006.
———. "Cities for Climate Protection: An International Campaign to Reduce Urban Emissions of Greenhouse Gases." 15 February 1993. http://www.iclei.org/ index.php?id=1651. Accessed 7 November 2006.
———. "1991-1993 Biennial Report." 1993. http://www.iclei.org/documents/Global/ Biennial91-93.pdf. Accessed 14 October 2007.
Jaggers, Sverker C. and Johannes Stripple. "Climate Governance Beyond the State." *Global Governance* 9, no. 3 (2003): 385-399.
Jeffrey, Charlie. "Sub-national Mobilization and European Integration: Does it Make Any Difference?" *Journal of Common Market Studies* 38 (2000): 1-23.
Kates, Robert W. and Ralph D. Torrie. "Global Change in Local Places." *Environment* 40, no.2 (1998): 5, 39-41.
Keck, Margaret and Kathryn Sikkink. *Activists Beyond Borders: Advocacy Networks in International Politics*. Cornell: Cornell University Press, 1998.
King, Gary, Robert O. Keohane and Sidney Verba. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton: Princeton University Press, 1994.
King, Michael R. "Epistemic Communities and the Diffusion of Ideas: Central Bank Reform in the United Kingdom." *West European Politics* 28, no. 1 (Jan 2005): 94-123.
Kuczaj, Sonia. "Calgary's Big Science Project." *Calgary Herald*. 6 June 2005. ME 08.
Laferriere, Eric and Peter Stoett. *International Relations Theory and Ecological Thought: Towards a Synthesis*. New York: Routledge, 1999.
Lahsen, Myanna. "Trust Through Participation? Problems of Knowledge in Climate Decision Making." In *The Social Construction of Climate Change: Power Knowledge, Norms, Discourses*. Mary E. Pettenger, ed. Burlington, VT: Ashgate, 2007: 173-196.
Lambright, W. H., S. A. Changnon and L. D. Harvey. "Urban Reactions to the Global Warming Issue: Agenda Setting in Toronto and Chicago." *Climatic Change* 34 (1996): 463–478.

Lieberson, Stanley. *Making it Count: The Improvement of Social Research and Theory.* Berkeley: University of California Press, 1985.

———. "Small N's and Big Conclusions: An Examination of the Reasoning in Comparative Studies Based on a Small Number of Cases." *Social Forces* 70, no. 2 (1991): 307-320.

Lightbody, James. *City Politics, Canada.* Peterborough, ON: Broadview Press, 2006.

Lindseth, Gard. "Local Level Adaptation to Climate Change: Discursive Strategies in the Norwegian Context." *Journal of Environmental Policy & Planning* 7, no. 1 (March 2005): 61-83.

———. "The Cities for Climate Protection Campaign (CCPC) and the Framing of Local Climate Policy." *Local Environment* 9, no. 4 (Aug 2004): 325-336.

Lipschutz, Ronnie. "Reconstructing World Politics: The Emergence of Global Civil Society." *Millennium: Journal of International Studies* 21, no. 3 (Dec 1992): 389-420.

Litfin, Karen. *Ozone Discourses: Science and Politics in Global Environmental Cooperation.* New York: Columbia University Press, 1994.

Logan, John R. and Harvey L. Molotch. *Urban Fortunes: The Political Economy of Place.* Berkeley: University of California Press, 1987.

Lovell, Heather. "Framing Sustainable Housing as a Solution to Climate Change." *Journal of Environmental Policy & Planning* 6, no. 1 (March 2005): 35-55.

Mahoney, James. "Strategies of Causal Assessment in Comparative Historical Analysis." In *Comparative Historical Analysis in the Social Sciences.* James Mahoney and Dietrich Rueschemeyer, eds. Cambridge: Cambridge University Press, 2003: 337-372.

———. "Strategies of Causal Inference in Small-*N* analysis." *Sociological Methods & Research* 28, no. 4 (May 2000): 387-424.

McAllister, Mary Louise. *Governing Ourselves? The Politics of Canadian Communities.* Vancouver: UBC Press, 2004.

Morgan, Christopher. City of Toronto. Interview by author. Toronto, ON. 24 September 2007.

Neuman, W. Lawrence. *Social Research Methods: Qualitative and Quantitative Approaches, 6th ed.* Toronto: Allyn and Bacon, 2005.

Parkinson, Sarah and Mark Roseland. "Leaders of the Pack: An Analysis of the Canadian 'Sustainable Communities' 2000 Municipal Competition." *Local Environment* 7, no. 4 (2002): 411-429.

Paterson, Matthew and Johannes Stripple. "Singing Climate Change into Existence: On the Territorialization of Climate Policymaking." In *The Social Construction of Climate Change: Power Knowledge, Norms, Discourses.* Mary E. Pettenger, ed. Burlington, VT: Ashgate, 2007: 149-172.

Peters, Guy and Jon Pierre. "Developments in Intergovernmental Relations: Towards Multi-level Governance." *Policy and Politics* 29, no. 2 (2001): 131-135.

Price, Richard. "Transnational Civil Society and Advocacy in World Politics." *World Politics* 55 (July 2003): 579-606.

Putnam, Robert. "Diplomacy and Domestic Politics: The Logic of Two-Level Games." *International Organization* 42, no. 3 (Summer 1988): 427-460.

Rabe, Barry G. "Beyond Kyoto: Climate Change Policy in Multi-Level Governance Systems." *Forthcoming.*

Reese, Laura A. "The Planning-Policy Connection in US and Canadian Economic Development." *Environment and Planning C* 24 (2006): 553-573.

Risse-Kappen, Thomas. *Bringing Transnational Relations Back In: Non-State Actors, Domestic Structures and International Institutions.* Cambridge: Cambridge University Press, 1995.

Robinson, Pamela J. and Christopher D. Gore. "Barriers to Canadian Municipal Response to Climate Change." *Canadian Journal of Urban Research* 14, no. 1 (2005): 102-120.

Sabatier, Paul and Hank Jenkins-Smith. "The Advocacy Coalition Framework: An Assessment." In *Theories of the Policy Process*, Paul A. Sabatier, ed. Boulder, CO: Westview, 1999: 117-166.

Schlager, Edella. "A Comparison of Framework, Theories, and Models of Policy Processes." In *Theories of the Policy Process*, Paul A. Sabatier, ed. Boulder, CO: Westview Press, 1999: 233-260.

Schostak, John. *Interviewing and Representation in Qualitative Research.* New York: McGraw-Hill, 2006.

Selin, Henrik and Stacy D. VanDeveer. "Canadian-US Cooperation: Regional Climate Change Action in the Northeast." In *Bilateral Ecopolitics: Continuity and Change in Canadian-American Environmental Relations.* Peter Stoett and Philippe La Prestre, eds. Burlington, VT: Ashgate, 2006: 93-113.

Shymanski, Rob. City of Calgary. Interview by author. Calgary, AB. 25 September 2007.

Sierra Legal. "The Municipal Powers Report: Municipal By-Laws and Best Practices For Community Health and Environmental Protection in Canada." 24 May 2007. http://www.sierralegal.org/reports/municipalpowers_report_may2007.pdf. Accessed 31 July 2007.

Slaughter, Anne-Marie. "The Real New-World Order." *Foreign Affairs* 76, no. 5 (Sept/Oct 1997): 183-197.

Slocum, Rachel. "Polar Bears and Energy-efficient Lightbulbs: Strategies to Bring Climate Change Home." *Environment and Planning D: Society & Space* 22, no. 3 (June 2004): 413-438.

————. "Consumer Citizens and the Cities for Climate Protection Campaign." *Environment and Planning A* 36:5 (2004): 763-782.

Smith, Heather A. "Disrupting the Global Discourse of Climate Change: The Case of Indigenous Voices." In *The Social Construction of Climate Change: Power Knowledge, Norms, Discourses.* Mary E. Pettenger, ed. Burlington, VT: Ashgate, 2007: 197-216.

Sorensen, Andre, Peter J Marcotullio and Jill Grant. "Towards Sustainable Cities." In *Towards Sustainable Cities: East Asian, North American and European Perspectives on Managing Urban Regions.* Same, eds. Burlington, VT: Ashgate, 2004: 3-23.

Statistics Canada. "2006 Community Profiles, Calgary." 2006. http://www12.statcan.ca/english/census06/data/profiles/community/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4806016&Geo2=PR&Code2=48&Data=Count&SearchText=calgary&SearchType=Begins&SearchPR=01&B1=All&Custom=. Accessed 16 October 2007.

———. "2006 Community Profiles, Toronto." 2006. http://www12.statcan.ca/english/census06/data/profiles/community/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=3520005&Geo2=PR&Code2=35&Data=Count&SearchText=toronto&SearchType=Begins&SearchPR=35&B1=All&Custom=. Accessed 20 October 2007.

Stren, Richard. "A Comparative Approach to Cities and the Environment." In *Sustainable Cities: Urbanization and the Environment in International Perspective*. Richard Stren, Rodney White and Joseph Whitney, eds. San Francisco: Westview, 1992: 1-7.

Stoett, Peter and Philippe La Prestre. "From Neglect to Concern: The Study of Canadian-American Ecopolitics." In *Bilateral Ecopolitics: Continuity and Change in Canadian-American Environmental Relations*. Same, eds. Burlington, VT: Ashgate, 2006: 1-17.

Swyngedouw, Erik. "Neither Global nor Local: 'Glocalization and the Politics of Scale." In *Spaces of Globalization: Reasserting the Power of the Local*, Kevin Cox, ed. New York: Guilford Press, 1997: 137-166.

Turner, Chris. "The Secret Greening of Calgary." *Globe and Mail*. 15 September 2007. F1. Montreal Edition.

UN Habitat. *Cities in a Globalizing World: A Global Report on Human Settlements* London: Earthscan, 2002.

———. "Urban Environment." September 2006. http://www.unhabitat.org/pmss/getPage.asp?page=periodView&period=2221. Accessed 4 November 2006).

———. "Ecosystems and Biodiversity: The Role of Cities Involvement." 2006. http://www.unhabitat.org/pmss/getPage.asp?page=promoView&promo=2225. Accessed 4 November 2006.

Van Evera, Stephen. *Guide to Methods for Students of Political Science*. Ithaca: Cornell University Press, 1997.

VandeWeghe, Jared R. and Christopher Kennedy. "A Spatial Analysis of Residential Greenhouse Gas Emissions in the Toronto Census Metropolitan Area." *Journal of Industrial Ecology* 11, no. 2 (Spring 2007): 133-144.

Von Seht, Hauke. "Socio-economic Impacts of Local Environmental Policies: An Analysis for the Field of Climate Protection." *Local Environment* 7, no. 1, 2002: 23-34.

Wapner, Paul. Environmental Activism and World Civic Politics. Albany: SUNY Press, 1996.

Wilbanks, Thomas J. and Robert W. Kates. "Global Change in Local Places: How Scale Matters." *Climatic Change* 43, no. 3 (1999): 601-628.

Wilson, Elizabeth. "Developing UK Spatial Planning Policy to Respond to Climate Change." *Journal of Environmental Policy & Planning* 8, no. 1 (Mar 2006): 9-25.

———. "Adapting to Climate Change at the Local Level: The Spatial Planning Response." *Local Environment* 11, no. 6 (Dec 2006): 609-625.

Yarnal, Brent, Robert E. O'Connor and Robin Shudak. "The Impact of Local versus National Framing on Willingness to Reduce Greenhouse Gas Emissions: A Case Study from Central Pennsylvania." *Local Environment* 8, no. 4 (Aug 2003): 457-469.

Zlotnik, Hania. "World Urbanization: Trends and Prospects." In *New Forms of Urbanization: Beyond the Urban-Rural Dichotomy*. Tony Champion and Graeme Hugo, eds. Burlington, VT: Ashgate, 2004: 43-64.

Appendix One – Interview Information

Interviews Conducted

Causley, Devin. Partners for Climate Protection Program Administrator, Federation of Canadian Municipalities. Interview by author. Ottawa, ON. 19 September 2007.

Morgan, Christopher. Senior Air Quality Specialist, Air Quality and Climate Change Branch, Toronto Environment Office, City of Toronto. Interview by author. Toronto, ON. 24 September 2007.

Shymanski, Rob. Environmental Specialist, Environmental Management, City of Calgary. Interview by author. Calgary, AB. 25 September 2007.

General Interview Questions

What is your background and area of expertise? What is your history with the program/municipality?
Why has climate change emerged as an important issue for municipal governments?
What encourages municipalities to establish a climate change policy?
How is your program/municipality addressing climate change?
Has climate change policy been institutionalized in any way in your program/municipality?
What role does political support play in your municipality's climate change policy? Can you identify specific politicians who support/oppose the policy?
How does your municipality engage with the business community in developing climate change policy?
How does your municipality engage with the community in general in developing climate change policy?
What is your municipality's history with the Partners for Climate Protection Program?
What role does the PCP Program play in your municipality's climate change policy?
Why has your PCP participation progressed at the rate it has?
Why do the PCP Program and municipal climate change policy distinguish between corporate and community greenhouse gas emissions?
What are barriers to participating in the PCP Program?
What does your municipality gain from participating in the PCP Program?