International Carbon Action Partnership

Canada - Québec Cap-and-Trade System

General Information

ETS Description

Québec's Cap-and-Trade (C&T) System started in 2013 and covers ~80% of the province's GHG emissions.

The system covers fuel combustion emissions in the mining, power, buildings, transport, industrial, agriculture and forestry sectors, as well as industrial process emissions. Covered entities must surrender 'emission allowances'* for all their covered emissions, and allocation is based on auctions or free allocation. The cap is determined top-down by the government and set in law years before compliance obligations are realized.

Most emission units are auctioned, with a portion freely allocated to emissions-intensive, trade-exposed (EITE) sectors and to electricity producers with fixed-price sales contracts concluded before the announcement of the system. Québec also keeps an emission units reserve account to sell to entities that do not have enough allowances to cover their obligations. Covered entities can also cover a part of their GHG emissions by using offset credits.

Québec has been a member of the Western Climate Initiative (WCI) since 2008 and formally linked its system with California's in 2014.

* In Québec's Cap-and-Trade System, the term 'emissions allowance' includes emission units (i.e., the main compliance instrument, what other systems typically refer to as 'allowances'), offset credits, early reduction credits and any other emission allowance determined by regulation, each being equal to one tonne of GHG expressed in CO_2 equivalents.

ETS Status

in force

Jurisdictions

Québec

Year in Review

In 2024, Québec made progress to refine its C&T system and explore potential international collaboration. Following stakeholder consultations in 2023, Québec assessed the feedback received to prepare draft regulations. The process was coordinated with California, whose C&T program is linked to Québec's.

Looking ahead, Québec plans to publish draft regulations in early 2025, with enactment expected in spring 2025. Proposed changes include addressing the estimated emissions units gap between supply and demand, adjusting offset credit limits, increasing reserve trigger prices, modifying compliance periods to align with 2030 and 2050 targets and updating global warming potentials for the next compliance period.

In terms of international collaboration, key developments include the joint statement in March 2024 with California and Washington, expressing interest in exploring program linkage. This was followed by a second announcement in September 2024 to begin linkage agreement discussions.

Sectoral coverage

Agriculture and/or forestry fuel use
Mining and extractives
Transport
Buildings
Industry
Power

Revenue usage

Climate mitigation

Emissions & Targets

Overall GHG Emissions excl. LULUCF (MtCO2e)

79.3 $MtCO_2e$ (2022)

GHG reduction targets

By 2030: 37.5% reduction from 1990 GHG levels ("Order in Council 1018-2015")

By 2050: Carbon neutrality ("2030 Plan for a Green Economy")

Current Allowance Price (per t/CO2e)

Updated prices available here

Size & Phases

Covered emissions (2022)

76.00%

Verified ETS Emissions

60.00$MtCO_2e$

GHGs covered

CO2, CH4, N2O, SF6, HFCs, PFCs, NF3

Phases

FIRST COMPLIANCE PERIOD: Two years (2013 to 2014)

SECOND COMPLIANCE PERIOD: Three years (2015 to 2017)

THIRD COMPLIANCE PERIOD: Three years (2018 to 2020)

FOURTH COMPLIANCE PERIOD: Three years (2021 to 2023)

FIFTH COMPLIANCE PERIOD: Three years (2024 to 2026)

Cap or total emissions limit

A cap limits the total emissions allowed in the system.

FIRST COMPLIANCE PERIOD: The system started in 2013 with a cap of 23.2 $MtCO_2e$.

SECOND COMPLIANCE PERIOD: With the program expanding to include fuel distribution, the cap rose to 65.3 $MtCO_2e$ in 2015. The cap declined to 61 $MtCO_2e$ in 2017, at an average rate of 3.2% per year.

THIRD COMPLIANCE PERIOD: The cap started at 59 $MtCO_2e$ and declined at an average annual rate of 3.5% to reach 54.7 $MtCO_2e$ in 2020.

FOURTH COMPLIANCE PERIOD AND BEYOND: After a slight nominal increase in the cap in 2021, to 55.3 $MtCO_2e$, due to an adjustment of the global warming potential of different GHGs, the cap will be reduced annually by ~2.2% on average until 2030. This will result in a cap of 44.1 $MtCO_2e$ in 2030.

Sectors and thresholds

FIRST COMPLIANCE PERIOD: Producers and importers of electricity and industrial facilities.

SECOND COMPLIANCE PERIOD AND BEYOND: Sectors from the first compliance period as well as the distribution and importation of fuels used in the transport and building sectors and in small- and medium-sized businesses.

TYPES OF FUELS COVERED: Gasoline, diesel fuel, propane, butane, kerosene, coal coke, petroleum coke, coal, distillation gas, ethanol, biodiesel, biomethane, natural gas, and heating oil

INCLUSION THRESHOLDS: Emissions equal to or greater than 25,000 tCO_2e per year. Fuel distributors that distribute 200L or more of fuel are included.

VOLUNTARY EMITTERS (OPT-IN COVERED ENTITIES): Since 2019, emitters from capped sectors that have reported emissions equal to or greater than 10,000 tCO_2e per year but less than 25,000 tCO_2e per year may voluntarily register with the C&T System as a covered entity. If their production activity is eligible, they may receive free allocation.

Point of regulation

Upstream (buildings, transport, agriculture and forestry fuel use); point source (mining and extractives, industry, in-province power); imported electricity at the point of first delivery onto Québec's electricity grid.

Type of entities

Industrial facilities, fuel distributors, and electricity importers

Number of entities

127 covered entities, representing 172 facilities (83 industrial facilities, 47 fuel distributors and 42 opt-in emitters) (2023)

Allowance Allocation & Revenue

Allowance allocation

Emission units are distributed via both auctions and free allocation by the government or can be directed to reserves for future sales.

FIRST TO THIRD COMPLIANCE PERIOD:

Free allocation: EITE sectors received a portion of their emission units for free because they were considered vulnerable to carbon leakage. Eligible sectors included aluminum, lime, cement, chemical and petrochemicals, metallurgy, mining and pelletizing, pulp and paper, petroleum refining, and others such as manufacturers of glass containers, gypsum products, and some agro-food products. Electricity producers with a fixed-price sales contract signed before 2008 that did not allow carbon cost passthrough were also eligible to receive free units. Free allocation was also issued to compensate for the carbon cost already paid on electricity imported from a non-WCI jurisdiction (for example, RGGI).

In most cases, the volume of free allocation was determined by actual levels of production or consumption of raw materials (depending on the reference unit for the sector), a declining intensity target based on historical averages, depending on the type of emissions (e.g., fixed process, combustion, and other, mainly fugitive emissions), and an assistance factor. Until 2020, the assistance factors for all EITE sectors were set at 100%. If the available historical data was not sufficient, an energy-based methodology was used to determine the amount of free allocation issued.

Over the first three compliance periods, ~148 million emission units, representing ~36% of the cap for the period, were allocated for free.

Auctioning: Electricity and fuel distributors (included since 2015) were required to buy 100% of their allowances, with some narrow exceptions (e.g., on electricity contracts prior to 2008 that have not been renewed or extended). Emission units were auctioned quarterly. Units that remained unsold after an auction could be offered for sale again when the price at two consecutive auctions settled above the minimum price.

Over the first three compliance periods, ~256 million emission units, representing ~63% of the cap for the period, were auctioned or directed to reserves.

FOURTH COMPLIANCE PERIOD: Free allocation: Assistance factors were determined based on trade exposure and emissions intensity. These metrics grouped the industrial sector's carbon leakage risk into three categories ("low", "medium", and "high"), with assistance factors of 90%, 95%, and 100% respectively. An assistance factor of 60% applied to steam production for industrial purposes and off-site electricity producers with the fixed-price sales contracts signed before 2008. For 2021 to 2023, ~59 million emission units, representing ~36% of the cap for the period, were allocated for free.

Auctioning: The same auctioning provisions as in the first three periods were used. For 2021 to 2023, ~96.6 million emission units, representing ~60% of the annual caps, were allocated by auction or directed to reserves.

2024 ONWARD:

Free allocation: New rules adopted in September 2022 introduced a more significant decrease in the level of free allocation from 2024. The rate of reduction is determined by the following factors: i) minimal expected effort of at least one percentage point (pp); ii) the cap decline factor of 2.34 pp; iii) an extra expected effort of 0 to 1.36 pp based on the carbon leakage risk; iv) whether the proportion of fixed process emissions exceeds 50% of total emissions in which case the extra effort expected is reduced by 0.272 pp; and v) a trajectory modulation factor, which will reduce the rate of reduction in the initial years and increase it in the later ones, with no net effect over the 2024 to 2030 period. A portion of the emission units resulting from the reduction in the level of free allocation are consigned for auction on behalf of emitters. The proceeds from the auctioning of the consigned units are set aside on behalf of each business to finance projects related to climate transition. The intensity targets for 2024 to 2030 are determined based on the intensity targets set for 2023 as well as the emission levels observed between 2017 and 2019.

Auctioning: The same auctioning provisions apply from the first four periods. The share of the 2024 cap auctioned as vintage 2024 Québec-owned allowances so far is 59%.

Auctioning share

59%

Total Revenue

CAD 9.9 billion (USD 7.5 billion) since beginning of program

CAD 1.4 billion (USD 1.1 billion in 2024)

2024

Use of Revenues

All auction revenues go to the Electrification and Climate Change Fund, which replaced the Green Fund in November 2020. The new fund, entirely dedicated to climate action, supports the implementation of mitigation and adaptation measures contained in the "2030 Green Economy Plan" and includes energy efficiency, electrification, and public transport.

Since the beginning of the program, more than CAD 9.9 billion (USD 7.5 billion) has been raised.

Flexibility & Linking

Offset credits

The use of offset credits is allowed.

QUALITATIVE CRITERIA: Offset credits generated in Québec from eligible projects are fungible in the WCI carbon market. A new regulatory framework based on ministerial regulations, which came into force in July 2021, will gradually replace the previous system of offset protocols. The ministerial regulations allow the following offset project types:

1. reclamation and destruction of methane from landfill sites;
2. destruction of halocarbons;
3. carbon sequestration through afforestation or reforestation on private lands; and
4. anaerobic digestion of manure.

For a transitionary period, the following project types will remain eligible under three protocols:

5. destruction of methane from covered manure storage facilities;
6. destruction of methane from drainage systems at active coal mines; and
7. destruction of methane from ventilation systems of active underground coal mines.

Other types of projects under consideration include fuel substitution in the marine transport sector, improvements in the application practices of agricultural fertilizers, and afforestation or reforestation on public lands.

Québec offset credits are 100% guaranteed. This means that in cases where offset credits issued for a project are later deemed illegitimate by the regulator, the offset promoter (i.e., project owner) is required to replace them. If credit recovery is not possible, an equivalent number of offset credits is retired from the government's environmental integrity account. This account is funded by the automatic withholding of 3% of offset credits issued from all offset projects.

QUANTITATIVE LIMITS: Offset credits can be used for up to 8% of each entity's compliance obligation.

Over the first four compliance periods (2013 to 2023), more than 33 million offset credits were surrendered by entities in Québec, representing around 6% of the total compliance obligation. 96% of these surrendered offset credits were issued in California.

In the fourth compliance period, 13.6 million offset credits were surrendered by Québec-based entities, with 72% (9.85 million) from US forest projects, 21% (2.89 million) from mine methane capture projects, 3% (433,353) from livestock manure digester projects, 2% (280,759) from landfill methane destruction projects, and 1% (189,115) from ozone-depleting substances projects.

Banking and borrowing

Banking is allowed, but the emitter is subject to a general holding limit on emission units to which all entities in the system are held. The holding limit decreases in line with the annual emission unit budget.

Borrowing is not allowed. However, some emission units from future vintages are offered at each auction and can be traded but not used for compliance until the compliance date for the respective vintage year.

Links with other Systems

Québec linked its system with California's in January 2014. The two extended their joint market by linking with Ontario in January 2018 until the termination of Ontario's system in mid-2018. In March and September 2024, joint statements from the governments of Québec, California and Washington have affirmed their commitment to explore potential linkage.

Compliance

Compliance mechanism

Covered entities must surrender one allowance per tCO_2e emitted for all their verified and reported emissions.

Compliance Period

Three years

The Québec C&T System is structured around three-year compliance periods, except for the first period (see 'ETS Size & Phases' section). A cap trajectory until 2030 has been set (see 'Cap' section). Allowances must be surrendered by November following the end of a compliance period.

Monitoring, Reporting, Verification (MRV)

REPORTING FREQUENCY: Annual

VERIFICATION: All covered entities in the program require independent third-party verification of emissions reports.

FRAMEWORK: Regulation on the mandatory reporting of certain emissions of contaminants into the atmosphere is outlined in the "Environment Quality Act".

Penalties and enforcement

A covered entity that fails to cover its GHG emissions with enough allowances by the compliance deadline must remit each missing allowance plus three additional allowances for each allowance it failed to surrender.

For non-compliance, entities can be fined CAD 3,000 to CAD 600,000 (USD 2,191 to USD 438,161) for each tCO2e not covered.

In addition, the Minister of the Environment, the Fight against Climate Change, Wildlife and Parks may suspend emission unit allocation to any non-compliant emitter.

Market Regulation

Market Stability Provisions

AUCTION RESERVE PRICE
Instrument type: Price-based instrument

Functioning: The auction reserve price is set at CAD 24.73 and USD 25.87 per allowance in 2025.

The auction reserve price in each auction is determined using the minimum prices set and released annually by Québec in CAD and California in USD in accordance with Article 49 of the "Regulation respecting a cap-and-trade system for greenhouse gas emission allowances" (Québec Regulation) and Section 95911 of California's cap-and-trade regulation. To manage multiple currencies, an Auction Exchange Rate is determined prior to each joint auction. The Auction Reserve Price in each auction is then determined as the higher of the Annual Auction Reserve Prices established in USD and CAD after applying the established Auction Exchange Rate (USD to CAD FX Rate). The auction reserve price increases annually by 5% plus inflation, as measured by the Consumer Price Index.

RESERVE ACCOUNT
Instrument type: Price-based instrument
Functioning: Québec maintains an emission unit reserve to sell to entities that do not have enough allowances to cover their obligations ("sales by mutual agreement"). The reserve is filled with set portions of the annual caps: 1% for 2013 to 2014; 4% for 2015 to 2017; 7% for 2018 to 2020, and 4% for 2021 to 2030.

Sales by mutual agreement are held a maximum of four times per year at three price categories that contain an equal share of emission units on offer. Only covered entities in Québec are eligible to purchase units from the reserve, and only if they do not have enough compliance instruments that can be used to cover emissions for the current period in their general account. To date, no sales by mutual agreement have been held.

In December 2020, Québec amended the prices of its three tiers to align more closely with California. For 2025, the prices of the three tiers are CAD 58.96 (USD 43.06), CAD 75.75 (USD 55.32), and CAD 92.57 (USD97.60). However, if partner entities have set higher prices per unit for a corresponding category, Québec units would be sold at the highest of the prices of both jurisdictions according to the daily average exchange rate of the Bank of Canada published on its website on the day preceding the sale. Unlike California, the highest tier will not act as a price ceiling for Québec. Just like auction reserve prices, reserve prices increase annually by 5% plus inflation.

Market Design

MARKET PARTICIPATION: Compliance entities, including entities that opt into the system ("emitters"). Non-compliance entities with an establishment in Canada and individuals domiciled in Canada ("participants") can participate through:

- purchasing, holding, selling, or retiring compliance instruments;
- operating an offset project registered with the Ministry; or
- providing clearing services as qualified entities.

Emitters and participants must have an account in the Compliance Instrument Tracking System Service (CITSS). Additional eligibility criteria apply.

MARKET TYPES:

Primary: The majority of allowances are distributed via auctioning. Four auctions of emission units, held jointly with California, take place each year. Participants must have an approved account in CITSS and apply to take part in auctions at least 30 days in advance. Auctions are administered by the Western Climate Initiative, Inc.

Secondary: Exchange trading of allowances (emission units and offsets) issued by both California and Québec takes place on platforms such as the Intercontinental Exchange (ICE), the CME group or the Nodal Exchange. Allowances are traded through futures and options contracts. Any company qualified to access these platforms can trade directly or through a future commission merchant. Companies can also trade directly over the counter. All transactions must be notified to the Ministry, with information such as the quantity and vintage of allowances and the settlement price. The only exception to the notification requirement relates to transactions between related entities and bundled transfers as specified in Section 25 of the Regulation.

LEGAL STATUS OF ALLOWANCES: Under the Environmental Quality Act, emission allowances include emission units, offset credits, early reduction credits and any other emission allowance determined by regulation of the Government, each being equal to 1 tCO_2e. They can be used to comply with the pertinent regulation. They do not constitute financial instruments in Québec.

Other Information

Institutions involved

Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (Ministry of the Environment, the Fight against Climate Change, Wildlife and Parks): Overall responsibility for implementing the Cap-and-Trade System in Québec.

Western Climate Initiative, Inc.: Non-profit organization that provides cost-effective administrative and technical solutions for supporting the coordinated development and implementation of participating jurisdictions' GHG emissions trading programs, such as administering auctions and maintaining the system registry.

Regulatory Framework

Regulation respecting a cap-and-trade system for greenhouse gas emission allowances

Regulation respecting mandatory reporting of certain emissions of contaminants into the atmosphere

Environment Quality Act

Evaluation / ETS review

The regulation is adjusted almost annually to implement changes and, where necessary, maintain harmonization with linked jurisdictions.

Disclaimer

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