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# Canadian energy and climate policies: A SWOT analysis in search of federal/provincial coherence



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## HIGHLIGHTS

- We perform a SWOT analysis of the Canadian energy and climate policies.
- We analyse policy coherence between federal and provincial/territorial strategies.
- We show that a lack of coordination leads to a weak coherence among policies.
- The absence of cooperation results in additional costs for Canada.

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## ABSTRACT

This paper presents an analysis of Canadian energy and climate policies in terms of the coherence between federal and provincial/territorial strategies. After briefly describing the institutional, energy, and climate contexts, we perform a SWOT analysis on the themes of energy security, energy efficiency, and technology and innovation. Within this analytical framework, we discuss the coherence of federal and provincial policies and of energy and climate policies. Our analysis shows that there is a lack of consistency in the Canadian energy and climate strategies beyond the application of market principles. Furthermore, in certain sectors, the Canadian approach amounts to an amalgam of decisions made at a provincial level without cooperation with other provinces or with the federal government. One way to improve policy coherence would be to increase the cooperation between the different jurisdictions by using a combination of policy tools and by relying on existing intergovernmental agencies.

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## 1. Introduction

Canada has a remarkable energy profile with abundant and diverse resources. It is also characterized by large inequalities in the distribution of its resources and a federal structure that imposes several levels of governance and jurisdiction. Energy and climate policies are often interrelated; for instance, energy policies encouraging fossil fuel production conflict with climate policies aimed at reducing greenhouse gases. These policies are implemented by both the federal and provincial governments according to a sometimes ambiguous distribution of jurisdictions. Moreover, economic and environmental realities, the diversity of energy sources, and energy demands vary greatly among Canadian provinces. As a result, energy and climate policy objectives and the means to reach them also differ. There is therefore a multiplication of federal and provincial strategies, sometimes complementary, but often

contradictory. Indeed, the dual levels of governance lead to specific issues for the different decision-making entities (Thorlakson, 2003) and in particular make it difficult to achieve overall coherence in the various policies. Specifically, Canadian provinces are responsible for the regulation, production, distribution, and planning of their own energy resources. However, the federal government is co-responsible for the industrial development of the energy sector and can support and finance specific activities in the national interest (Duquette, 1992). It can thus intervene in the areas of shared authority. This situation may generate political, legal, or operational resistance from the provincial authorities to the detriment of overall coherence in energy and climate policies.

Several definitions of coherence have been proposed. For instance, policy coherence is defined by the OECD as the “systematic promotion of mutually reinforcing policy actions across government departments and agencies creating synergies towards achieving the agreed objectives” (OECD, 2001). Similarly, Gauttier (2004) presents policy coherence as the “achievement of a synergy between (...) policies” and Missiroli (2001) as a “desirable plus” that “implies positive connections [and is] more about

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synergy and adding value.” In Canada, the [North–South Institute \(NSI\) \(2003\)](#) defines policy coherence as policies that are coordinated and complementary or at least not contradictory. The common elements of these definitions are thus synergies between policies and implicitly the use of adequate policy instruments to reach the desired objectives. This could also lead to the more efficient achievement of the objectives.

The question of policy coherence has been widely discussed, in particular in the case of the European Union (EU). Indeed, the distribution of competences between the EU and its state members is characterized by both exclusive jurisdictions (EU or state members) and shared competences (EU and state members). Such overlapping of responsibilities may cause coherence problems (see for instance [Missiroli, 2001](#); [Carbone, 2008](#); [Den Hertog and Stropf, 2011](#)). Coherence analyses have also been performed on Canadian development and cooperation policies ([North–South Institute \(NSI\), 2003](#)) and Canadian energy policies ([Conference Board of Canada, 2004](#); [Valentine, 2010](#)). In the latter case, the analyses have focused on a specific energy sector. By contrast, the aim of this article is to evaluate Canadian energy and climate strategies globally, especially their ability to address the problems that Canada faces. We will in particular evaluate whether the decision-making processes used, which involve both provincial and federal jurisdictions, ensure the coordination and overall coherence of the policies.

Policy coherence analyses are mainly performed through the content analysis of laws, jurisdictions, or organizational relationships; see [Missiroli \(2001\)](#), [Gauttier \(2004\)](#), and [Smith \(2004\)](#). Examples include cost–benefit analysis, multi-criteria analysis ([Commission Européenne \(CE\), 2006](#)), PESTEL (Political, Economic, Social, Technological, Environmental, and Legal) analysis ([Henry, 2011](#)), and SWOT analysis.

We will perform a SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats)<sup>1</sup> of Canadian energy and climate policies. The SWOT methodology is a strategic analysis tool that combines the study of the strengths and weaknesses of an organization, territory, or sector with the study of opportunities and threats in its environment. The goal is to help define a development strategy ([Jackson and Dutton, 1988](#)). Whereas the PESTEL approach, for example, focuses only on external factors, a SWOT analysis takes into account both internal and external factors. It aims to maximize the potential of strengths and opportunities while minimizing the effects of weaknesses and threats ([Schmoldt and Peterson, 2000](#)). It may also incorporate (as the PESTEL approach does) economic, institutional, organizational, and legal elements. It is commonly used in the business sector for the analysis of management strategies, and it has also been used for policy coherence analysis by the European Union (EU) or European Commission ([Rantil et al., 2003](#); [European Commission \(EC\), 2005](#)). It has recently been used for the analysis of energy strategies (alone or in combination with other approaches<sup>2</sup>).

The use of a SWOT approach to analyze policy coherence has several advantages. First, compared to a simple content (or discourse) analysis, it allows better-structured qualitative analyses of predefined issues. Second, as already mentioned, SWOT is a strategic analysis tool focused on change. It is therefore more dynamic and thus better able to identify changes that improve policy coherence. Furthermore, compared to a cost–benefit analysis that assesses a policy mainly from the economic-rationality point of view in an ex-ante context, SWOT can be used to study the relevance and coherence of a policy or strategy in an intermediate

or ex-post assessment context. Whereas a cost–benefit analysis compares different measures or programs with a common objective, SWOT can verify the coherence of a strategy or policy that encompasses several parallel objectives. Likewise, multi-criteria analysis is mainly used to compare different projects with heterogeneous measures or impacts and can reveal synergies between these measures ([Vaillancourt and Waaub, 2006](#); [Vazquez et al., 2012](#)). It is not generally used to assess the overall coherence of a strategy but rather to evaluate its effects according to several criteria.

SWOT analyses have several limitations. In particular, even if the analysis is well structured, it is often subjective and a consensus about its results may be difficult to reach. Moreover, even if it allows us to identify the strategic axis of a policy with multiple objectives and complex expected impacts, it simplifies the real problem ([Commission Européenne \(CE\), 2006](#)). Finally, it can be difficult to distinguish between internal and external factors, leading to confusion between strengths and opportunities or between weaknesses and threats.

The internal and external factors should be well defined prior to the SWOT analysis. Strengths are positive internal aspects controlled by the organization or country, whereas opportunities are possibilities offered by the external environment that can be used to improve the strengths (and reduce the weaknesses). Similarly, weaknesses are negative internal aspects, whereas threats are external problems or limitations that can prevent the success of the implemented policy.

Our SWOT analysis is structured in terms of three themes: energy security, energy efficiency, and technology and innovation. For energy security, we use the definition of the International Energy Agency (IEA) that refers to “the uninterrupted availability of energy sources at an affordable price”.<sup>3</sup> For energy efficiency, we use the IEA definition that refers to “the way of managing and restraining the growth in energy consumption”.<sup>4</sup> The theme ‘technology and innovation’ focuses on R&D policies that improve the sustainability of energy production and consumption. In this context, the strengths (resp. weaknesses) are economic or political domestic elements that positively (resp. negatively) impact a specific theme. Likewise, the opportunities (resp. threats) are external factors that similarly impact a given theme. We use this taxonomy to discuss the coherence of federal and provincial policies and of energy and climate policies.

The choice of themes is motivated by two main considerations. On the one hand, these themes are prominent in the literature on energy and climate policies at both federal and provincial levels and in country reports from international bodies such as the IEA. On the other hand, these themes are common to the intervention domains of federal and provincial governments, and are at the interface of energy and climate policies. It is also important to analyze how energy and climate policies interact. Indeed, in Canada as in other countries, a commitment to reducing greenhouse gas (GHG) emissions is shaping energy policies, for instance by mandating that by 2020 90% of all Canadian electricity generation must be free of GHG emissions ([International Energy Agency \(IEA\), 2010a](#)) or by mandating the phasing out of coal-fired electricity generation in Ontario by 2014 ([Government of Ontario, 2007](#)). Similarly, energy policies such as fossil fuel subsidies or the extension of the life of coal-fired thermal plants ([International Institute of Sustainable Development \(IISD\), 2010](#); [Canada Gazette, 2012](#)) influence GHG emission levels.

The remainder of this paper is organized as follows. In [Section 2](#), we analyze the context of Canadian energy and climate policies,

<sup>1</sup> See for instance [Wehrich \(1982\)](#), [Hill and Westbrook \(1997\)](#), and [Valentin \(2001\)](#).

<sup>2</sup> See for instance [Celiktas and Kocar \(2009\)](#) and [Tavana et al. \(2012\)](#).

<sup>3</sup> See <http://www.iea.org/topics/energysecurity>. Accessed on November 2012.

<sup>4</sup> See <http://www.iea.org/topics/energyefficiency>. Accessed on November 2012.

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