

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 299 entities in the 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 [1], 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 China's National Carbon Market. When the National Carbon Market expands to new sectors, the covered entities in these sectors will be integrated into it.

[1] 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 December 2024, all covered entities surrendered their compliance units for compliance year 2023.

In March 2025, Chongqing EEB updated 14 MRV guidelines for the covered entities in Chongqing ETS.

In September 2025, Chongqing EEB published the allocation plan for the compliance year 2024. It introduced two new benchmarks, policy incentives and banking requirements (See 'Allowance Allocation' and 'Banking and Borrowing' section). Covered entities in steel, cement, and the aluminium smelting sectors were integrated into the National Carbon Market since compliance year 2024.

Sectoral coverage

Mining and extractives

Waste

Industry

Revenue usage

General budget, including debt reduction

Emissions & Targets

Overall GHG Emissions excl. LULUCF (MtCO₂e)

345.3 MtCO₂e (2023)^[1]

[1] 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 secondary market price: CNY 35.86 (USD 4.99)

Size & Phases

Covered emissions (2020)

52.50%

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: 97 MtCO₂e

2019: 92 MtCO₂e

2020: 78.4 MtCO₂e

The absolute caps were replaced by intensity-based caps in 2021. Chongqing EEB didn't publish the cap data from 2021 to 2023.

2024: 157 Mt CO₂e

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 was integrated into the National Carbon Market. Steel, cement, and the aluminum smelting sectors were integrated into the National Carbon Market in 2024.

INCLUSION THRESHOLDS:

Until 2020: Companies with emissions of 20,000 tCO₂e per year.

Since 2021: Chongqing lowered the threshold to include companies with emissions equal to or above 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

296 (2024)

Allowance Allocation & Revenue

Allowance allocation

Allowances are distributed for free, using benchmarking or grandparenting. Competent authorities update the allocation plan every year and the following information pertains to the allocation plan for compliance year 2024.

FREE ALLOCATION:

Benchmarking: Free allocation based on sector-specific benchmarks is used for ammonia production (natural gas-based), flat glass, and electric arc furnace (EAF) steelmaking.

Grandparenting: Grandparenting based on historical emissions intensity is used for some industrial sectors with less than two products and comparable product carbon intensities.

Grandparenting based on historical emissions is used for sectors with complex products, generally based on the previous three years' data.

The waste incineration and shale gas production sectors will receive the same amount of allowance as their actual emissions. The same approach also applies to special cases, such as new entrants or companies with more than 50% changes in production.

In addition to the basic allocation method, the Chongqing ETS has introduced adjustment coefficients to reward covered entities that demonstrate strong decarbonization effort and were not subject to environmental penalties from 2019 to 2024. Such entities receive an additional 0.5% to 1% of their 2024 allocation, up to 5,000 allowances. Covered entities that met the national benchmark for product energy efficiency in 2024 or build zero carbon emission industrial park will also be granted an extra 1% of their 2024 product allowance.

Ex-post allocation adjustments, e.g., based on production data, are applied for those with historical intensity or benchmarking allocations. For the compliance year 2024, these covered entities received pre-allocated allowance equal to 70% of their 2023 emissions. Ahead of the compliance deadline in 2025, the competent authority adjusted the allowance based on the verified production output in 2024.

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. Four auctions have been held, in November and December 2021, February 2022, and March 2024.

Chongqing uses a capping mechanism for compliance obligations. If the difference between an entity's annual verified emissions and the allocation exceeds either 20% of the allocation or 100,000 tCO₂ (above or below the allocation), the entity's total emissions limit will be adjusted accordingly to balance out the surplus or deficit.

Total Revenue

CNY 354.14 million (USD 49.3 million) since beginning of program
2025

Use of Revenues

- General budget, including debt reduction
- 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 operating, generating Chongqing Certified Emission Reduction (CQCER) credits for both compliance and voluntary use.

QUANTITATIVE LIMITS: Both China Certified Emissions Reductions (CCERs) and CQCERs are allowed for up to 5% of an entity's compliance obligation.

QUALITATIVE LIMITS: For compliance year 2024, Chongqing also allows entities to offset up to 8% of the shortfall in allowance with eligible green electricity purchases to cover up to 2,000 tonnes of their emissions

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. In the 2024 allocation plan, companies with a shortfall of 5% or more could apply to borrow from a pre-allocated allocation for 2025.

Any remaining free allowances held by covered entities integrated into the National Carbon Market must be cancelled within three years.

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 compliance unit (allowance, CCER, or CQCER) 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)

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.

MONITORING: Covered entities are required to set up and follow monitoring plans

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

VERIFICATION: Third-party verification is required.

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.

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 CQCRs. 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 restructuring in 2019.

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

Chongqing Climate Change Response and Development Center (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 \(2022\)](#)

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

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

[Chongqing Allowance Allocation Plan for 2024 \(2025\)](#)

[Management Rules of Verification agency in Chongqing \(2025\)](#)

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

Disclaimer

Copyright © 2022 by International Carbon Action Partnership (ICAP). All rights reserved. The content provided by the ICAP ETS map is protected by copyright. You are authorized to view, download, print and distribute the copyrighted content from this website subject to the following condition: Any reproduction, in full or in part, must credit the International Carbon Action Partnership (ICAP) must include a copyright notice. If you have any questions please contact [infoicapcarbonaction \[dot\] com](mailto:infoicapcarbonaction@icapcarbonaction.com) ([info\[at\]icapcarbonaction\[dot\]com](mailto:info@icapcarbonaction.com)).

In line with ICAP's mandate, the ICAP ETS map exclusively covers cap-and-trade systems for greenhouse gas emissions. Information displayed on the map is regularly updated by ICAP Secretariat staff based on official and public information as far as possible and subject to annual peer review by government representatives from the covered systems. Although the information contained in the map is assembled with utmost care, ICAP cannot be held liable for the timeliness, correctness and completeness of the information provided. Please refer to the imprint on the website of the International Carbon Action Partnership regarding links to external websites, liability and privacy policy.