

# Canada - Québec Cap-and-Trade System

## General Information

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### ETS Description

Québec's Cap-and-Trade System started operation in 2013 and covers ~80% of Québec's GHG emissions.

The system covers fuel combustion emissions in the power, buildings, transport, and industrial sectors, as well as industrial process emissions. Most allowances 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 allowance reserve account to adjust levels of free allocation and sell to entities that do not have enough allowances to cover their obligations.

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

### ETS Status

in force

### Jurisdictions

Québec

### Year in Review

In September, Québec adopted a new approach for free allocation for the 2024-2030 period, as committed in the "2030 Plan for a Green Economy" published in 2020.

The new approach will see a decrease in the level of free allocation, based on three additional factors: the cap decline factor of 2.34%; an extra expected effort based on the carbon leakage risk and the proportion of fixed process emissions; and a trajectory modulation factor, which will reduce the rate of reduction in the initial years and increase it in the later ones. A portion of the allowances resulting from the reduction in the level of free allocation will be consigned for auction on behalf of businesses. The proceeds from the sale of these allowances will be set aside on behalf of each business to finance projects related to the climate transition. It is expected that the new approach will see a reduction of 2.9 MtCO<sub>2e</sub> free allowances between 2024-2030.

In June, California and Québec presented a mechanism to account for the flow of compliance instruments between the linked systems. This mechanism was developed pursuant to Article 8 of their market linkage agreement. In December, they published the Report on the Net Flow of Compliance Instruments between Québec and California for the period 2013-2020 as calculated using this mechanism. At this time, Québec also published its 2020 Target Achievement Report. GHG emissions in Québec were 13.2% below 1990 levels in 2020. For 2020, Québec was a net buyer of 11.4 Mt CO<sub>2e</sub> on the Québec-California carbon market, which represents 13.4% of the 1990 emissions level. Québec's net GHG emissions balance in 2020 was therefore 26.6% below the 1990 level.

### Sectoral coverage

Transport  
Buildings  
Industry  
Power

## Emissions & Targets

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### Overall GHG Emissions excl. LULUCF (MtCO<sub>2</sub>e)

74.1

### GHG reduction targets

**BY 2030:** 37.5% reduction from 1990 GHG levels (Decree 1018-2015)

**BY 2050:** Carbon neutrality (2030 Plan for a Green Economy)

### Current Allowance Price (per t/CO<sub>2</sub>e)

CAD 36.29 (USD 28.08) (average auction settlement price in 2022, includes settlement prices of both current and future vintage allowances, updated prices available [here](#))

## Size & Phases

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### Covered emissions (2020)

77.00%

### Verified ETS Emissions

56.10MtCO<sub>2</sub>e

### GHGs covered

CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, HFCs, PFCs, NF<sub>3</sub>

### Phases

**FIRST COMPLIANCE PERIOD:** 2 years (2013-2014)

**SECOND COMPLIANCE PERIOD:** 3 years (2015-2017)

**THIRD COMPLIANCE PERIOD:** 3 years (2018-2020)

**FOURTH COMPLIANCE PERIOD:** 3 years (2021-2023)

### Cap

**FIRST COMPLIANCE PERIOD (2013-2014):** The system started in 2013 with a cap of 23.2 MtCO<sub>2</sub>e.

**SECOND COMPLIANCE PERIOD (2015-2017):** With the program expanding to include fuel distribution, the cap rose to 65.3 MtCO<sub>2</sub>e in 2015. The cap declined to 61 MtCO<sub>2</sub>e in 2017, at an average rate of 3.2% per year.

**THIRD COMPLIANCE PERIOD (2018-2020):** The cap started at 59.0 MtCO<sub>2</sub>e and declined at an average annual rate of 3.5% to 54.7 MtCO<sub>2</sub>e in 2020.

**FOURTH COMPLIANCE PERIOD (2021-2023) AND BEYOND:** After a slight nominal increase in the cap in 2021, to 55.3 MtCO<sub>2</sub>e, 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<sub>2</sub>e in 2030.

### Sectors and thresholds

**FIRST COMPLIANCE PERIOD (2013-2014):** Producers and importers of electricity and industrial facilities.

**SECOND COMPLIANCE PERIOD AND BEYOND:** Sectors from Phase 1 as well as the distribution and importation of fuels used in the transport and buildings sectors and in small- and medium-sized businesses.

**INCLUSION THRESHOLDS:** Emissions equal to or greater than 25,000 tCO<sub>2</sub>e per year. Fuel distributors that distribute 200L or more of fuel are also subject to inclusion.

**VOLUNTARY EMITTERS (OPT-IN COVERED ENTITIES):** Since 2019, emitters from capped sectors that have reported emissions equal to or greater than 10,000 tCO<sub>2</sub>e per year but less than 25,000 tCO<sub>2</sub>e per year may voluntarily register with the cap-and-trade system as a covered entity. If their production activity is eligible, they may receive free allocation.

#### **Point of regulation**

Upstream (buildings, transport); point source (industry, in-province power); imported electricity at the point of first delivery onto Québec's electricity grid.

#### **Number of entities**

127 covered entities, representing 165 facilities (82 industrial facilities, 45 fuel distributors and 38 opt-in emitters) (2021)

\*127 covered entities, but some entities operate more than one facility. These entities represent 165 emitting facilities.

## **Allowance Allocation & Revenue**

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### **Allowance allocation**

Allowances, referred to as “emission units” in Québec's cap-and-trade regulations, are distributed via auction and free allocation.

**FREE ALLOCATION:** EITE sectors receive a portion of their allowances for free because they are considered vulnerable to carbon leakage. Eligible sectors include 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 does not allow price adjustments to take into account a carbon cost are also eligible to receive free allowances.

In most cases, the volume of free allocation is determined by recent 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. If insufficient historical data is available, an energy-based methodology is used to determine the amount of free allocation issued.

**FIRST TO THIRD COMPLIANCE PERIOD (2013-2020):** Until 2020, the assistance factors for all EITE sectors were set at 100%.

**FOURTH COMPLIANCE PERIOD (2021-2023):** For the 2021-2023 period, assistance factors for industrial activities are determined based on trade exposure and emissions intensity. These metrics have been used to group 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% applies for steam production for industrial purposes and off-site electricity producers with the fixed-price sales contracts signed before 2008.

**BEYOND THE FOURTH COMPLIANCE PERIOD (2024-2030):** New rules adopted in September 2022 will see a gradual decrease in the level of free allocation from 2024. The rate of reduction will be determined by three additional parameters: the cap decline factor of 2.34%; an extra expected effort based on the carbon leakage risk and the proportion of fixed process emissions; and a modulation adjustment 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 2024-2030 period. A portion of the allowances resulting from the reduction in the level of free allocation will be consigned for auction on behalf of businesses. The proceeds from the auctioning of the consigned allowances will be set aside on behalf of each business to finance projects related to the climate transition. Average actual emissions from 2017-2019 will be progressively phased in to replace the existing intensity values based on 2007-2010 emissions.

**AUCTIONING:** Electricity and fuel distributors must buy 100% of their allowances, with some narrow exceptions (e.g., on contracts prior to 2008 that have not been renewed or extended). Allowances are auctioned quarterly. Allowances that remain unsold after an auction may be offered for sale again when the price at two consecutive auctions settles above the minimum price.

In 2021, ~65% of allowances were allocated by auction or directed to reserves, and ~35% of allowances were allocated for free.

### **Total Revenue**

Since the beginning of the program: CAD 7 billion (USD 5.38 billion)

Collected in 2022: CAD 1.34 billion (USD 1.03 billion)

2022

### **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 include energy efficiency, electrification, and public transport.

Since the beginning of the program, more than CAD 7 billion (USD 5.38 billion) has been raised.

## **Flexibility & Linking**

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### **Offsets and credits**

**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:

- reclamation and destruction of methane from landfill sites;
- destruction of halocarbons and
- Carbon sequestration through afforestation or reforestation on private lands.

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

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

Technical work is currently underway to develop a draft regulation for the anaerobic digestion of manure. Other types of projects under consideration include fuel substitution in the marine transport sector, conversion of refrigeration systems, improvements in the application 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 credits is retired from the government's environmental integrity account. This account is funded by the automatic withholding of 3% of issued offset credits from all offset projects.

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

### **Banking and borrowing**

Banking is allowed, but the emitter is subject to a general holding limit on allowances to which all entities in the system are held. The holding limit declines based on the year's annual allowance budget.

While borrowing is not allowed, some allowances from future vintages are offered at each auction and may be traded but not used for compliance until the compliance date for the 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.

## **Compliance**

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### **Monitoring, Reporting, Verification (MRV)**

**REPORTING FREQUENCY:** Annually.

**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”.

### **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.

The person with legal responsibility for that entity would also be committing an infraction, subject to financial penalties, for each compliance instrument not surrendered as part of the compliance obligation.

For non-compliance, entities can be fined CAD 3,000-500,000 (USD 2,308-384,615) and spend up to 18 months in jail in the case of a natural person, and a fine of CAD 10,000-3,000,000 (USD 7,692-2,307,692) in the case of a legal person.

Fines are doubled in the event of a second offence. In addition, the Minister of the Environment and the Fight against Climate Change may suspend allowance allocation to any non-compliant emitter.

### **Compliance Period**

The Québec Cap-and-Trade 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 1 November following the end of a compliance period.

## **Market Regulation**

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### **Market Stability Provisions**

**AUCTION RESERVE PRICE:** The auction reserve price sets the minimum price at which allowances are available at auction. It is equivalent to the annual minimum price of the previous year, increased by 5% and an Indexation rate based on the Price Index Consumption (CPI) as established by the “Financial Administration Act”. For 2023, it is set at CAD 20.83 (USD 16.02) for Québec and USD 22.21 for California. For joint auctions with California, the highest value in USD between Québec’s and California’s auction reserve prices, based on the exchange rate of the Bank of Canada the day prior to the auction, will be the reserve price for that sale.

**RESERVE ACCOUNT:** Québec maintains an allowance 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 cap (4% for 2021 and beyond).

Sales by mutual agreement are held a maximum of four times per year at three price categories that contain an equal share of allowances on offer. Only covered entities in Québec are eligible to purchase allowances 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 2023, the prices of the three tiers are CAD 49.66 (USD 38.20), CAD 63.81 (USD 49.08), and CAD 77.97 (USD 59.98). However, if partner entities have set higher prices per allowance for a corresponding category, Québec allowances 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, 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 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 and offsets 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.

**LEGAL STATUS OF ALLOWANCES:** Under the “Environmental Quality Act”, allowances are authorizations to emit up to one tCO<sub>2e</sub> to comply with the pertinent regulation. They do not constitute financial instruments in Québec.

## Other Information

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### 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 program 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](#)

[Amendments to the cap-and-trade regulations](#)

[Environment Quality Act](#)

### Evaluation / ETS review

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

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