

China - Chongqing pilot ETS

General Information

ETS Description

Chongqing launched its pilot ETS in June 2014. Among the eight Chinese pilots, the Chongqing ETS is the only one that covers non-CO₂ gases.

The Chongqing Pilot ETS covers 334 entities in the electrolytic aluminum, ferroalloys, calcium carbide, cement, caustic soda, iron and steel, and other industrial sectors. From 2014 to 2020, the Chongqing Pilot ETS operated with an absolute cap with an annual reduction rate applied to the base-year emissions level (i.e., the sum of each covered entity's highest annual emissions from 2008 to 2012). Until 2015*, the annual reduction rate was 4.13% and thereafter 4.85%. Auctioning was introduced in 2021 to provide covered entities with additional supply to meet their compliance demand. Covered entities must surrender allowances for all their covered emissions, and allocation is based on auctions or free allocation.

The Chongqing Ecology and Environment Bureau (EEB) revised the ETS management rules in 2022, including general management rules and specific rules for MRV, managing allowances, allocation, and registry. Since the revision, there has been no absolute cap for the system. Output-based methods are now applied in several industrial sectors.

In the short term, the Chongqing Pilot ETS operates in parallel with the national Chinese carbon market. When the national ETS expands to new sectors, the covered entities in these sectors will be integrated into the national ETS.

* Chongqing ETS launched in 2014, covering the emissions from 2013 in the first compliance period.

ETS Status

in force

Jurisdictions

Chongqing

Year in Review

In September 2024, Chongqing EEB published the allocation plan for the compliance year 2023. In this plan, it introduced a “synergies mechanism for reducing pollution and carbon emissions,” rewarding entities that achieve emission reduction and air pollution control with a 0.3 to 0.5% increase in their allowance allocation.

In addition, Chongqing became the fifth city in China to implement the “electricity and carbon synergy” policy and allowed entities to offset up to 8% of the shortfall in allowance with eligible non-fossil energy purchases outside of the city (see ‘Offset Credits’ section).

Sectoral coverage

Industry

Revenue usage

General budget, including debt reduction

Emissions & Targets

Overall GHG Emissions excl. LULUCF (MtCO₂e)

188.1 MtCO₂ (2020)*

* No data is publicly available for recent years. Data here is provided by local experts.

GHG reduction targets

By 2030: Peak emissions (Chongqing Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy)

By 2060: Climate neutrality (Chongqing Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy)

Current Allowance Price (per t/CO₂e)

Average primary market data: CNY 44.8 (USD 6.22)

Average secondary market price: CNY 40.05 (USD 5.56) (updated prices available [here](#))

Size & Phases

Covered emissions (2020)

40.00%

GHGs covered

CO₂, CH₄, N₂O, HFCs, PFCs, SF₆

Phases

2013 and ongoing

Cap or total emissions limit

Currently, the total emissions limit under the Chongqing Pilot ETS is the sum of the bottom-up output-based levels for all individual covered entities. Previously, the system used absolute caps that declined annually at a pre-determined rate. The cap was set in 2013 at 125 MtCO₂e. Until 2015, the annual reduction rate of the cap was 4.13%. From 2016 onwards, it was revised to 4.85%. Caps for the following years were:

2018 and 2019: 97 MtCO₂e

2020: 78.4 MtCO₂e

The absolute caps were replaced by intensity-based caps in 2021.

Sectors and thresholds

Unlike most other Chinese pilots, Chongqing does not pre-define which sectors are covered under its ETS; rather, it sets a threshold which applies to all entities in the industrial sectors, including production of electrolytic aluminum, ferroalloys, calcium carbide, cement, caustic soda, and iron and steel, and other industrial sectors. Entities in these sectors with emissions above the threshold are covered by the ETS.

The power sector was covered until 2019, after which it transitioned to the national ETS.

INCLUSION THRESHOLDS:

Until 2020: Emissions of 26,000 tCO₂e per year or energy consumption of 10,000 tonnes of coal equivalent (tce) per year.

From 2021 to 2023: Chongqing lowered the threshold to 13,000 tCO₂e per year or energy consumption of 5,000 tce per year.

Point of regulation

Point source (power and industry); downstream (indirect emissions from electricity and heat consumption).

Type of entities

Companies

Number of entities

334 (2023)

Allowance Allocation & Revenue

Allowance allocation

FREE ALLOCATION: From 2014 to 2020, Chongqing employed free allocation through grandparenting based on historical emissions: the highest number in the period spanning 2008 to 2012. Covered entities submitted their allowance allocation demand on a yearly basis, forming the basis of their free allocation. This value was adjusted if it exceeded the highest historical annual emissions (from 2008 to 2012) of the respective entities, by using the average of the two numbers. In addition, if the sum of the allocation for all the entities exceeded the top-down cap (see ‘Cap or Total Emissions Limit’ section), a reduction factor was applied to all the covered entities.

In the 2021 to 2022 allocation plan, the Chongqing EEB introduced both a historical intensity method and benchmark method for allocation. There were four methods in the plan. Benchmarks were used in cement clinker and electrolytic aluminum production. The historical intensity was used for other processes in the cement and aluminum sector. Grandparenting is used in all other sectors. For waste-to-power plants, shell gas production, new entrants, non-CO₂ emissions in all sectors, allocation was equal to the emissions.

Chongqing used free allocation in 2021, 2022 and 2023. In 2024, in the absence of the final allocation plan, the government pre-allocated allowances to covered entities, which accounted for 70% of the region’s emissions of 2023. Covered entities from cement, iron and steel and aluminum sectors are to be included under the national ETS from 2024, and their allowances under the regional system will not be pre-allocated.

Covered entities that demonstrate strong efforts in reducing both air pollution and carbon emissions and are not subject to environmental penalties or violations during 2023 and 2024, and will receive an additional 0.3 to 0.5 % of their 2023 allowance.

Covered entities that achieve a reduction in carbon emissions intensity or total carbon emissions in 2023 compared to 2022 and are graded A for air pollution control, will receive an additional 0.5% of their 2023 allowance (maximum 2,000 allowances per company). Those that achieve emission reductions and are graded B for air pollution control, will receive an additional 0.3% of their 2023 allowance.

Covered entities that met the national benchmark for product energy efficiency in 2023 will also be granted an extra 0.3% of their product allowance (maximum 500 allowances per company).

AUCTIONING: Auctioning was introduced in 2021. A small share of the annual cap could be auctioned. The main purpose of auctions is to provide compliance entities with additional supply to meet their compliance demand. To date, auctions have been held on an ad hoc basis. Three auctions have been held, in November and December 2021, and February 2022.

Total Revenue

CNY 358.63 million (USD 49.83 million) since beginning of program

CNY 22.79 million (USD 3.17 million) in 2024

2024

Use of Revenues

Revenues are attributed to the city treasury.

Flexibility & Linking

Offset credits

The use of offset credits is allowed. Since September 2021, a local carbon offset program has been also operationalized which generates Chongqing Certified Emission Reduction (CQCER) credits for both compliance and voluntary use.

QUANTITATIVE LIMITS: Starting from the compliance year 2023, only CQCERs are allowed for up to 5% of an entity's compliance obligation.

QUALITATIVE LIMITS: For compliance year 2023, Chongqing also allows entities to offset up to 8% of the shortfall in allowance with eligible non-fossil energy purchases outside of the city.

Banking and borrowing

Banking is allowed. Borrowing was not allowed from 2014 to 2020. In the 2021 to 2022 and 2023 allocation plan, borrowing was allowed. Companies with a shortfall of 10% or more could apply to borrow from a pre-allocated allocation for 2024.

Links with other Systems

The Chongqing ETS is not linked with any other system.

Other carbon pricing instruments in the jurisdiction

ETS: Chinese national ETS

Domestic crediting mechanisms: Chongqing Certified Emission Reduction (CQCER)

Domestic crediting mechanism (national): China Certified Emissions Reduction (CCER)

Compliance

Compliance mechanism

Covered entities must surrender one allowance per tCO₂e emitted for all their covered emissions, and allocation is based on auctions or free allocation.

Compliance Period

One calendar year. The exact date for the covered entities to surrender allowances is set by the government on an annual basis and varies across years.

Monitoring, Reporting, Verification (MRV)

MONITORING: Covered entities are required to set up monitor plans and monitor their emission based on these plans.

REPORTING: Reporting of GHG emissions must be complete by the end of April for the previous year.

VERIFICATION: Third-party verification is required.

FRAMEWORK: The competent authority has published a guidance document for monitoring and reporting that includes methods for different emissions sources, including combustion, industrial processes, and electricity consumption.

Penalties and enforcement

There are no financial penalties for non-compliance. Non-financial penalties may include public reporting, and a record entered in the Chongqing City Enterprise environmental credit system.

According to the 2021 to 2022 allocation plan, compliance obligations are limited. Covered entities with free allowance that account for less than 80% of their verified emissions will have their allocation adjusted upwards to 80%, meaning a maximum 20% shortfall.

Market Regulation

Market Stability Provisions

RESERVE

Instrument type: Price-based instrument **Functioning:** 5% of allowances from the total emissions limit may be set aside for market stability. The Chongqing EEB can organize irregular auctions according to market demand, no fixed triggers are envisaged.

EXCHANGE

Instrument type: Price-based instrument

Functioning: The Chongqing Asset and Equity Exchange implements a system of limits on price increases and decreases for trading over the exchange. For listed trading, this is 10% above or below the reference price (the weighted average price of all transactions on the previous trading day). For block trading (with a minimum trading volume of 10,000 tonnes), this is 30% above or below the reference price. Only transactions within this price range can be successfully completed on the exchange.

Market Design

MARKET PARTICIPATION: Compliance and non-compliance entities and individuals that meet the requirements of the carbon emission trading rules.

MARKET TYPES:

Primary: Allowances thus far have largely been allocated for free, with auctioning introduced in 2021 without a fixed schedule.

Secondary: There is a spot market at Chongqing Carbon Emissions Trading Center for trading of allowances, CCERs and CQCERs. Due to the financial market-related regulations in China, no forward markets or derivatives are allowed yet.

LEGAL STATUS OF ALLOWANCES: Allowances are not considered financial instruments.

Other Information

Institutions involved

Chongqing Ecology and Environment Bureau: Responsible for establishing the Chongqing ETS after governmental restructure in 2020.

Chongqing Carbon Emissions Trading Center: Responsible for operating the trading platform, which belongs to the **Chongqing Asset and Equity Exchange**.

Chongqing Resource and Environment Trading Center: Responsible for the registry.

Regulatory Framework

[Management rules of Emissions Trading in Chongqing \(2023\)](#)

[Chongqing Working Guidance For Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy \(2021\)](#)

[Management Rules of Allowance in Chongqing \(2023\)](#)

[Management Rules of Registry in Chongqing \(draft for comments\)\(2022\)](#)

[Measures for Management of Verification agency in Chongqing \(draft for comments\) \(2022\)](#)

[MRV Guidelines for Chongqing ETS \(draft for comments\) \(2022\)](#)

[Chongqing Allowance Allocation Plan for 2023 \(2024\)](#)

Evaluation / ETS review

No public information is available about the evaluation or review system. However, the Chongqing EEB has been revising the major managements rules since 2021.

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