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LEGAL ASPECTS OF
CLIMATE CHANGE POLICY**

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DEVELOPING SUSTAINABLE & EQUITABLE LEGAL FRAMEWORKS FOR
THE GLOBAL LOW-CARBON ECONOMY
LEGAL EXPERTS REPORT SERIES¹

LEGAL ASPECTS OF CLIMATE CHANGE POLICY

Verki Michael Tunteng²

1. Introduction

This report addresses recent legal developments involving Canada that may have implications for the development of climate law, its interaction with the international trade regime and the approval of renewable energy projects. It begins with a discussion of the role of domestic policy in creating the certainty needed to stimulate private sector investment, and then addresses international trade law and the promotion of low-carbon technologies. Ontario, Canada's most populous province and one of North America's most dynamic markets for low-carbon technologies, provides useful recent case studies for legal issues cutting across both domestic policy and international trade. This report concludes with a discussion of consultations between Canada and Japan before the World Trade Organisation in respect of Ontario's Feed-in Tariff Program.

2. Domestic Policy and the Low-Carbon Innovation Chain

Domestic policies in various jurisdictions have been credited not only with stimulating demand in many of the world's leading clean technology markets, but also with creating highly-skilled and well-paid employment and local expertise. In order to be effective, domestic policy must provide support to low-carbon technologies throughout the innovation chain. At the research and development stage, support may include grants and policies to encourage private-sector investment in basic research, in practice often accomplished through favourable tax treatment.

The pre-market deployment phase of low-carbon technologies is characterised by low or negative cash flow for project proponents. To the

¹ This Legal Experts Report was produced following consultation with key experts participating in the programme of activities hosted by the Centre for International Sustainable Development Law (CISDL) and the International Development Law Organisation (IDLO) during U.N. climate change negotiations in Copenhagen, December 2009. The symposium engaged leading academic partners from the University of Cambridge, the University of Chile, the University of Copenhagen, Hong Kong University, Ibadan University of Nigeria, University of Atma Jaya of Indonesia, Jawaharlal Nehru University of India, McGill University, the National Litoral University of Argentina, New York University, the University of Oslo, the University of Sydney, the University of Toronto, Tsinghua University of China, the Arabian Gulf University, and Yale University. Key collaborators included the International Law Association, UNEP, UNDP, OHCHR, IUCN, ClimateFocus, the Clinton Climate Initiative and the Assembly of First Nations (AFN).

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extent domestic measures can contribute to shortening the duration of this phase, this enhances the long-term commercial viability of projects in the clean technology sector, renders them more attractive to potential lenders and increases the likelihood that these technologies will over time become operational, widely accepted and competitive with conventional energy resources.

The development phase of projects in the wind energy industry, among the most well-established low-carbon sectors, is characterised by tools aimed at enabling project proponents to conduct detailed analyses of the wind resource in areas where an electricity generating facility might be constructed. Government agencies in various jurisdictions publish wind atlases or maps of their territory in which geographical areas are identified by their average wind speed³. Wind speed is the most significant variable affecting the profitability of a wind energy facility, and proper assessment of the wind resource is critical to the success of a project. Wind atlases allow project proponents to identify areas with promising wind speeds, thereby reducing the time required for detailed wind resource assessments and allowing projects to begin generating electricity in less time than would otherwise be possible.

Renewable Portfolio Standards (RPS), Feed-in Tariffs and Power Purchase Agreements are examples of domestic measures aimed at creating markets for electricity derived from renewable energy resources. In the case of RPS, the government mandates that utilities must purchase a certain proportion of electricity from renewable resources. Feed-in tariffs establish prices to be paid to power producers generating electricity from renewable resources. The prices are often differentiated for individual low-carbon technologies, reflecting either the maturity of the technology or the added costs of generation. For example, the price for electricity generated using onshore wind is typically lower than that of offshore wind, reflecting the maturity in onshore wind technology and the added complexities involved in offshore wind projects. Solar energy, which often involves smaller electricity generation centres that are distributed throughout the energy infrastructure, as opposed to the conventional model, in developed countries, of fewer large electricity generation facilities, will tend to require higher prices than wind energy projects.

Domestic policies currently in place in certain jurisdictions also include comprehensive changes to the decision-making process with respect to the addition of electricity generating capacity. Many developed countries have specialised regulatory bodies charged with selecting options for generating electricity in order to meet additional demand. Typically, these bodies have made decisions based on the cost per unit of energy, selecting the energy resource with the lowest unit cost. Under this approach, newer low-carbon technologies would consistently be at a cost disadvantage.

³ Jurisdictions with wind atlases include Brazil, Canada, the European Union, Turkey and the United States.

Public policy can influence the growth of low-carbon technologies by restructuring the decision-making phase in sourcing electricity-generation capacity. Traditionally, these regulatory bodies have made decisions based on narrowly-defined criteria. However, those jurisdictions that have become market-leaders in the promotion of low-carbon technologies have adopted policies mandating that decisions on electricity supply must be made with a view to promoting the use of renewable energy and associated technologies such as smart grids. Under this approach, energy regulators will be required to consider a broader range of factors in the decision-making process. This approach poses institutional challenges, as it involves specialised regulatory bodies making decisions based on factors that may not be within their areas of expertise.⁴

A comprehensive domestic policy approach has the effect of reducing the perceived risk of low-carbon technologies and enhancing the prospects for proponents in this sector to obtain financing for their projects on reasonable terms.

Ontario: Wind Energy and the Precautionary Principle

Recent legal developments in Ontario have raised questions concerning the role of the precautionary principle in Canadian environmental law and, more specifically, its possible implications for wind energy projects. Ian Hanna, a farmer, has made an application for judicial review of regulations dealing with the approval of renewable energy projects in Ontario.

Under Section 176(4.1) of the *Environmental Protection Act*,⁵ the Government of Ontario may adopt regulations relating to the approval of renewable energy projects. Regulation 359/09 ("the Regulation") to the EPA establishes requirements with respect to the approval and construction of electricity-generating facilities using renewable resources. Section 35 of the Regulation specifies that transformer stations associated with renewable energy projects must be located at least 500 metres from the nearest residential building. Under Section 54 of the Regulation, a wind turbine with a nameplate capacity equal to or greater than 50 kW and a sound power level equal to or greater than 102 decibels must be located at least 550 metres from the nearest residential building.

The provisions of the EPA and Regulation must be understood in the context of the *Environmental Bill of Rights*,⁶ section 7 of which requires certain ministries, including the Ministry of the Environment, to adopt a Statement of Environmental Values (SEV) that "explains how consideration of the purposes of [the *Environmental Bill of Rights*] should be integrated with other considerations, including social, economic and scientific considerations, that are part of decision-making in the ministry."⁷ Under its SEV, the Ministry of the Environment states that the

⁴ For a discussion of the regulatory changes introduced in the Canadian province of Ontario by the *Green Energy and Green Economy Act*, please see the following article: George Vegh, "The *Green Energy and Green Economy Act*: Green Energy Unbounded," 25 February 2009, online: < http://www.mccarthy.ca/article_detail.aspx?id=4389 >.

⁵ *Environmental Protection Act*, R.S.O. 1990, c. E.19 ("EPA").

⁶ *Environmental Bill of Rights, 1993*, R.S.O. 1993, c. 28 ("EBR").

⁷ *Ibid.* section 7.

decision-making process with respect to projects that may have significant effects on the environment will involve “a precautionary, science-based approach ... to protect human health and the environment.”⁸

Reading the Regulation together with the EBR and the SEV, the Government of Ontario, when deciding on the approval of a proposed renewable energy project, must use a precautionary and science-based approach in determining whether the project may have negative effects on the environment and/or human health. The basis of Mr. Hanna’s application for judicial review is that the current requirements in respect of the siting of wind turbines give insufficient consideration to the potential negative effects on human health. Mr. Hanna submits that “[t]here is great scientific uncertainty around the health effects of industrial wind turbines, which is not taken into account in the application and approval procedures for wind facilities established by the Regulation.”⁹ This application for judicial review is currently scheduled to be heard in January 2011 and could have significant consequences for the future development of low-carbon technology projects in Ontario.

3. International Trade Law: Complementary Roles and Tensions

In order for low-carbon technologies to contribute in a significant way to a reduction in global greenhouse gas (GHG) emissions, they must gain large-scale acceptance on a global scale. This is an objective that domestic policies, by themselves, are unlikely to achieve. In addition to a sound international climate law framework, the liberalisation of international trade in goods related to the clean technology sector can contribute to their adoption by a broad range of countries.

Large-scale acceptance of low carbon technologies requires liberalised international trade in related goods, complemented by sound domestic policies to promote their deployment internally. Under this model, those countries that are global leaders in specific low-carbon technologies would become leading exporters of technological expertise, and leading importers of goods related to those technologies. However, research has demonstrated that the role of barriers to international trade varies with specific low-carbon technologies.¹⁰

Trade and Investment Implications of the Low-Carbon Economy

Liberalisation of international trade in goods related to low-carbon technologies, while viewed as essential to ensuring their large-scale acceptance, raises questions with respect to the manner in which these

⁸ Environmental Registry, online: < <http://www.ebr.gov.on.ca/ERS-WEB-External/content/sev.jsp?pageName=sevList&subPageName=10001> >.

⁹ *Ian Hanna and Attorney General for Ontario*, Ontario Superior Court of Justice (Divisional Court), File 491/09, Amended Notice of Application to Divisional Court for Judicial Review, at para. 2(g).

¹⁰ V. Jha, “Trade Flows, Barriers and Market Drivers in Renewable Energy Supply Goods: The Need to Level the Playing Field,” ICTSD Trade and Environment Issue Paper 10 (Geneva: International Center for Trade and Sustainable Development, 2009).

goods are defined. Paragraph 31(iii) of the Doha Declaration establishes the objective of negotiations towards “the reduction [...] or elimination of tariff and non-tariff barriers to environmental goods and services.” Yet the definition of environmental goods and services remains unclear, in particular the required nexus between the goods and their environmental application. The question remains whether trade liberalisation should focus on those goods that have an exclusively environmental application, or whether goods serving both environmental and non-environmental purposes should be included.

Liberalisation of trade in components related to the renewable energy sector may only provide a partial solution. Trade in renewable energy technologies takes place largely between developed countries, with developing countries accounting for between 30 and 40 percent of the total.¹¹ Critically, developed countries account for the majority of trade in both assembled products and components in the renewable energy sector. Jha suggests that this is due to the “knowledge component”¹² associated with these products, which involves developing expertise related to the manufacture and assembly of products.

Further tensions with respect to trade liberalisation include divergences between domestic policies designed to promote low-carbon technologies. Recent research has examined specific low-carbon technologies and the role of non-tariff barriers to trade, in particular domestic licensing requirements and local content requirements. Additionally, border measures on the importation of carbon-intensive goods may complement domestic measures to promote low-carbon technologies.

Ontario’s Feed-in Tariff Program: WTO Consultations between Canada and Japan

Recent developments involving Ontario’s Feed-in Tariff Program highlight the potential for tension between international trade and climate law. As previously mentioned, low-carbon technologies offer the promise of generating highly-skilled workforces and developing local centres of excellence that are ultimately favourable to overall economic growth. Yet these realities are open to challenges under international trade law, as evidenced the Government of Japan’s recent request for consultations with Canada in respect of Ontario’s Feed-in-Tariff Program.¹³

The legal basis for Ontario’s Feed-in Tariff Program (the “Program”) is Section 25.35 of the *Electricity Act*, 1998.¹⁴ The Program involves the purchase by the Ontario Power Authority¹⁵ of electricity generated from renewable resources, at rates established by contracts having a term of 20 years. The Program may be analysed from various perspectives: in the context of climate law, as domestic policy intended to give effect to

¹¹ *Ibid.* at 8.

¹² *Ibid.* at 6.

¹³ *Canada – Certain Measures Affecting the Renewable Energy Generation Sector* (2010), WTO Doc. WT/DS412/1, Request for consultations of 16 September 2010.

¹⁴ *Electricity Act* 1998, S.O. 1998 (“*Electricity Act*”).

¹⁵ A not-for-profit corporation established under Section 25.1 of the *Electricity Act*.

international commitments; as part of Ontario's long-term energy strategy, seeking reliable and low-carbon sources of energy to replace coal-fired power plants, scheduled to be phased out in the province by 2014; and as part of a vision that not only seeks to promote renewable energy, but which views renewable energy as a tool of socio-economic development that can lead to the creation of a highly-skilled Ontario-based workforce and specialised industry that could ultimately export its products and expertise elsewhere. This latter point has taken on particular importance following the restructuring of North America's automotive industry, a major employer in Ontario. Many of the manufacturing jobs in the clean technology sector involve skills similar to those required in the automotive sector, representing an opportunity to retrain and re-deploy employees affected by the contracting of employment in the automotive sector.

In furtherance of the objective of creating a local market, the Program establishes minimum domestic content levels governing the eligibility of renewable energy projects. Wind energy projects having a capacity greater than 10 kW must have at least 25 percent domestic content; this minimum requirement is scheduled to increase to 50 percent in 2012. For solar projects of 10 kW and greater, the minimum required domestic content level is currently 50 percent, and is scheduled to increase to 60 percent in 2012.¹⁶ Minimum domestic content levels refer to the components used in the manufacture and assembly of goods used in electricity-generating facilities, as well as to "consulting services," a category which includes legal and consulting services.¹⁷

The basis of Japan's request for consultations under the Dispute Settlement Body of the World Trade Organisation¹⁸ is that the domestic content requirements set out under the Program are inconsistent with Article III:4 of the *General Agreement on Tariffs and Trade* 1994 (the "GATT") because they "appear to be laws, regulations or requirements affecting the internal sale, offering for sale, purchase, transportation, distribution, or use of equipment for renewable energy generation facilities that accord less favourable treatment to imported equipment than that accorded to like products originating in Ontario."¹⁹ To the extent that the minimum domestic content requirements establish restrictions on components used in the manufacture and assembly of renewable energy installations, they could constitute, in the view of Japan, "internal quantitative regulation relating to the mixture, processing or use of products in specified amounts or proportions which requires, directly or indirectly, that any specified amount or proportion of any product which is the subject of the regulation must be supplied from domestic sources" within the meaning of GATT Article III:5.

¹⁶ Feed-in Tariff Rules, Version 1.3.1, Section 6.4.

¹⁷ Feed-in Tariff Contract, Version 1.3.1, Exhibit D.

¹⁸ Article 4, *Understanding on Rules and Procedures Governing the Settlement of Disputes*; Article XXII:1, *General Agreement on Tariffs and Trade*; Article 8, *Agreement on Trade-Related Investment Measures*; and Articles 4.1 and 30, *Agreement on Subsidies and Countervailing Measures*.

¹⁹ *Supra* note 13.

Japan's request for consultation also engages the *Agreement on Subsidies and Countervailing Measures* (the "SCM Agreement"). The Government of Japan views the rates paid by the Ontario Power Authority under the Program as a subsidy within the meaning of Article 1.1 of the SCM Agreement on the basis that they constitute a "financial contribution or a form of income or price support, and a benefit is thereby conferred."²⁰ Moreover, the granting of the "subsidy" is inconsistent with Article 3 of the SCM Agreement, in the view of Japan, on the basis that it is "contingent upon the use of equipment for renewable energy generation facilities produced in Ontario over such equipment imported from countries such as Japan."²¹

Both the European Union and the United States have requested, and been granted, permission to participate in these consultations, likely due to the prevalence of programs similar to Ontario's Feed-in Tariff Program and the potential implications of the consultations on the adoption of domestic policies aimed at promoting the use of renewable energy.

4. Conclusion

International climate law, coordinated with domestic policies aimed at ensuring investor certainty, has the potential to contribute significantly to global GHG emissions reductions. Low-carbon technologies can achieve desirable socio-economic goals, yet the construction of large-scale renewable energy projects continues to generate opposition. Current legal challenges to the regulatory process governing the approval of renewable energy projects may influence the deployment of wind energy in one of North America's most active markets. Moreover, domestic policies aimed at stimulating investment and local employment continue to create tensions with the objectives of international trade liberalisation, even as the latter has a demonstrated potential to promote the large-scale adoption of low-carbon technologies.

²⁰ *Ibid.*

²¹ *Ibid.*

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