

CAP-AND-TRADE SYSTEM FOR GREENHOUSE GAS EMISSION ALLOWANCES: THE QUEBEC EXPERIENCE

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CAP-AND-TRADE SYSTEM FOR GREENHOUSE GAS EMISSION ALLOWANCES: THE QUEBEC EXPERIENCE

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The possibility of “offshoring” greenhouse gas (GHG) emission reductions is central to the choice of using a carbon market to achieve a given GHG reduction target. Thus, the obligation imposed on reporting emitters located in a territory can be facilitated by allowing those emitters to obtain emission “quotas” or “reduction units” corresponding to reductions made in a territory under another jurisdiction. Carbon markets authorize the trading of reduction units between reporting emitters, within a single jurisdiction or even between jurisdictions, based on economists' belief that achieving an overall emission reduction objective can prove less costly this way rather than by imposing uniform emission standards on every emitter¹. As set out in the *United Nations Framework Convention on Climate Change*, the “policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost”². Carbon markets would therefore meet this objective of economic efficiency.

A carbon market can be established in various ways, but in general it requires that the nation choosing to resort to it set an overall cap for GHG emissions that will be authorized during a given period for its reporting emitters. That cap will be lowered over the years until eventually allowing only emissions that reflect compliance with the previously established reduction target. The Nation will have to create tradeable units, each one representing a fraction of the allocated emissions, within the initial overall cap set, and distribute them among the reporting emitters. Then the carbon market established by the Nation will be able to allow, in various ways, the purchasing and trading of emission units that will be needed for the continued operation of the emitters. They will have obligations to report their emissions and to “cover” their emissions through tradeable units, based on successive compliance periods provided for by the applicable legislation.

In its 2006-2012 climate change action plan entitled *Quebec and Climate Change. A Challenge for the Future*, the Quebec government was already announcing its intention to

¹ This idea had already been put forward in the context of the negotiations around the *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, December 11, 1997, 2302 U.N.T.S. 148, 37 I.L.M. 32, and in the subsequent implementation of instruments to combat global warming. See in general: Jacques PAPY, “Le rôle de la propriété et du marché dans le régime québécois de plafonnement et d'échange de droits d'émissions de carbone”, (2010) 89 Canadian Bar Review 315. ; Jacques PAPY, “L'échange de droits d'émission de gaz à effet de serre sous la loupe de l'analyse économique du droit” (2013) 54 Cahiers de droit 851; Jacques PAPY, “L'encadrement de l'échange de droits d'émission dans le marché réglementé du carbone au Québec sera-t-il efficace ? Enjeux, constats et prédictions”, (2014) 44 Revue générale du droit 7; Érick LACHAPELLE, Jacques PAPY, Pierre-Olivier PINEAU and Hélène TRUDEAU, “Enquête sur les entreprises touchées par le Système de plafonnement et d'échange de droits d'émission de gaz à effet de serre du Québec” (CATS), Rapport Bourgogne, CIRANO, 2017; AUDITOR GENERAL OF QUEBEC, “Marché du carbone : portrait et enjeux”, in Rapport du Vérificateur général du Québec à l'Assemblée nationale pour l'année 2016-2017. Rapport du commissaire au développement durable, Quebec, Spring 2016, chap. 4.

² *United Nations Framework Convention on Climate Change*, May 9, 1992, 1771 U.N.T.S. 107 s. 3 (3).

turn to a carbon emissions trading scheme³. The Quebec government then decided to give the province an ambitious GHG emissions reduction target by the year 2020⁴. The government has passed the necessary legislation and regulations needed for achieving that goal. The *Environment Quality Act*⁵ was amended in 2009 to add sections 46.1 to 46.18, empowering the government to implement via regulations a cap-and-trade system (CATS) to help meet the targets set by the government and mitigate the costs associated with GHG reduction and limitation efforts. The *Regulation respecting the mandatory reporting of certain emissions of contaminants into the atmosphere*⁶ stipulates the thresholds at which companies, facilities or institutions become subject to the obligation to report their greenhouse gas emissions and states the information they must provide⁷. On December 14, 2011, the Government of Quebec passed the *Regulation respecting a cap-and-trade system for greenhouse gas emission allowances*⁸ which sets out the rules for the operation of the CATS by determining which emitters are required to “cover” their emissions⁹, the terms and conditions for registering for the system in order to have the accounts needed for purchasing and trading emission allowances, and the terms and conditions for the issue, use and trading of GHG emission allowances.

³ QUEBEC, MINISTRY OF SUSTAINABLE DEVELOPMENT, ENVIRONMENT AND PARKS, *2006-2012 Action Plan – Quebec and Climate Change, A Challenge for the Future*, 2008, at pg. 26.

⁴ The commitment announced in 2009 by the Government of Quebec is, by 2020, to reduce GHG emissions in Quebec 20% below emissions in 1990: *Décret du 18 novembre 2009 concernant l'adoption de la cible de réduction des émissions de gaz à effet de serre du Québec à l'horizon 2020*, D1187-2009 (2009) GOQ II, 5871. A new target for 2030 was set in 2015: *Décret du 18 novembre 2015 concernant l'adoption de la cible de réduction des émissions de gaz à effet de serre du Québec pour 2030*, D1018-2015 (2015) GOQ II, 4687. Thus, [translation] “Quebec aims to reduce its GHG emissions 20% below the 1990 level by 2020 and to reduce them 37.5% by 2030, while committing, as part of the Under2 MOU, to an 80% to 95% reduction by 2050. This level of reduction is further to the recommendations of the Intergovernmental Panel on Climate Change for Industrialized Countries”, see GOVERNMENT OF QUEBEC, MINISTRY OF SUSTAINABLE DEVELOPMENT, ENVIRONMENT AND THE FIGHT AGAINST CLIMATE CHANGE, Quebec’s Commitments, Our GHG Emission Reduction Targets”, online: <<http://www.mddelcc.gouv.qc.ca/changementsclimatiques/engagement-quebec.asp>> (consulted September 15, 2018).

⁵CQLR, c. Q-2.

⁶CQLR, c. Q-2, r. 15.

⁷*Id.*, s. 2.

⁸CQLR, c. Q-2, r. 46.1.

⁹ The categories of reporting emitters are specified in section 2 of the Regulation, *ibid*, and the coverage obligations for each one are set out in section 19 of the Regulation. The original Regulation essentially created two categories of emitters. They were “industrial emitters” ([translation] “2013-2014 period: people or municipalities that operate an establishment whose annual GHG emissions, excluding CO2 emissions pertaining to biomass burning, are equal to or greater than 25,000 metric tonnes CO2 equivalent, and that distribute electricity produced outside Quebec and whose emissions associated with producing it are equal to or greater than 25,000 metric tonnes CO2 equivalent” (s. 2 of the Regulation, original version)) and “fuel distributors”. ([translation] “2015-2020 Period: In addition is the distribution of fuels and fossil fuels with emissions equal to or greater than 25 ktCO2eq.” (s. 19 of the Regulation, original version)).

Subsequent amendments to the Regulation have, among other things, broadened the definition of reporting emitters to include fuel distributors starting at 200 litres and to incorporate persons or municipalities [...] “reporting for an establishment, in keeping with subsection 1 of section 6.1 of the *Regulation respecting mandatory reporting of certain emissions of contaminants into the atmosphere* (chapter Q-2, r. 15), annual greenhouse gas emissions in a quantity equal to or greater than 10,000 metric tonnes CO2 equivalent and that registers for the system for one of its establishments covered by the reporting without being required to do so”: s. 2.1 *Regulation respecting a cap-and-trade system for greenhouse gas emission allowances*, *ibid*.

The Quebec system was created in the context of Quebec's participation in the Western Climate Initiative (WCI), an organization made up of U.S. states and Canadian provinces with the objective to provide a structure to enable partner entities to "expand" their own cap-and-trade system by also having access to that of other entities. The Government of Quebec linked the CATS with the system established by the Government of California, and the two sub-state entities have developed, through the WCI, a common carbon market. Such a market thus enables Quebec's reporting emitters to have access not only to the emission allowances representing the reductions achieved in Quebec, but also to those representing reductions achieved under the California cap-and-trade system, thereby potentially reducing those reporting emitters' overall cost of meeting the targets set by the Quebec government.

The genesis of this joint market seems quite complex and began in the mid-2000s. The State of California passed the Assembly Bill 32 (AB 32), entitled *California Global Warming Solutions Act of 2006*¹⁰, committing to reduce its greenhouse gas emissions in 2020 to their 1990 level and to consult with other governments to facilitate the development of integrated and cost-effective regional, national and international GHG reduction programs. On February 28, 2007, the Western Climate Initiative was founded by the signing of an agreement between the governors of five U.S. states¹¹: Arizona, California, New Mexico, Oregon and Washington¹². The objective of this initiative of U.S. states was to develop regional GHG emission reduction targets, establish an inter-state register to inventory GHG emissions in the region, and develop a market-based program to achieve the targets set¹³. In 2008, British Columbia, Manitoba, Ontario and Quebec became members of the WCI¹⁴. The objective then is to create a common market for emission allowances based on harmonized state and provincial legislation starting January 1, 2012¹⁵. Moving forward in the global climate struggle in the United States, a number of U.S. states would eventually withdraw from the WCI in 2011¹⁶ and it is with Canadian provinces instead that California would develop the desired links. In winter 2018, only representatives from the governments of Quebec, Ontario, British Columbia¹⁷ and

¹⁰ *California Global Warming Solutions Act of 2006*, Section 1, Division 25.5, Health and Safety Code [*California Global Warming Solutions Act of 2006*].

¹¹ WESTERN CLIMATE INITIATIVE, "History", online: <

<http://www.westernclimateinitiative.org/history>> (consulted September 16, 2018).

¹² The WCI was originally based on the individual efforts of these states in addition to those of two regional initiatives: the West Coast Global Warming Initiative created by California, Oregon and Washington, and the Southwest Climate Change Initiative created by Arizona and New Mexico: see WESTERN CLIMATE INITIATIVE, *History*, online: <<http://www.westernclimateinitiative.org/history>> (consulted September 16, 2018). Two other U.S. states joined the following year: Montana and Utah.

¹³ *Ibid.*

¹⁴ *Id.*

¹⁵ WESTERN CLIMATE INITIATIVE, *Designing the Program*, online:

<<http://westernclimateinitiative.org/designing-the-program>> (consulted September 16, 2018).

¹⁶ SUSTAINABLE BUSINESS, "6 States Pull Out of Western Climate Initiative" November 22, 2011, online: <http://www.sustainablebusiness.com/6-states-pull-out-of-western-climate-initiative-49859/> (consulted September 16, 2018).

¹⁷ Although it remained active in the WCI's work, British Columbia decided to introduce a carbon tax in 2008 and therefore did not develop a cap-and-trade system.

California were on the WCI board of directors¹⁸.

However, between 2007 and 2010, the state and provincial governments that are WCI members would agree to develop a model that includes the main elements of each jurisdiction's need for a cap-and-trade system to be harmonized under a regional program. As such, the *Modèle recommandé pour le programme régional de plafonds-échanges de la Western Climate Initiative (WCI)*, as well as the *Cadre de mise en oeuvre du programme régional de la Western Climate Initiative* led to the establishing of the common structures needed for the carbon market to run¹⁹. Quebec and California first developed their own cap-and-trade systems through legislation and regulation, and in 2013 linked their efforts in a joint carbon market. That was done through an administrative agreement between the two governments: the *Agreement between the Gouvernement du Québec and the California Air Resources Board concerning the harmonization and integration of cap-and-trade programs for reducing greenhouse gas emissions*²⁰, which was signed in Sacramento on September 25, 2013, and in Montreal on September 27, 2013²¹. That agreement came into effect on January 1, 2014. So, in fall 2018, the joint carbon market has now been operating for almost five years. The first joint auction of emission units by the governments of Quebec and California was held on November 25, 2014; the units of the 2014 vintage sold at the median price of C\$13.74 (US\$12.15)²². On August 14, 2018, the 16th joint auction of emission units was held, at the median selling price of C\$20.03 (US\$15.25) for units of the current 2016 and 2018 vintage and C\$19.65 (US\$14.96) for units of the future 2020 vintage, applying a gradual price increase provided for in the legislation of both sub-state entities.²³

As previously discussed, it has always been agreed between the first two partners in this carbon market that other interested partners could join in the future. Ontario implemented

¹⁸ Manitoba has been a WCI partner, but has not developed an effective plan for joining the cap-and-trade system.

¹⁹ GOVERNMENT OF QUEBEC, MINISTRY OF SUSTAINABLE DEVELOPMENT, ENVIRONMENT AND THE FIGHT AGAINST CLIMATE CHANGE, “Le marché du carbone, Western Climate Initiative”, online: <<http://www.mddelcc.gouv.qc.ca/changements/carbone/WCI.htm>> (consulted September 16, 2018).

²⁰This agreement is available online: <<http://www.mrif.gouv.qc.ca/content/documents/fr/ententes/2013-06.pdf>>

²¹ This agreement was ratified by Order in Council of the Government of Quebec: *Agreement between the Government of Quebec and the California Air Resources Board concerning the harmonization and integration of cap-and-trade programs for greenhouse gas emissions – Ratification*, O.C. 1181-2013, (2013) GOQ II 5275.

²² GOVERNMENT OF QUEBEC, MINISTRY OF SUSTAINABLE DEVELOPMENT, ENVIRONMENT AND THE FIGHT AGAINST CLIMATE CHANGE, Quebec’s cap-and-trade system and California’s cap-and-trade program, November 2014 Joint Auction No. 1, Summary Report of Results, December 3, 2014, online: <<http://www.mddelcc.gouv.qc.ca/changements/carbone/ventes-encheres/2014-11-25/sommaire-des-resultats.pdf>> (consulted September 16, 2018).

²³ GOVERNMENT OF QUEBEC, MINISTRY OF SUSTAINABLE DEVELOPMENT, ENVIRONMENT AND THE FIGHT AGAINST CLIMATE CHANGE, Quebec’s cap-and-trade system and California’s cap-and-trade program, Joint Auction No. 16 of August 2018, Summary Report of Results, August 21, 2018, online: <<http://www.mddelcc.gouv.qc.ca/changements/carbone/ventes-encheres/2018-08-14/resultats20180814.pdf>> (consulted September 16, 2018).

a cap-and-trade system in 2017 within Ontario²⁴ and joined the Quebec-California carbon market in 2018. As a result of this development, a new tripartite agreement, signed this time with the Ontario government, was signed on September 22, 2017, namely the *Agreement Respecting the Harmonization and Integration of Cap-and-Trade Programs for Greenhouse Gas Emissions between the Government of Quebec, the Government of California and the Government of Ontario*²⁵. This agreement replaced the one between Quebec and California²⁶. However, the new Conservative government elected in Ontario in summer 2018 announced its intention to abolish its carbon market.

So it was on the basis of an initial administrative agreement negotiated between the executive authorities of two sub-state entities, then a second one replacing the first and officially uniting three sub-state entities, that the main North American carbon market evolved starting in 2018. The tripartite agreement provides for mutual recognition of emission allowances between Parties²⁷, while providing the emitting Party with the option to withdraw from the contract or cancel emission allowances held by registered participants, if they were not issued in accordance with its regulations²⁸. This method therefore establishes an emissions trading and fungibility tool in partner jurisdictions and a market that covers a significant (and potentially growing) number of emitters from key industrial sectors.

The agreement between California and Quebec thus initiated the necessary cooperation between the partners for ensuring that the carbon market operates. It provided for the harmonization of the regulatory provisions, the establishing of the required administrative services, and the sharing of the costs for those services. In 2011, the Western Climate Initiative, Inc. was created by the Western Climate Initiative; it is a not-for-profit corporation that provides administrative and technical support to the partners to facilitate implementation of their respective cap-and-trade programs and the linking of their respective CATS.²⁹ It is therefore the entity responsible for the carbon market infrastructure. The WCI, Inc. subcontracts the managing of several of its responsibilities to

²⁴ *Climate Change Mitigation and Low-carbon Economy Act*, 2016, S.O. 2016, C.7 and *The Cap and Trade Program*, Ontario Regulation 144/16.

²⁵ This agreement is available online: <<http://www.premier-ministre.gouv.qc.ca/entente-liaison-marche-du-carbone.pdf>> (hereinafter Tripartite Agreement) (consulted September 18, 2018).

²⁶ See the *Décret concernant l'entérinement de l'Avenant à l'Entente entre le gouvernement du Québec et le California Air Resources Board concernant l'harmonisation et l'intégration des programmes de plafonnement et d'échange de droits d'émission de gaz à effet de serre*, D 1135-2017, (2017) GOQ II 5534.

²⁷ Thus, s. 6, 1st para of the tripartite agreement sets out the following: "In order to achieve harmonization and integration of the Parties' cap-and-trade programs, mutual recognition of the Parties' compliance instruments shall occur as provided for under their respective cap-and-trade program regulations." See: Tripartite agreement, *supra*, note 25, s. 6, 1st para.

²⁸ "If a Party determines that a compliance instrument that it has issued should not have been issued or must be voided, it shall notify the other Parties. Each Party recognizes and respects the authority of the other Parties to take actions to recover or void compliance instruments that have been surrendered or that are held by registered participants": *Idem.*, s. 6, 2nd para.

²⁹ The WCI Inc. website therefore reports on the three components of the organization's mandate: "Develop a compliance tracking system that tracks both allowances and offsets certificates; Administer allowance auctions; and Conduct market monitoring of allowance auctions and allowance and offset certificate trading": Western Climate Initiative, Inc., online: <<http://www.wci-inc.org/index.php>> (consulted September 18, 2018).

private entities, including the administration of a central registry that lists transactions³⁰, the holding of joint auctions by the Parties³¹ and verification of emission allowances trading in the secondary market.

Although some aspects of the structure and operation of the carbon market have been pooled by the Parties to these agreements, they remain autonomously responsible for deciding on the main parameters for both their fight against global warming³² and their cap-and-trade system for GHG emission allowances. Each of the partners involved has thus set out in their legislation their emissions reduction target, the emitters subject to reduction obligations, the applicable caps and what constitutes “emission allowances” accepted for the purpose of meeting the emission coverage obligations³³.

³⁰ This is the Compliance Instruments Tracking System Service (CITSS).

³¹ Emission allowances are issued electronically and are identified so as to differentiate them, mainly based on their type, source and “vintage”.

³² Thus, in Quebec, the 2013-2020 *Climate Change Action Plan* sets out the Government of Quebec’s actions to help transition to a low-carbon economy. It is mainly through the use of the Green Fund, the revenues of which are generated mainly by the carbon market, that additional reduction measures, as well as adaptation measures, will be put in place. The Green Fund is expected to generate approximately \$3 billion by 2020; see QUEBEC, MINISTRY OF SUSTAINABLE DEVELOPMENT, ENVIRONMENT AND THE FIGHT AGAINST CLIMATE CHANGE, 2013-2020 *Climate Change Action Plan*, online: <<http://www.mddelcc.gouv.qc.ca/changementsclimatiques/plan-action-fonds-vert-en.asp>> (consulted September 18, 2018).

³³ An emission allowance is defined in the Quebec legislation as follows: “[...] a greenhouse gas emission unit, offset credit or early reduction credit, and any emission allowance issued by a partner entity, each allowance having a value corresponding to one metric ton of greenhouse gas CO2 equivalent”: s. 3, para. 5 of the *Regulation respecting a cap-and-trade system for greenhouse gas emission allowances*, CQLR, c. Q-2, r. 46.1.