China - Guangdong pilot ETS

General Information

**Summary**

**Status:** ETS in force

**Jurisdictions:** Guangdong

The Guangdong Pilot ETS was launched in December 2013 and is the largest of the Chinese ETS pilots. Following a scope expansion in 2016 the ETS now covers the power, cement, steel, petrochemical, papermaking, and domestic aviation sectors, accounting for more than 60% of the province’s emissions.

The Guangdong Pilot ETS has one of the most active markets among Chinese pilots with the largest market share. Unlike other pilots, Guangdong auctions a small share of allowances.* The auctioning has been moved from mandatory (2013) to voluntary participation (since 2014) and has been held ad hoc (rather than quarterly) since 2017. Guangdong and Shenzhen are the only two Chinese pilots open to foreign investors. In November 2016, Guangdong increased the maximum position of institutional and individual investors from three million to eight million allowances. Guangdong also allows unincorporated organizations, such as funds and trusts, to trade in its carbon market. As of 2019, it had 87 institutional investors.

*It was mandatory for enterprises to purchase 3% of their allowances from auctions in 2013 before receiving the remainder for free. Since 2014, the non-free allocation rate has been raised to 5% for the power sector and 3% for the remaining sectors.

**Year in Review**

The 2019 allocation plan was released by the Department of Ecology and Environment of Guangdong in November. The plan includes revisions to the allocation methodology, including expansion of benchmarking to co-generation as well as refinements to the benchmarks for the iron and steel sector. In addition, the number of allowances available for auction increased from two million tonnes in 2018 to five million tonnes in 2019.

In order to further standardize the province’s own offsetting program, Pu Hui Certified Emission Reductions (PHCER), the Guangdong Province PHCER Trading Rules were revised and issued in June 2020, setting new rules on the quantity and price of certain transaction types.

Guangdong also introduced a new method of allowance transaction in June 2020 to improve market efficiency in the province: covered entities can now entrust the Guangzhou Carbon Emission Trading Center to organize auctions of any planned sale of allowances rather than pursue bilateral trading, determining the minimum price, timing of sale, and other transaction rules in conjunction with the Center.

**Overall GHG emissions (excluding LULUCF)**

| Emissions: 810.5 MtCO₂e (2012) |

**Overall GHG emissions by sector**

No information available yet.
Overall GHG reduction target  | **BY 2020:** 20.5% reduction in carbon intensity compared to 2015 levels
---|---
Carbon Price  | *Current Allowance Price (per t/CO2e):* CNY 23.20 (USD 3.36) (updated prices available here)

### ETS Size

| Emissions covered by the ETS | 0.60 |
| GHG covered | CO2 |
| Sectors covered and thresholds | Power, iron and steel, cement, papermaking, aviation, and petrochemicals. **INCLUSION THRESHOLDS:** 20,000 tCO2/year or energy consumption 10,000 tce/year. |
| Point of regulation | Downstream. Both direct and indirect emissions are covered.* |
| Number of liable entities | 242 existing entities (2019)  
37 new entrant entities (2019)  
No information available yet. |
| Cap | 465 MtCO2e (2019), among which 27 MtCO2e are kept as government reserves for new entrants and market stability. |

### Phases & Allocation

<table>
<thead>
<tr>
<th>Trading period</th>
<th>2013-2019*</th>
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<tr>
<td>*In the short term, the existing Chinese regional carbon markets are expected to operate in parallel with the national Chinese carbon market. Over the medium to long term, they are expected to be integrated into the national market once it is fully operational.</td>
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**Allocation**  
- **Free Allocation:** Mainly free allocation based on grandparenting, historical intensity, or benchmarking. Benchmarking is applied to coal- and gas-fired electricity generators (including heating, as well as combined heat and power), as well as to some industrial processes in the aviation, cement, paper, and steel sectors. Ex post adjustments based on real production data of the respective compliance year are also applied.  
- **Auctioning:** Guangdong auctions a small share of allowances as a form of allowance allocation. During the first compliance year (2013), entities were required to purchase allowances in auctions in order to become eligible to receive their freely allocated allowances. This requirement was terminated in 2014. Since 2014, free allocation percentages remain the same, i.e., 95% for the power sector and 97% for the remaining sectors. In 2019, the government auction allowance was adjusted from two million allowances in previous years to five million allowances in 2019. Quarterly auctions were held until 2016, while in 2017 and 2018 auctions were ad hoc. No auction took place in 2018 or 2019.
Flexibility

Banking and borrowing
Banking is allowed. Borrowing is not allowed.

Offsets and credits
**QUANTITATIVE LIMIT:** Chinese Carbon offset credits (CCERs) are allowed. As a mechanism that encourages the public to reduce carbon emissions, Pu Hui Certified Emission Reductions (PHCER) are also allowed during 2017 and 2018. In 2018, entities are allowed to make use of 1.5 million offsets (CCER and PHCER) towards compliance obligations. The number of 2019 has not yet been announced. In order to further standardize PHCER, the Guangdong Province PHCER Trading Rules were revised and issued in June 2020, setting new rules on the quantity and price of certain transaction types.

**QUALITATIVE LIMIT:** Of the annual compliance obligation met by offsets, at least half must be from CO2 or CH4 reduction projects. At least 70% of offsets need to come from within Guangdong province. Pre-CDM credits are not eligible. Credits from hydro and from most fossil fuel projects are also not eligible.

Market Stability Provisions
Reserves: The Guangdong province set aside 5% of all allowances for government reserves for new entrants and market stability. The specific rules for market stability are provided by its Trial Measures for ETS.

**Auction Floor Price:** Auctions under the Guangdong Pilot ETS are subject to an auction floor price. Initially in 2013, it was set at CNY 60 (USD 8.54), and then it was lowered to CNY 25 (USD 3.56) and increased to CNY 40 (USD 5.69) in steps of CNY 5 (USD 0.71) with each quarterly auction. In 2015, the floor price was set at 80% of the weighted average price for allowances over the previous three months. In 2016, there was no restriction on the declared price, but a so-called policy reserve price was set as an effective price floor. In 2017, the policy reserve price was set at 100% of the weighted average price for allowances over the previous three months. The policy reserve prices for the four auctions for the 2016 compliance period are as follows: (21 June 2016–20 June 2017) were CNY 9.37 (USD 1.33), CNY 11.27 (USD 1.60), CNY 16.09 (USD 2.29), and CNY 15.15 (USD 2.16).

**Offset Auctions:** Guangdong also introduced auctioning for PHCERs with an auction reserve price set by the Emissions Exchange Guangzhou on behalf of offset project developers. In the latest auction (28 November 2019), the floor reserve price for one offset project was set as CNY 19.61/tonne (USD 2.79) (80% of the weighted average price for allowances over the previous three months). For the other two, it was set as CNY 24.51/tonne (USD 3.49) (100% of the weighted average price for allowances over the previous three months).

Compliance

**Compliance Period**
One year

**Monitoring, Reporting, Verification (MRV)**
**REPORTING FREQUENCY:** Annual reporting of CO2 emissions.

**VERIFICATION:** Third-party verification is required. In addition, further assessment of all validation reports was carried out by the government. On-site cross reverifications were also conducted by third parties for all compliance entities with questionable verification reports, as well for randomly selected entities. These have been shifted to fourth-party assessment and verification since the 2016 compliance period.

**FRAMEWORK:** The Department of Ecology and Environment of Guangdong has released guidelines for monitoring and reporting for the compliance and reporting sectors.

**OTHER:** Industrial enterprises with annual carbon emission of more than 5,000 tonnes and less than 10,000 tonnes are required to report. Verification is not required.

**Enforcement**
Penalties for failing to submit emissions or verification reports on time range from CNY 10,000 (USD 1,423) to CNY 50,000 (USD 7,113). Furthermore, companies failing to surrender
enough allowances to match their emissions will be deducted twice the amount of allowances from the following year’s allocation and are fined CNY 50,000 (USD 7,113). Other nonfinancial penalties include negative impacts on access to bank loans and subsidy programs.

### Linking

| Links with other Systems | No information available yet. |

### Other Information

<table>
<thead>
<tr>
<th>Institutions involved</th>
<th>Guangdong Ecology and Environment Bureau (competent authority); Emissions Exchange Guangzhou (trading platform)</th>
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<tbody>
<tr>
<td>Evaluation / ETS review</td>
<td>No information available yet.</td>
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<tr>
<td>Revenue</td>
<td>Since beginning of program: CNY 804 million (USD 114 million)</td>
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<td>Collected in 2019: No revenue in 2019 (no auctions took place in 2019)</td>
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<td></td>
<td>Guangdong has been exploring the establishment of a Low Carbon Development Fund that would use auctioning revenues to promote further mitigation actions, carbon finance, and low-carbon industry development. However, due to the change of competent authority, further information regarding the project has not been released.</td>
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<tr>
<td>Implementing Legislation</td>
<td>Guangdong Pilot ETS Implementation Plan Trial Measures for Emissions Trading in Guangdong</td>
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