North American Climate Governance:
NAFTA, Electricity Generation and GHG Emissions

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Over the past decade, the governance of global climate change has evolved into a complex system of multilevel governance. While the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol arguably sit at the core of this system, an array of other arrangements have developed in multiple tiers (from the global to the local) and spheres (public and private) of governance (forthcoming, 263). Conceptualizing global environmental governance as a multilevel system calls our attention to the fact that problems such as climate change cannot be solved by action at any single level or sphere. Rather, Young (2002, 266) argues, "In most cases, the key to success lies in allocating specific tasks to the appropriate level of social organization and then taking steps to ensure that cross-scale interactions produce complementary rather than conflicting actions." In other words, he contends that the effectiveness of governance processes at any given level are depends on the interplay of governance institutions at various levels. This paper extends this argument by illustrating the ways that institutional interplay also shapes the development of governance arrangements in the first place.

The North American Commission for Environmental Cooperation (CEC), the environmental organ of the North American Free Trade Agreement (NAFTA) regime has begun exploring emissions trading as a policy option for mitigating the environmental impact of electricity generation. Electricity generation is a significant and growing source of GHG emissions in North America, accounting for 39% of CO2 emissions in the US, 22% in Canada and 30% in Mexico (Miller and Van Atten 2004). Demand for electricity is expected to increase in the future with subsequent implications for emissions. Although these discussions are still preliminary, this paper considers what a North American emissions trading system situated in the NAFTA regime might look like. It argues that the choice of emissions trading as a preferred policy option is a function of the CEC being situated in the broader context of the NAFTA regime with its central focus on trade liberalization. Moreover, I find that choices related to the design of a North American emissions trading system are constrained by the existence of related governance arrangements at the global, regional, and national scales.

The paper begins with a brief discussion of multilevel governance and in particular, the idea of institutional interplay. I then turn to the issue of GHG emissions in the North American electricity generation sector and review the CEC's consideration of how to address the issue of climate change in this sector, which to date has focused heavily on emissions inventories and emissions trading as a way of addressing general air quality issues. Given the centrality of emissions trading in current CEC discussions, I then examine a number of design issues, drawing heavily on the model of the European Emissions Trading Scheme (ETS). In the conclusion, I return to the issue of institutional interplay in the development of environmental governance processes in a multilevel governance system.

Multilevel Governance and Institutional Interplay

Where international relations scholars once assumed that "global" problems should be governed by "global" institutions, there is now greater recognition that the scale of the problem does not necessarily dictate the scale of governance. The governance of global environmental issues is increasingly

characterized by vertical and horizontal fragmentation (Biermann 2005; Bulkeley and Betsill 2005). The concept of multilevel governance is perhaps best developed in the context of the European Union, where Hooghe and Marks (2003) have identified two types of multilevel governance. Type I arrangements refer to the multiple tiers in which governance processes take place, distinguishing between a hierarchy of institutions from the local to the global scale. These institutions are seen to be relatively autonomous, dominated largely by public actors (e.g. governments). Type II multilevel governance highlights the various spheres (e.g. public, private, networks) in which governance takes place. The concept of multilevel governance is increasingly applied to analyze the governance of global environmental issues (Betsill and Bulkeley forthcoming). Such an approach calls attention to the fact that governance may occur in multiple places simultaneously and highlights the difficulty of managing resources at any single level (Berkes 2002).

In a situation of multilevel governance, effective management of the environment and natural resources requires integration between the various governance arrangements. Young (2002, 263) argues,

> …as the density of institutions operating in a social space increases, the likelihood of interplay between or among distinct institutions rises. In complex societies, institutional interplay is a common occurrence; the resultant interactions can be expected to loom large as determinants of the performance of individual institutions…

Institutional interplay takes place horizontally (across space) and vertically (across levels of social organization) (Berkes 2002; Young 2002). Bressers and Rosenbaum (2003, 14) observe that such interactions constitute multiple "games" which affect "the overall incentive structure of those affected by the governance."

The emerging literature on institutional interplay points to the futility of analyzing governance arrangements at any given level in isolation. A central claim is that institutional interplay is a key determinant in the policy implementation phase, ultimately shaping the effectiveness of a governance arrangement in any given sphere or tier. The literature also suggests that institutional interplay is neither inherently positive nor negative in terms of facilitating governance. There is also some suggestion that institutional interplay involves some asymmetry, with institutions at one level dominating institutions at other levels (see also Young 2002).

Ultimately, the question of how governance arrangements in given sphere or tier are shaped by arrangements in other spheres and tiers is an empirical question. In the following section, I consider the development of a governance system to mitigate GHG emissions from the North American electricity sector. In this analysis, it becomes clear that the existence of related governance arrangements significantly constrains the range of options available to North American decision makers in designing this governance system. In other words, institutional interplay not only shapes the effectiveness of governance arrangements, but it also has an important influence on the development of governance arrangements in the first place.

North American Climate Governance

While the most highly institutionalized system of regional (inter-state, continental scale) climate governance is found in the EU, there have been some initial discussions about climate governance in the North American context. Specifically, the CEC is exploring the possibility of developing an emissions trading system to mitigate the environmental impacts of the electricity generation sector. This section introduces this sector and its impact on regional GHG emissions then reviews the CEC discussions about how to mitigate these impacts, which has identified emissions trading as the preferred policy option. In examining the issues involved in designing such a system, it becomes clear that institutional interplay, both horizontally and vertically, will limit the range of choices available to CEC decision makers.

Electricity generation and GHG emissions

North America accounts for over half of all electricity production and consumption in the industrialized world (Dukert 2002). In Canada, the US and Mexico, electricity generation is a significant (and growing) source of GHG emissions, contributing to the problem of global climate change. The

electricity market has experienced rapid change over the past decade in the form of increased trade and rising demand (Commission for Environmental Cooperation (CEC) 2002; Dukert 2002; Ferretti 2002; McKinney 2000). These activities take place within the shadow of NAFTA, a multilateral treaty designed to remove barriers to trade and investment and to promote trade integration between its Member States (Johnson and Beaulieu 1996; Mumme and Lybecker 2002). The treaty entered into force 1 January 1994, and in its first five years, trade between NAFTA's Member States increased 75 percent; US-Mexico trade increased by 113 percent (Mumme and Lybecker 2002).

NAFTA rules of relevance to the electricity sector are set forth in Chapters 3, 6 and 11 of the treaty (Horlick, Schuchhardt, and Mann 2002). Under NAFTA, electricity generation is treated as a good (rather than a service) and is thus subject to Chapter 3 provisions on national treatment and market access. Specifically, each country is expected to extend national treatment to electricity produced in a member state. Chapter 6 on energy and petrochemicals restricts the application of duties, taxes or other charges on energy exports. They are permitted only if imposed on exports to all members equally and on goods consumed domestically. Chapter 11 sets forth the right of any investor to establish themselves in any market, although Mexico has entered a reservation on the application of these rules for the electricity sector. In Mexico, electricity is recognized as a public service controlled by the state; private investment is restricted (Horlick, Schuchhardt, and Mann 2002). Finally, NAFTA introduced tariff reductions for capital equipment in the electricity sector. These reductions were most significant in the case of Mexico; tariffs in the US and Canada were already low due to their earlier free-trade agreement.

While NAFTA's trade and investment rules have created a level of stability that facilitates cross-border trade, several observers suggest that overall, the changes in the electricity sector are largely attributable to a general trend of liberalization and convergence in competitiveness and trade policy in the region (globalization), a finding confirmed in a CEC special report on the electricity sector (Commission for Environmental Cooperation (CEC) 2002; Dukert 2002; McKinney 2000).

Integration of electricity markets is likely to continue and generation capacity is expected to expand in North America to meet rising demands (Commission for Environmental Cooperation (CEC) 2002; Ferretti 2002). According to the CEC (2002), "Utilities, private developers and energy planners currently have announced plans (as of August 2001) to build nearly 2,000 new power generating units in North America by the year 2007. This represents roughly a 50% increase over current installed capacity." While only a fraction of these proposed facilities are likely to come into existence, their location and type of fuel used will have significant implications for national and regional GHG emissions. By one estimation, Mexico's CO_2 emissions from new capacity could increase between 29 and 53% above 2000 levels (Commission for Environmental Cooperation (CEC) 2002).

The relationship between market integration, expansion of generating capacity and GHG emissions is by no means straightforward. Integration of electricity markets and increased trade could lead to the removal of investment barriers, turnover of capital stock and more rapid diffusion of clean technologies (Commission for Environmental Cooperation (CEC) 2002; Dukert 2002; McKinney 2000; Mumme and Lybecker 2002). At the same time these market forces could advantage cheap energy sources and least-cost producers. While current plans to expand generating capacity in Mexico rely primarily on natural gas, the US experience suggests that competition favors coal (Commission for Environmental Cooperation (CEC) 2002; Dukert 2002). Several factors will shape whether and how market integration, trade, and expansion of generating capacity will affect GHG emissions: fuel choice, price, infrastructure, market access, standards and regulations, and issues related to grid access (CEC 2002). In the following section, I turn consider the development of standards and regulations in the CEC.

The CEC and climate change

Within the NAFTA regime, there have been some preliminary discussions about mitigating GHG emissions in the electricity sector. These have taken place primarily in the CEC, NAFTA's environmental organ. As NAFTA was being negotiated in the early 1990s, there was opposition from labor and environmental groups concerned about the social and ecological impacts of increased trade in North America. As a result, it became necessary to negotiate several "side agreements" including the North

American Agreement on Environmental Cooperation (NAAEC), the North American Agreement on Labor Cooperation and an agreement between the US and Mexico to form the Border Environmental Cooperation Commission.

The NAAEC aims to facilitate environmental cooperation between NAFTA Member States through the creation of new institutions and by providing a forum for establishing new environmental obligations (Johnson and Beaulieu 1996; Mumme and Lybecker 2002). Consistent with the NAFTA treaty, the NAAEC is based on a core set of neoliberal economic assumptions: trade will increase prosperity, environmental protection is an important part of prosperity, and trade will create greater resources for environmental protection (Ferretti 2002). The NAAEC is an effort to manage the economic growth associated with trade liberalization in an environmentally sustainable way; it also allows for action on the environment beyond trade. The NAAEC created the CEC, which has become the primary mechanism for addressing environmental concerns within the NAFTA regime.[1]

Admittedly, CEC discussions related to mitigating GHG emissions are in their infancy and climate change is by no means at the top of the CEC agenda. While climate change has not been addressed directly, climate-related issues have been taken up by the Environment, Economy and Trade Program as well as the Pollutants and Health Program. To date, the CEC's discussions of climate change have focused heavily on emissions inventories and trading in the electricity sector. The CEC Council (consisting of the environmental ministers from each Member State) has passed two resolutions related to climate change. Resolution 95-6, "Statement of Intent to Cooperate on Climate Change and Joint Implementation," and Resolution 01-05, "Promoting Comparability of Air Emissions Inventories," which call for coordination, especially in the area of developing common methodologies for emissions inventories and forecasts (CEC 1995, 2001).

In 2002, the CEC Secretariat released a special report entitled, "Environmental Challenges and Opportunities of the Evolving North American Electricity Market." The report was the product of an initiative launched by the CEC in 2000 under Article 13 of the NAAEC, which states that the Secretariat can prepare a report on "any matter within the scope of its annual work program."[2] This initiative had three main objectives: 1) to examine the environmental aspects of the evolving electricity market in the region; 2) to examine the potential for "green electricity" in North American markets; and 3) to foster a dialogue among stakeholders on the environmental aspects of the electricity market (Commission for Environmental Cooperation (CEC) 2002). The process was overseen by an advisory board, chaired by former Congressman Phil Sharp, and involved the production of many working, background and discussion papers and three public events.[3]

The central question for the CEC's electricity initiative was "How can we ensure that North Americans have an affordable and abundant supply of electricity without compromising environmental and health objectives?" (Commission for Environmental Cooperation (CEC) 2002). The report identified a "clear trend towards convergence in competitiveness and trade policy underway in North America" and the need for an environmental "safety net" to deal with uncertainties about the electricity sector (Commission for Environmental Cooperation (CEC) 2002). It suggests that market-based mechanisms may be effective at the regional scale and that there is opportunity for win-win solutions through a coordinated policy framework for energy efficiency and renewable energy sources.

The report contains several recommendations directly related to climate change, calling on governments in North America to:

- develop North American greenhouse gas inventories that can support the integrity of joint implementation projects and greenhouse gas emissions trading policies;

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[1] The NAFTA treaty itself also contains some environmental provisions. See Johnson and Beaulieu (1996), Mumme and Lybecker (2002), Sanchez (2002), and Stevis and Mumme (2000).

[2] See the CEC website for text of the NAAEC <http://www.cec.org>.

[3] Copies of these papers and information on the public events are available on the CEC's website <http://www.cec.org>.

- establish a framework of necessary elements for a greenhouse gas trading regime in North America, designed and governed by principles that ensure transparency, measurable and meaningful environmental benefits and economic efficiency;
- demonstrate, through North American pilot programs, that carbon trading can generate resources for Mexico to accelerate investment, capital turnover and state-of-the-art pollution control technologies (CEC 2002).

In 2002, the Council agreed to include some items from the report in the 2003 CEC work plan, including a call for comparative studies of North American air quality management standards, regulation and planning; compatibility of standards for construction and operation of electricity generation facilities; and opportunities for emissions trading (JPAC 2003). Most recently, the CEC issued a report detailing 2002 emissions of SO_2, NO_x, mercury and CO_2 for individual power plants in Canada, the US and Mexico (Miller and Van Atten 2004). This report was a direct result of both Council Resolution 01-05 and the "Environmental Challenges" report.

Politically, linking climate governance to air quality and the electricity sector makes sense. NAFTA member states have a greater commonality of interests about the environmental impacts of electricity generation than climate change (Betsill under review). In North America, there is no common approach to climate change, and governance processes at different scales are largely autonomous. National governments have developed domestic climate policies independently of one another, and each country has a distinct approach. In the US, climate governance focuses on reducing the carbon intensity of the American economy, primarily through the use of voluntary programs, and scientific research (U.S. Department of State 2002). The Canadian system is designed to achieve its Kyoto target (6 percent reduction) and "become the most sophisticated and efficient consumers and producers of energy in the world and leaders in the development of new, cleaner technologies" (Government of Canada 2002). Their approach combines government regulation and strategic investments to help achieve emissions reductions in a cost-effective manner. Mexican climate policy has focused heavily on developing an emissions inventory, mitigation projects in the forest and energy sectors, and participation in Activities Implemented Jointly projects under the UNFCCC (Instituto Nacional de Ecología 2001).

At the international level, Canada, the US and Mexico have not coordinated their negotiating positions. Mexico participates in the UNFCCC and Kyoto Protocol negotiations as a developing country, while the US and Canada often worked together under the JUSCANZ/JUSSCANNZ[4] coalition as well as the "Umbrella Group" (Oberthür and Ott 1999). In both groups, membership was based on common concerns about the economic implications of climate mitigation rather than any regional affinities. Today, Canada and Mexico are both Parties to the Kyoto Protocol, although only Canada has a binding commitment to reduce its GHG emissions. The Bush Administration rejected the Kyoto Protocol in March 2001.

However, NAFTA Member States do have common interests related to air quality and energy issues that could serve as a basis for a regional climate governance system. Indeed, much of the CEC discussion on GHG mitigation has occurred in the broader context of air quality issues. For example, in the recent report on power plant emissions in North America, CO_2 is identified as a "key pollutant from individual power plants" (Miller and Van Atten 2004). Addressing climate change through the electricity sector provides greater opportunities for regional cooperation than a more direct approach to mitigating GHG emissions.

Moreover, it is not surprising that emissions trading has emerged as a preferred policy option in the CEC discussions. Within the NAFTA regime, environmental policies are nested within the broader goal of trade liberalization, and in this context, the environment often plays a secondary role (Stevis and Mumme 2000, 23). The need to support NAFTA's trade liberalization goal shapes the types of environmental policies and standards considered within the CEC, with preference for technological

[4] During the UNFCCC negotiation, this coalition included Japan, US, Canada, Australia, and New Zealand; Switzerland and Norway joined during the Kyoto Protocol negotiations.

management of emissions rather than policies to change the underlying processes that give rise to GHG emissions (e.g. reliance on fossil fuels).

Designing a North American emissions trading system

Given the centrality of emissions trading in CEC discussions about climate change, this section identifies a number of design issues that will need to be addressed, drawing on the model of the European Emissions Trading Scheme (ETS). The ETS became operational in January 2005 as a component of Europe's strategy to meet its Kyoto Protocol target. The Directive on emissions trading represented an interesting turnaround in the European approach to climate governance. In the negotiations of the Kyoto Protocol, the Europeans had been skeptical of American proposals to allow emissions trading to achieve GHG reduction commitments. However, as they began reviewing options for achieving their own Kyoto commitment, trading became a much more attractive option, particularly once the proposed carbon tax was defeated. Trading was seen as an economically efficient way to achieve the Kyoto target. Moreover, once individual Member States began developing national and/or bilateral trading systems, EU policymakers had an interest in ensuring such schemes were compatible (Christiansen and Wettestad 2003). Although the ETS is one of more than 45 GHG trading and transfer systems that have been proposed and/or are in operation worldwide, the ETS functions as a blueprint for many other trading systems (Hasselknippe 2003). In the present analysis, the ETS provides a guide for understanding how emissions trading might evolve in the North American context under the CEC.

Coverage and participation. Any trading system must establish which sectors are to be included, which gases are to be covered and whether participation will be mandatory or voluntary. During the initial phase (2005-2007), the scope of the ETS is limited to CO_2 emissions from more than 12,000 installations in the energy and industrial sectors. Facilities include combustion plants; oil refineries; coke ovens; iron and steel plants; cement, glass, lime, brick and ceramics factories; and pulp and paper. Together, these installations account for nearly half of Europe's CO_2 emissions (European Commission 2004b). Participation in the ETS is mandatory, although the Directive does allow for temporary exclusion of some installations, subject to Commission approval (European Commission 2003).

The European Commission made the choice to limit the scope of the ETS in its initial phase for practical reasons and in order to gain support from industry and Member States (Christiansen and Wettestad 2003; European Commission 2004b). The focus on CO_2 is reportedly because of difficulties in monitoring, reporting and verifying emissions of the other GHGs. The choice of sectors reflects a balance between keeping the number of facilities at a manageable level while also covering a relatively high percentage of emissions. For example, the chemical sector was excluded in the first phase because the high number of installations and its small share of Europe's 1990 CO_2 emissions (Christiansen and Wettestad 2003).

Current discussions in the CEC suggest that a North American trading system would most likely cover CO_2 emissions in the electricity sector at the outset. Although the advisory board for the special report on the electricity sector and the environment allowed for the development of a trading system involving all GHGs, only CO_2 has been monitored to date on a cross-national basis (Miller and Van Atten 2004). Thus, starting with CO_2 would make it easier to get a system up and running. Moreover, focusing on the electricity sector would also seem to be politically efficient since the electricity sector accounts for a significant share of GHG emissions in each country (22% in Canada, 29% in the US, and 30% in Mexico) and there appears to agreement between the three countries about the need to mitigate emissions (Miller and Van Atten 2004).

Of course, proposals for emissions trading in the North American context are rationalized in terms of general air quality concerns rather than climate change. Thus, it seems likely that a North American system would also include other air pollutants which are monitored cross-nationally: SO2, NOx and mercury. In linking greenhouse gas mitigation to air quality, the CEC runs the risk of diluting its actual impact on the problem of climate change. An emissions trading system in the electricity sector aimed at enhancing air quality would likely give facilities the option of reducing emissions of one of several pollutants—SO_2 rather than CO_2 for example. Thus, climate governance linked to air quality does

not guarantee a reduction in GHG emissions. At the same time, since many activities that produce GHG emissions also produce other pollutants that more directly affect air quality, controlling emissions of those pollutants may have indirect effects on GHG emissions (STAAPA-ALAAPCO 1999). In other words, synergies between air quality policies and climate mitigation policies are possible but not assured.

Finally, participation in a North American emissions trading system would likely be voluntary given the Bush Administration's opposition regulating CO_2 at US facilities.

Targets. A second design issue relates to setting reduction targets. Targets can be expressed in three ways: absolute tons of CO_2 equivalent (e.g. a total amount of emissions allowed); percentage of emissions in a base year; or intensity-based emissions standards (Hassilknippe 2003). Under the ETS, Member States set a level of emissions allowances in terms of absolute tons of CO_2 equivalent, guided by the EU's Kyoto target and each Member States' responsibility under the burden-sharing arrangement. These targets are proposed in National Allocation Plans (NAPs) that must be approved by the European Commission (European Commission 2004b). Annex III of the ETS Directive sets out a number of criteria by which NAPs are evaluated, including technological feasibility, avoidance of excess allowances, and clarification about how emissions trading relates to other policy instruments being used to achieve a Member States' Kyoto target (Christiansen and Wettestad 2003; European Commission 2003; European Commission 2004b).

Target setting in the EU context was simplified by the fact that all Member States have a common commitment to reduce GHG emissions under both the Kyoto Protocol and previous EU policy. In contrast, there is no common climate policy in North America. As noted above, the three Member States have very different domestic approaches to climate change and only Canada has a binding target under the Kyoto Protocol. Moreover, while the ETS is rationalized in terms of climate governance, the CEC discussions situate GHG emissions in the broader context of general air quality issues. It is thus unclear what criteria might be used to set a cap on CO_2 emissions under a North American system.

Allocation. Once a target is set, another design issue concerns the allocation of emissions allowances. Christiansen and Wettestad (2003) identify two strategies for the initial allocation of allowances. Under "grandfathering" allowances are distributed to companies based on their historical emissions. Alternatively, governments require facilities to purchase allowances. In carbon trading systems linking several national trading scheme, Hasselknippe (2003, 55) argues, "it is important that there are at least some guidelines for allocation in place."

Allowances in the ETS are allocated using the grandfathering approach; 95% of each Member States' allowances are to be distributed at no charge to companies based on their historical emissions (Christiansen and Wettestad 2003; European Commission 2004b). The European Commission reportedly chose this approach in order to avoid mobilizing opposition from industry and to enhance chances of getting the system up and running by 2005 (Christiansen and Wettestad 2003). Such an approach would also seem to make sense in the North American context. The ETS Directive also requires that emissions allowances be allocated in a manner consistent with EU rules regarding non-discrimination between firms or sectors (European Commission 2004b). Any allocation system promoted by the CEC would also have to comply with NAFTA regulations.

Sanctions. A range of design options are available to address issues of non-compliance with emissions targets, ranging from shaming to trade sanctions The ETS employs a mix of strategies, including financial penalties, suspension of trading privileges, naming and shaming, and requirement to purchase additional allowances to make up shortfalls (European Commission 2004b; Hasselknippe 2003). During the first phase of the ETS, facilities that are in non-compliance must pay a fine of €40 per ton of shortfall (to be increased to €100 in 2008). Operators that fail to meet emissions targets will have their names published the following year (shaming) and will be required to purchase allowance to cover the shortfall. Member States may impose additional penalties at the national level. The EU system does not employ trade sanctions to enforce emissions targets. There is some debate about whether sanctions would be consistent with WTO rules and whether they are even an effective enforcement strategy (Charnovitz 2003). In addition, sanctions may be inconsistent with the EU's overall objective of economic integration. Likewise, sanctions as a response to non-compliance with targets in North America could jeopardize

NAFTA's trade liberalization goal. Thus, the mix currently employed by the ETS seems to be a good model for a North American system.

Linkage to other trading systems. The ETS has been developed with an eye towards serving as a model for an international emissions trading system under the Kyoto Protocol. To that end, the Directive allows for the ETS to be linked to other trading systems in countries that have ratified the Kyoto Protocol through mutual recognition of allowances (Christiansen and Wettestad 2003; European Commission 2003; European Commission 2004b). This presents particular difficulties in the North American context. Canada, as an industrialized party to the Protocol, is obligated to reduce its GHG emissions six percent below 1990 levels in the period 2008-2012. At the same time, market forces in North America have created a situation in which Canadian firms are major suppliers of oil and natural gas to the US. If this trend continues, Canada will be penalized under the global system for increased emissions, which will also raise Canada's compliance costs and potentially make Canadian firms less competitive (Page 2002; Zhang 2003). Moreover, credits obtained from US firms will not be recognized internationally (although Charnovitz (2003) argues that such a provision could be problematic under the WTO). Only Parties to the Kyoto Protocol are eligible to participate in the global trading regime. In other words, any *regional* trading system would have to also allow Canada to participate in the *global* trading regime so that it can comply with its Kyoto target (Page 2002; Zhang 2003). Zhang (2003) identifies several other potential difficulties in developing a North American trading system, including questions about how to handle permits for Canadian subsidiaries of US companies and whether Canada should be allowed to give preferential treatment to domestic companies and companies of other Kyoto Parties.

NAFTA rules. An emissions trading system administered by the CEC would have to be consistent with NAFTA's trading rules, raising additional design issues (Russell 2002). Would tradable emissions units (TEUs) be treated as "goods" or "services"? Would purchasing TEU's from entities in other countries fall under Chapter 11 rules regarding investment? Emissions allowances, which would be allocated under a "cap and trade" system, could be considered as subsidies subject to extra duty when transferred between countries. Is trade in TEUs an activity linked to the procurement of energy goods and services? Finally, could activities involved in the trading system be viewed as trade restrictions?

Conclusion: Institutional Interplay and Policy Development

In the above discussion, it becomes clear that the development of a policy option for governing GHG emissions at the North American level will not occur in isolation. Rather, CEC choices about how to design an emissions trading system will be constrained by interplay, both horizontal and vertical, with related governance institutions. As Bressers and Rosenbaum (2003) noted, multilevel governance creates multiple games to which decision makers must attend in developing a North American climate governance system.

First, we see the influence of the fact that the CEC is part of the broader NAFTA regime and thus must serve its primary objective of trade liberalization. This linkage explains the CEC's preference for emissions trading as a way to mitigate the environmental impact of electricity generation. Such market-based instruments are seen to offer a win-win solution to environmental protection by providing companies with economic incentives and flexibility in way that a more top-down regulatory system would not. We also see that the NAFTA regime will place constraints on the design of an emissions trading system by requiring that such a system be consistent with NAFTA regulations. For example, the allocation and treatment of tradable emissions units must not violate NAFTA limits on subsidies, and sanctions as a response to non-compliance with targets could jeopardize NAFTA's trade liberalization goal.

The design of a North American emissions trading system will also be shaped by interplay with global level institutions, both the Kyoto Protocol on climate change and the WTO. Unlike the ETS, a North American system would not be directly focused on meeting Kyoto targets, both because not all of its Member States have reduction targets under Kyoto and because the North American system would be rationalized more broadly in terms of air quality issues. At the same time, Canada does have an obligation to reduce its GHG emissions 6% below 1990 levels under the Kyoto Protocol and any North American

trading system must facilitate Canada's ability to meet that objective. The WTO raises doubts that regional bodies such as the CEC and the EU could use sanctions against countries and/or firms that fail to comply with their emissions reductions targets. The WTO tends to limit the ability of Member States to use sanctions for environmental protection, interpreting such actions as a form of protectionism.

Another important game to consider is the relationship between a North American trading system and the ETS. While the ETS is designed to be linked to other trading systems, the fact that one of the CEC's Member States (the US) is not a party to the Kyoto Protocol may create difficulties on this issue. At the same time, it is doubtful that Canada would support any system that cannot be linked to the ETS, given its need to meet its Kyoto target. In designing a North American emissions trading system, CEC decision makers would need to develop a mechanism for linking these systems, which is likely to require close consultation with the EU.

CEC decision makers will also be constrained by national policies in Member States. For example, participation in a North American emissions trading system would likely be voluntary given the Bush Administration's opposition regulating CO_2 at US facilities. In addition, Canada has designed a national climate policy to achieve its Kyoto target and is not likely to want to participate in any trading system which might jeopardize that goal. As an intergovernmental body, the CEC does not have the authority to force Member States to adopt policies that conflict with national priorities.

The case of the CEC and the design of a North American emissions trading system to mitigate GHG emissions demonstrates the complexity of environmental protection in a system of multilevel governance. That CEC decision makers will be constrained by interaction with governance arrangements in other spheres and tiers raises further questions about the appropriateness of governing climate change in this particular arena. Future research should consider whether such constraints compromise the ability of the CEC to design and emissions trading system that can actually reduce GHG emissions.

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