Essay by The Québec Government on Its Cap-and-Trade System and the Western Climate Initiative Regional Carbon Market: Origins, Strengths and Advantages

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SYNOPSIS

This essay provides a historical overview of the implementation of the Québec cap-and-trade system, examines the advantages of such a system in tackling greenhouse gas emissions, explains the process leading up to the linking of cap-and-trade systems with California within the partnership of the Western Climate Initiative, and provides an overview of the Québec system.

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I.
INTRODUCTION

Climate change is one of the most important challenges facing the earth in the twenty-first century as it poses an important threat to human health, human settlements, biodiversity, the economy, and, of course, the environment. Climate change is mainly induced by human activity and the best way to tackle it is to put a price on the emissions of greenhouse gases (GHGs), which are the main pollutants responsible for the phenomenon. The Québec population and its elected officials widely agree with these statements and have supported this position for several years.

Back in 1992, the Québec government adopted an Order in Council declaring it was adhering to the objectives and principles of the United Nations Framework Convention on Climate Change. Three years later, Québec got an early warning of what

climate change could lead to as a massive rainstorm flooded the region of Saguenay for three consecutive days, destroying homes, bridges, and roads. This was followed in 1998 by an ice storm in the Montreal area that cut off power in the city for days and in its suburbs for weeks. These are examples of events that have increased the level of awareness in Québec about the importance of acting on climate change and prompted successive governments to make this issue one of their top priorities.

The Québec government's first strategic move was to try to better understand what impacts climate change would have in the medium- and long-term in Québec. A research cluster on climate change, called The Ouranos Consortium, was then launched, which today assembles almost a hundred scholars.

Within a few years, these scientists were able to draw a picture of what Québec would have to expect from climate change, such as heat waves and floods in summer, and less snow and frequent thaws in winter. For a Nordic territory, the news of lost economic activity in the wintertime was badly received.

With this picture in hand, the Québec government decided that staying within its comfort zone was not an option. GHG emissions had to be reduced, and Québec society had to prepare itself to tackle the impacts of climate change.

II.
REDUCING QUÉBEC'S GHG EMISSIONS

On the mitigation track, Québec had the advantage of starting on the right foot since it had already one of the lowest carbon footprints in North America thanks to early investments in hydroelectricity.[2] Today, ninety-eight percent of the electricity and about fifty percent of the total energy used in Québec comes from renewable sources, mainly hydraulic and wind energy.[3] This means that Québec needed to focus its attention on its highest GHG-emitting sectors where reductions are notoriously

2. Based on calculations made by the MDDELCC according to the 2012 Canadian and U.S. GHG inventories, Quebec GHG emissions represented 9.7 tons CO_2e per capita that year.

3. Government of Québec, *Electricity Generation*, http://www.mern.gouv.qc.ca/energie/statistiques/statistiques-production-electricite.jsp.

difficult to achieve, namely in industrial processes, buildings and mostly transport.

To that end, the government devised its first Climate Change Action Plan covering the years 2006 to 2012 and, in order to finance it, began imposing a carbon levy on fossil fuels—a bold move that no one had yet dared to make in North America.[4] Québec therefore became the first jurisdiction on the continent to send a carbon price signal throughout its whole economy. This levy raised 1.2 billion dollars in revenue over the life span of the plan; this revenue was exclusively earmarked for a Green Fund and was used to implement GHG mitigation and climate change adaptation measures contained in Québec's 2006-2012 Climate Change Action Plan. Several of these measures provided incentives for businesses to be more energy efficient and to switch to less polluting sources of energy. Québec also invested in public transit, cycling paths, electric vehicles, energy efficiency, clean energy, more efficient freight transport, and public awareness campaigns.

According to the latest Canadian GHG inventory, Québec surpassed its 2012 target of reducing its GHG emissions by six percent below 1990 levels.[5] During the same period, Québec's GDP grew by fifty-four percent, which is testimony to the fact that Québec has been successful in decoupling GHG emissions and economic growth. In addition, Québec's industries have reduced their dependence on imported, high-priced foreign oil, lowered their operating costs, increased their profits, and become more competitive. Public transit usage has also increased significantly in the last few years.

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4. http://www.mddelcc.gouv.qc.ca/infuseur/communique.asp?no=1230

5. Government of Québec, *Quebec Sets up the Annual Green Fund to Finance the Action Plan on Climate Change* (Nov. 30, 2007), http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/8108.php.

III.
JOINING THE WCI

If Québec were to reduce its GHG emissions even further, however, the government realized that a stronger, more robust tool than a carbon levy was needed to integrate the hidden economic, social, and environmental costs related to GHG emissions into the economy and business decision-making. The Western Climate Initiative (WCI), which intended to put in place an economy-wide market-based mechanism to tackle GHG emissions, was then deemed to be the best and the most attractive alternative. In 2008, Québec joined the WCI and began working in close collaboration with its new partners to elaborate the design guidelines and operating rules for a regional cap-and-trade (C&T) system. This system would later become the centerpiece of Québec's Climate Change Action Plan spanning the years 2013 to 2020.

IV.
WHY A C&T SYSTEM? A SURVEY OF ITS ADVANTAGES

Several reasons motivated the choice of a C&T system over other possible climate solutions. First and foremost, a C&T system provides governments with the best guarantee of actually reducing GHG emissions, which is, after all, the main goal of this undertaking. A C&T system sends a strong carbon price signal to a wide range of economic stakeholders—a signal that makes them aware that GHG emissions now come with a price tag. In other words, the system tells them they cannot carry on as before and emit greenhouse gases into the atmosphere without consequences.

A C&T system is a flexible economic tool that differs from the standards and criteria traditionally used to achieve environmental goals because it successfully addresses and joins environmental protection, environmental management, the fight against climate change, and economic development objectives such as growth, efficiency, modernization and competitiveness.

While a C&T system requires major polluters to consider the costs of their GHG emissions when they make their business decisions, it provides them at the same time with incentives to

improve their production methods, adopt energy efficiency measures, invest in new technologies, and turn to cleaner energy sources. In short, it encourages them to get a head start into the growth economy of the future that is the green economy.

A C&T system's flexibility stems from the many options available to emitters in terms of regulatory compliance. For example:

- covered emitters may choose to reduce their GHG emissions by improving their energy efficiency, relying on cleaner or renewable sources of energy, or enhancing their production methods, either by using the best technologies currently on the market or developing new ones;
- covered emitters that have reduced their GHG emissions and have a surplus of emission allowances at their disposal may sell them on the carbon market and keep the revenues to pay for past investments or for new investments that will make them more competitive and more profitable; and
- covered emitters that have to obtain emission allowances to meet their regulatory obligations may turn to the carbon market created by the C&T system to:
    - buy emission units at government auctions;
    - buy offset credits sold by promoters as a result of GHG emission reductions in sectors not covered by the C&T system, in accordance with implementation and quantification protocols approved by the Minister; or
    - buy emission allowances[6] sold by other carbon market participants or on the derivatives market.

The C&T system also creates economic activity around the measurement and verification of GHG emissions from covered emitters. Offset credits may also provide benefits to promoters of GHG emission reduction projects and accredited experts tasked with verifying and validating GHG reduction projects to ensure

6. Emission allowances encompass emission units, offset credits and credits for early reductions. Each emission allowance equals one metric ton CO_2 equivalent of GHG.

that they meet regulatory criteria.

Furthermore, by establishing a C&T system and participating in a carbon market, a government can demonstrate its leadership in the fight against climate change and raise its profile in the international climate arena.

Finally, a C&T system generates substantial revenue for participating states. It is, of course, up to each implementing government to use carbon market revenues as they see fit. For instance, governments may choose to spend the proceeds of the auctions to:

- reduce their state's dependence on imported oil, especially by helping their businesses improve their energy efficiency and production methods;
- encourage alternative energy sources that emit fewer GHGs;
- encourage the use of renewable energy and clean technologies;
- stimulate the innovation, design and marketing of new low-carbon technologies;
- improve public transit;
- provide incentive programs for citizens to reduce their fossil fuel consumption (rebate for the purchase of electric cars, tax credits for home improvements and energy efficiency, etc.);
- create green and sustainable jobs oriented toward the new economy;
- prepare their communities to adapt to the effects of climate change and reduce the costs of climate disasters; and/or
- lower taxes on low and medium-income households, particularly those likely to be affected by a resulting increase in the price of electricity, or return the revenues in whole or in part to those households in the form of a rebate.

For its part, Québec has chosen to allocate all the revenues from its C&T auction of emission units to finance a wide variety of mitigation and adaptation measures contained in its 2013-2020 Climate Change Action Plan.[7]

7. Government of Québec, Québec in Action: Greener by 2020 (2012), http://www.mddelcc.gouv.qc.ca/changements/plan_action/pacc2020-en.pdf.

V.
THE QUÉBEC 2013-2020 CLIMATE CHANGE ACTION PLAN

The 2013-2020 Climate Change Action Plan (the "Plan") provides for many initiatives that will give support for GHG mitigation and adaptation programs in partnership with businesses, municipalities, research institutions, civil society and citizens. The Plan also promotes investments in research and innovation, aims to raise awareness on climate change, and seeks to lower the carbon footprint of the public sector. Transportation has been a prime concern since about forty-four percent of all GHG emissions in Québec stem from that sector alone. Most of the Plan's expenses will therefore focus on initiatives aimed, among other things, at increasing public transit ridership, electrifying public and private transport fleets, and improving the energy efficiency of freight transport.

In the long-term, Québec's aim is to help the economy move towards sustainable modes of production, consumption and organization in ways that will significantly decrease its dependency on fossil fuels. These investments should provide a comparative advantage to Québec businesses, spur new technological development, and create lucrative permanent jobs in tomorrow's greener economy. Improved air quality will also translate into several health benefits for our communities. The 2013-2020 Climate Change Action Plan will be periodically revisited to make sure Québec is on track to meet its 2020 GHG mitigation goal.

VI.
A BRIEF HISTORY OF QUÉBEC'S IMPLEMENTATION OF ITS CAP-AND-TRADE SYSTEM

In 2009, the Québec government initiated a sixty-day public consultation process before submitting to the Québec National Assembly a bill granting the Government the enabling powers to implement a C&T system through regulation. A parliamentary hearing was then held where most industry representatives, having been fully briefed on the system, came to express their opinion and formulate recommendations. In June of that year, the 125 members of the Québec National Assembly adopted the

Act to Amend the Environment Quality Act and Other Legislative Provisions in Relation to Climate Change by unanimous consent.[8]

In November 2009, after a series of parliamentary committee hearings where all interested parties were welcome to participate, the Government of Québec adopted by Order-in-Council its GHG emission reduction target for 2020; a reduction of twenty percent below 1990 levels. This target was essential to the setting of the annual GHG emission caps of the C&T system.

The Ministry for Sustainable Development, Environment, and the Fight Against Climate Change (Ministry) undertook the task of drafting the regulation and subsequent amendments with respect to Québec's C&T system. The Ministry made sure that covered industries were an integral part of the C&T system development, even beyond the mandatory sixty-day public consultation process accompanying the adoption of each set of regulation. Indeed, prior to publishing this regulation, the Ministry created ten sectoral-discussion roundtables that gathered representatives from the major GHG emitting industries, namely, refineries, electricity production, cement, aluminium, chemical, lime, metallurgy, mining and pellet, and pulp and paper. The tenth roundtable gathered all remaining covered industries.

The key to the successful implementation of Québec's C&T system resided in the fact that Québec officials established a dialogue with the soon-to-be covered facilities to involve their management in the process from the very beginning. Québec officials provided them with detailed information on the scope, impacts, and benefits of the system, as well as on the formula used to allocate a certain quantity of free allowances to trade-exposed industries. Presentations were made to explain the workings of the C&T system and each facility's obligations under

8. GOVERNMENT OF QUÉBEC, BILL 42: AN ACT TO AMEND THE ENVIRONMENT QUALITY ACT AND OTHER LEGISLATIVE PROVISIONS IN RELATION TO CLIMATE CHANGE (2009), *available at* http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=5&file=2009C33A.PDF.

the laws and regulations governing the system. Training was also provided to, among others, business representatives in charge of implementing the system in their facility. This allowed management to evaluate the system's overall impact on their business.

Most importantly, however, the government welcomed stakeholders' feedback, listened to their concerns, and remained available to answer any questions. The government even tried to accommodate stakeholders when solutions did not conflict with the primary purpose of the law, which is to achieve GHG emission reductions, not place unnecessary economic or administrative hurdles on businesses. In addition, the government provided covered industries with additional incentives to become more efficient, particularly with respect to energy consumption, and to make cost-saving changes. For instance, the 2006-2012 and 2013-2020 Québec Climate Change Action Plans introduced several measures to help businesses reduce their carbon footprint and make the transition towards more sustainable sources of energy.

As a result, when the time came to adopt the Regulation Respecting a C&T System for Greenhouse Gas Emission Allowances in December 2011, which is based on the WCI-designed guidelines and operating rules published in 2008 and 2010, covered facilities knew what to expect.[9] Overall, the government succeeded in passing the regulation with a shared understanding that Québec must do its part to fight climate change.

Also in 2011, the Québec government adopted amendments to its *Regulation Respecting Mandatory Reporting of Certain Emissions of Contaminants Into the Atmosphere* to bring it in line with the rules adopted by the WCI.[10] Companies and

9. GOVERNMENT OF QUÉBEC, ENVIRONMENTAL QUALITY ACT: REGULATION RESPECTING A CAP-AND-TRADE SYSTEM FOR GREENHOUSE GAS EMISSION ALLOWANCES, (2015) *available at* http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R46_1_A.HTM. [hereinafter CAP-AND-TRADE REGULATION].

10. GOVERNMENT OF QUÉBEC, ENVIRONMENTAL QUALITY ACT: REGULATION RESPECTING MANDATORY REPORTING OF CERTAIN EMISSIONS OF CONTAMINANTS INTO THE ATMOSPHERE, (2015) http://www2

municipalities emitting more than 10,000 tons of CO_2 into the atmosphere were then required to declare their GHG emissions. This data allowed the government to identify Québec's major emitters and helped create its C&T system.

In November 2011, Québec, California, Ontario, and British Columbia created WCI Inc., a non-profit organization providing administrative and technical services to support the implementation of the C&T systems.[11] These services include developing and operating a tracking system for GHG emission allowances, overseeing government sales of emission allowances, implementing a market monitoring system, and providing assistance to participants.

In December 2012, an amendment to the C&T regulation was adopted in order to set the operating rules of Québec's offset system. An Order-in-Council was also adopted at the same time regarding the determination of the annual cap on GHG emissions allowances for the C&T system during the 2013-2020 period. The caps were established using the most recent GHG emissions data available and business-as-usual scenarios in order to achieve a reduction of twenty percent below the 1990 level of Québec's GHG emissions by 2020. Both the amendment to the Regulation and the Order-in-Council were adopted following the regular sixty-day consultation process.

VII.
LINKING WITH CALIFORNIA

Québec's GHG mitigation objective is ambitious and its C&T system is central to meeting it. But the government has always known that the Québec carbon market, due to the size of the province's economy, would not be fluid enough to be efficient in the long term. This is why Québec joined the WCI and adopted an amendment to its C&T regulation in December 2012 that allowed the linking of its

.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R15_A.htm. [hereinafter EMISSIONS OF CONTAMINANTS REGULATION].

11. WESTERN CLIMATE INITIATIVE, http://wci-inc.org/ (last visited Mar. 2, 2015).

system to that of California, the other WCI jurisdiction that had implemented a C&T system, and, eventually, other partners.

For two years, Québec and California have worked hand-in-hand to harmonize the rules of their respective systems. Even though most of the regulatory provisions of both systems had been conceived in close collaboration with WCI partners since 2008, and were therefore similar, if not identical, some adjustments still had to be made and obstacles had to be removed, for both governments and system participants. This crucial step allowed the two states to harmonize their respective regulations and make the two systems operate in an integrated manner.

This alliance meant that both partners had to agree on all the detailed design and implementation elements and requirements of their linked C&T system. For instance, since allowances are only created in electronic form, all transfers[12] of allowances between systems had to take place within a common registry and the rules surrounding such transfers had to be identical.

The fact that Québec's regulation was drafted according to civil law principles, while California's regulation follows common law principles, was also an obstacle that had to be overcome. In addition, the Québec regulation was originally drafted in French, while the California regulation was in English; agreeing on a common wording and a common approach in translating texts often presented quite a challenge. Each regulatory line was thus compared and scrutinized to make the linking run smoothly.

This ambitious task of harmonization and integration moved one step closer to fruition in September 2013 with the signing of a linking agreement between the Québec government and the California Air Resources Board; this agreement codified Québec and California's intention to finalize the linking process.[13] Such an agreement was not only mandatory under Québec law, it also represented a milestone in Québec international relations and, as

12. The process for transferring GHG allowances is described in Sections 24 to 35 of the *Regulation pertaining to the Cap-and-trade system for greenhouse gas emission allowances*.

13. GOVERNMENT OF QUÉBEC, O.C. 1181-2013: AGREEMENT BETWEEN THE GOVERNMENT DU QUÉBEC AND THE CALIFORNIA AIR RESOURCES BOARD CONCERNING THE HARMONIZATION AND INTEGRATION OF CAP-AND-TRADE PROGRAMS FOR REDUCING GREENHOUSE GAS EMISSIONS (Nov. 12, 2013), *available at* http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=1&file=3100.pdf.

such, was approved by the Québec National Assembly by a unanimous vote.

The linking came into effect on January 1st, 2014, which meant that participants to the Québec or California C&T systems could now exchange allowances, and allowances from both could be used by an emitter that is covered by either system to comply with its regulatory obligations. **The Québec/California carbon market, also known as the WCI regional carbon market, thus became not only the largest C&T system in North America, but also the only carbon market in the world that has been designed and operated by subnational governments from two different countries.** In addition, Québec and California are the first two governments in the world to have overcome the technical and legal barriers preventing the linking of two existing C&T systems to create a unified carbon market.

VIII.

QUÉBEC'S C&T SYSTEM – AN OVERVIEW

The Ministry for Sustainable Development, Environment, and the Fight against Climate Change is responsible for the implementation and smooth functioning of Québec's C&T system. The Ministry notably approves registration requests in the system, oversees the creation and distribution of emission allowances, and manages the auction results.

The C&T Regulation provides that persons or municipalities operating a facility whose annual GHG emissions, excluding CO_2 emissions related to the combustion of biomass, are greater than or equal to 25 kt CO_2 equivalent ($CO_{2eq.}$), are subject to the system.[14] The first compliance period[15] of Québec's C&T system started in 2013 by covering GHG emissions of some sixty companies and eighty facilities operating in a number of sectors associated with industrial processes, the manufacturing of goods, as well as the production and importation of electricity.

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14. CAP-AND-TRADE REGULATION, *supra* note 8.

15. A compliance period is a period at the end of which a regulated entity must submit to the Government a number of allowances (emission units, offset credits or credit for early reductions) equal to the total GHG emissions reported (and verified) for the period.

As of 2015, the system applies to Québec's entire economy by also covering GHG emissions related to the use and combustion of fossil fuels that are sold or distributed, thereby encompassing more than eighty percent of all Québec's GHG emissions. This broad coverage[16] provides stability to the system and makes it a comprehensive tool to reduce the province's GHG emissions.

In addition, offset credit protocols have been developed or are being developed to allow GHG emission reductions in sectors not covered by the C&T system, such as agriculture, forestry and waste disposal. For instance, protocols have been approved for cutting GHG emissions from certain landfill waste sites and manure storage areas, and reducing ozone depleting substances (ODS) used in refrigerating appliances and contained in the appliances' insulating foam. The government is also working on developing other offset credit protocols, such as one on forestry and another on the capture of methane in coal mines. The use of offset credits is limited to eight percent of the number of compliance instruments that the regulated entities must submit.

IX.
THE STRENGTHS OF QUÉBEC'S C&T SYSTEM

The Québec C&T Regulation contains a number of provisions and safeguards designed to send a strong carbon price signal to the Québec economy; protect the emission unit price, as much as possible, from excessive economic fluctuations; avoid the over-allocation of emission units on the market; ensure the environmental integrity of offset credits; and avoid double counting.

A. *Accurate Data*

The Québec Regulation Respecting Mandatory Reporting of Certain Emissions of Contaminants into the Atmosphere stipulates that covered entities must report their GHG emissions using specific and rigorous protocols.[17] Furthermore, an accredited verifier must independently verify data from these reports in accordance with ISO standards. This process ensures that these calculations, which

16. The requirements relating to the coverage of GHG emissions are described in Chapter III of Title II (Sections 19 to 23) of the *Regulation pertaining to the Cap-and-trade system for greenhouse gas emission allowances*.

17. EMISSIONS OF CONTAMINANTS REGULATION, *supra* note 9.

determine the number of emission allowances that must be remitted to the Minister by covered emitters at the end of each compliance period, will be based on reliable and actual data. In addition, the WCI stipulates that this Regulation and the standards it establishes must be harmonized amongst all its members. In this way, everyone can be assured that one-ton of GHG emitted and calculated by an emitter is the same in all WCI jurisdictions.

B. *A Strong Price Signal Sent to the Economy Through a Floor Price. . .*

The C&T Regulation provides for a minimum price for emission units sold at auctions. At the first auction, which was held on December 3, 2013, the minimum price, or "floor price," was CAD $10.75. This price is scheduled to increase by five percent plus inflation annually until 2020. This way, the carbon price signal sent to Québec's economy will also continue to increase. The minimum price also provides a guarantee against a situation, encountered in other C&T systems, where the distribution of too many emission units leads to a downward pressure on prices.

When Québec starts holding joint auctions with California, the minimum price will be the highest, in U.S. dollars, between Québec and California's minimum prices. This mechanism uses the Bank of Canada's exchange rate between Canadian and American currency at noon on the day of the auction.

The emission unit selling price at auctions is determined by the lowest offer that allows for selling the last GHG emission unit available. This offer can be equal to or greater than the floor price. Because purchasing limits have been established, bids are confidential, and financial guarantees are required to cover them, the system prevents emission unit prices from skyrocketing and emission units from being hoarded by the most financially sound companies covered by the system, or by participants with greater financial resources.

C. *. . . and a Ceiling Price*

Should the carbon market find itself in a situation where the demand for emission allowances significantly exceeds the supply, which would disproportionately increase the emission unit price, the C&T Regulation stipulates that the Minister may hold a reserve

sale[18] up to four times a year. The C&T Regulation provides for the creation, during each compliance period, of a reserve of a certain percentage of emission units available under the cap that may be used for sale at auction. During this reserve sale, emission unit prices have been set at three levels (A: $40; B: $45 and C: $50), which increase annually by five percent plus inflation starting in 2014. Only emitters covered by the C&T Regulation that do not have enough emission allowances to meet their regulatory obligations will be allowed to participate in the sale. This will ultimately have the effect of imposing a "ceiling price" on emission units.

D. *Avoiding Carbon Leakage*

Companies covered by the C&T system that are competing on the international scene and are above all price-takers do not have the leeway to raise their prices and thus recoup the costs of the emission units they must buy to fulfil their regulatory obligations. In addition, these companies are vulnerable to "carbon leakage" (i.e., the transfer of production to jurisdictions where there is no C&T system or a similar price on carbon). Therefore, they receive a majority of the emission units they need to comply with the C&T regulation free of charge. However, as of 2015, the number of these free emission units will decrease by one to two percent per year to provide emitters with an additional incentive to reduce their GHG emissions. As for the electricity and fossil fuels distribution sectors, which can pass on increased costs to their consumers and are therefore not subject to carbon leakage, covered emitters from those sectors have to buy all the emission allowances they need at auction, on the carbon market, or on the derivatives market in order to meet their regulatory obligations.

E. *Avoiding Over-Allocation*

In addition, if all emission units available during an auction are not sold, the C&T Regulation provides for unsold emission units to be temporarily taken out of circulation and gradually put back up for sale when the auction price of emission units climbs above the minimum price for two consecutive auctions.

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18. Called "sales by mutual agreement of the Minister".

F. *Avoiding Market Manipulation*

To avoid market manipulation, the C&T Regulation provides for purchase limits at auctions and reserve sales of emission units. In addition, WCI, Inc., a non-profit organization that provides administrative and technical services to support the C&T system's implementation, has retained the services of an independent firm to oversee the market and detect any evidence of wrongdoing. Finally, the C&T Regulation provides for severe penalties for non-compliance with its provisions. For instance, an emitter's failure to cover the GHG emissions of a covered establishment on the expiry of the compliance deadline leads to the suspension of its capacity to sell emission units, and the application of an administrative sanction equal to three emission units for each emission allowance needed to complete the coverage.

G. *An Offset Credit System Based on Rigor and Environmental Integrity*

Projects eligible for offset credits under the C&T system are those that meet regulatory requirements and are undertaken according to protocols prescribed by regulation. All these protocols provide for a rigorous validation and verification process in compliance with ISO standards before the completed projects can generate offset credits. To avoid double counting, these credits cannot be used in conjunction with another C&T system.

If an offset project promoter places offset credits on the market, and it is revealed that the credits are invalid and the integrity of the environment is compromised, the C&T Regulation requires that the promoter replace the credits. If the promoter is unable to do so, the minister can use his Environmental Integrity Account to replace them, while at the same time retaining his options for recourse against the promoter. The Minister withholds three percent of each admissible offset credit to cover such situations and deposits them in that account, which can only be used for that purpose. This is a characteristic of the Québec C&T system that is not found in the California system.

H. A Flexible System That Allows for Long-Term Planning. . .

The C&T Regulation specifies that the first compliance period spans only two years, from January 1, 2013 to December 31, 2014, but subsequent compliance periods last three years each. In all cases,

covered entities have until November 1 following the end of a compliance period to remit to the Minister the amount of emission allowances corresponding to their reported and verified GHG emissions. These deadlines give emitters the time and flexibility needed to comply with their regulatory obligations and plan investments aimed at reducing their GHG emissions. Furthermore, they can bank their surplus emission allowances and use them during a future compliance period. For instance, a covered entity that plans to expand its activities or increase its production in the coming years may choose to acquire more allowances today and bank them for use in a future compliance period. However, they are prohibited from borrowing emission allowances from a future compliance period.

I. *. . .and For Covered Businesses to Grow*

The number of emission units given free of charge to trade-exposed industries is calculated based on GHG emission-intensity targets and adjusted according to the actual annual production level of covered facilities, as taken on an individual basis. This approach allows each covered entity to expand production without being penalized. Thus, as output increases, so could the number of emission units allocated free of charge.

J. *Solid, Predictable Financing*

The Québec government has elected to allocate all the revenues resulting from auctions and reserve sales to finance initiatives contained in the 2013-2020 Climate Change Action Plan. The C&T system's floor price therefore ensures minimal, stable and predictable funding for these initiatives, and makes long-term planning possible. Indeed, we estimate that the 2013-2020 Climate Change Action Plan will have a budget of about $3.3 billion by 2020, $ 2.8 billion of which will come from the C&T system.

Additionally, since each auction participant must submit a financial guarantee to the Minister via a financial institution, the government is assured that the winners will pay the amounts that were committed for bidding on the sale's emission units.

X.
IN CONCLUSION

The Québec government has demonstrated that it possesses the required vision and political will to tackle climate change. By implementing its C&T system, Québec is sending a clear message to all North American stakeholders that putting a common price on carbon throughout North America is not only feasible, but highly desirable.

The collaboration shown by Québec and California within the WCI framework is an excellent example of North American regional cooperation that is economically and environmentally beneficial for both partners. Having successfully collaborated with one another and created a winning partnership model, Québec and California are reaching out to other governments within North America, and even beyond, to join the WCI carbon market in the pursuit towards a green, low-carbon economy, The WCI regional carbon market should only be the beginning of a North American-wide carbon market, and both partners welcome expressions of interest on the part of American states and Canadian provinces. In the future, Québec and California hope to expand this shared carbon market even more by linking with similar markets around the globe. Indeed, the larger the reach of WCI's carbon market, the more effective it will be, and the better positioned it will be to contribute to the global effort to combat climate change.

For more information:
http://www.mddelcc.gouv.qc.ca/changements/carbone/index-en.htm
http://www.wci-inc.org/index.php