

## China - Shanghai pilot ETS

### General Information

<p>Summary</p>	<p><b>Status:</b> ETS in force</p> <p><b>Jurisdictions:</b> Shanghai</p> <p>Shanghai was the second Chinese region to start its pilot ETS in November 2013 and has concluded seven compliance years to date. The pilot covers more than half of the city's emissions, including power, industry, and non-industrial sectors such as building, aviation, and shipping. It is the only pilot that has achieved 100% compliance rate continuously since its launch. In 2016, Shanghai expanded its ETS coverage by adding the shipping sector, as well as lowering the participation threshold of power plants and industries (which were included in the 2013-2015 phase) to 10,000 tCO<sub>2</sub>/year.</p> <p>Shanghai is the most active among the Chinese pilots in terms of offset credits trading. It also pioneered allowance spot forward trading in China*. In January 2017, the Shanghai Environmental and Energy Exchange and the Shanghai Clearing House jointly launched the over-the-counter 'Shanghai Emission Allowance Forward' contract, with central counterparty clearing, as an innovative financial product that serves a purpose similar to carbon financial derivatives. Shanghai has also carried out various other carbon finance innovations such as repurchases, carbon funds, carbon trusts, CCER pledge loans, green bonds, and carbon margin trading.</p> <p>In December 2017, Shanghai was selected to lead the development of the trading platform for the national ETS.</p> <p>In early 2019, the ETS-related responsibilities in Shanghai completed the transition from the Development and Reform Commission (DRC) to the Ecology and Environment Bureau (EEB), as a result of the governance restructuring across China.</p> <p>*China is still in the exploratory and research stage of carbon futures trading, and according to the "Administrative Regulations on Futures Trading" document, futures trading can only be traded on approved professional futures exchanges. Therefore, regional ETS pilots cannot introduce futures trading. However, a few of them have developed carbon forward trading products with their own characteristics.</p>
<p>Year in Review</p>	<p>The Shanghai EEB released the 2019 allocation plan in June 2020. No significant changes were implemented compared to the allocation plan of the previous year.</p> <p>In 2020, the Shanghai pilot also opened its auctions to institutional investors for the first time. Before that, participation in the Shanghai auctions had been limited to the compliance entities. By diversifying the participants in the auctions, the Shanghai pilot further increases its liquidity and promotes price discovery.</p> <p>The Shanghai ETS completed its compliance work for 2019 in October 2020, after some delay due to the COVID-19 pandemic, reporting its 7th consecutive 100% compliance rate.</p>
<p>Overall GHG emissions (excluding LULUCF)</p>	<p><b>Emissions:</b> 297.7 MtCO<sub>2</sub>e (2012)</p>

Overall GHG emissions by sector (in MtCO <sub>2</sub> )	No information available yet.
GHG reduction target	<p><b>BY 2020:</b> 20.5% reduction in carbon intensity compared to 2015 levels. The total CO<sub>2</sub> emissions to be limited within 250 million tonnes (13th Five-Year Plan)</p> <p><b>BY 2025:</b> pledged to peak the total and per capita CO<sub>2</sub> emissions (Shanghai Urban Master Plan 2017-2035)</p> <p><b>BY 2040:</b> ~15% reduction in CO<sub>2</sub> emissions compared to the peak level (Shanghai Urban Master Plan 2017-2035)</p>
Carbon Price	<i>Current Allowance Price (per t/CO<sub>2</sub>e):</i> CNY 40.11 (USD 5.81) (updated prices available <a href="#">here</a> )

## ETS Size

Covered emissions	0.57
GHGs covered	CO <sub>2</sub> only
Sectors and thresholds	<p>Airports, domestic aviation, chemical fibers, chemicals, commercial, power and heat, water suppliers, hotels, financial, iron and steel, petrochemicals, ports, shipping, nonferrous metals, building materials, paper, railways, rubber, and textiles.</p> <p><b>INCLUSION THRESHOLDS:</b>  <b>For power and industry:</b> Either 20,000 tCO<sub>2</sub>/year or 10,000 tce/year; and those that already participated in the 2013-2015 phase with 10,000 tCO<sub>2</sub>/year or 5,000 tce/year.  <b>For Transport:</b> Either 10,000 tCO<sub>2</sub>/year or 5,000 tce/year (aviation and ports), 100,000 tCO<sub>2</sub>/year or 50,000 tce/year (shipping).  <b>For Buildings:</b> Either 10,000t CO<sub>2</sub>/year or 5,000 tce/year.</p>
Point of regulation	<p>Downstream.</p> <p>Both direct and indirect emissions from electricity and heat consumption are covered.</p>
Number of entities	313 (2019), including 280 existing and 33 new entities
Cap	158 MtCO <sub>2</sub> e (2019, including reserve)

## Phases & Allocation

Trading periods	<p>Two trading periods:</p> <ul style="list-style-type: none"> <li>• the first period ran between 2013 and 2015;</li> <li>• the second period started in 2016, with no specific ending year.*</li> </ul> <p>*In the short term, the existing Chinese regional carbon markets are expected to operate parallel to 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.</p>
Allocation	<p><b>FREE ALLOCATION:</b> Free allocation based on sector-specific benchmarks (for the electricity and heat producers, and electricity grid sector).</p> <p>Grandfathering based on historic emissions intensity for part of the industrial sectors, aviation, ports, shipping, and water suppliers, generally based on the previous three years' data.</p> <p>Grandfathering based on historic emissions for airports, buildings, commercial sector, and part of the industrial sectors with complex products or considerable change in emission boundary, generally based on the previous three years' data.</p> <p>Ex-post allocation adjustments, e.g., on the basis of production data, are applied for those with historic intensity or benchmarking allocations.</p>

**AUCTIONING:** 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. One auction was held in each of the following years: 2014, 2016, 2018, and 2019.

In 2020, Shanghai held two auctions: one in August and the other in October. The floor prices were set differently: for the first auction, which was open to institutional investors and compliance entities, the floor price was set at the market weighted average price of all trading days in the second quarter of 2020. For the second auction, which was open to the compliance entities only, the floor price was set at 1.1 times the market weighted average price of all trading days from December 1, 2019 to September 30, 2020. The auctions offered 2 million tonnes of allowances each, with 100% and 5.9% of them cleared at the floor price of CNY 39.61 (USD 5.74) and CNY 44.27 (USD 6.42) respectively.

## Flexibility

Banking and borrowing	<p>Banking is allowed both within and across trading periods, with some restrictions for the latter. For banked allowances from the first trading period (2013-2015), only one-third could be used per year between 2016 and 2018 by compliance entities; allowances are fully bankable for institutional investors.</p> <p>Borrowing is not allowed.</p>
Offsets and credits	<p><b>QUANTITATIVE LIMIT:</b> Domestic project-based carbon offset credits—CCERs—are allowed. For compliance year 2019, the use of CCER credits was limited to 3% of the verified emissions, of which up to 2% was for credits generated outside the Yangtze River Delta region*. Between 2016 and 2018, the use of CCER credits was limited to 1% of the annual allocation. Between 2013 and 2015, the limit was 5%.</p> <p><b>QUALITATIVE LIMIT:</b> Credits for reductions that were realized before January 2013 cannot be used for compliance. Credits from hydro projects are not allowed.</p> <p>*This region covers Shanghai, Jiangsu, Zhejiang, and Anhui.</p>
Market Stability Provisions	<p><b>EXCHANGE:</b> Depending on transaction types, if prices vary more than 10% or 30% in one day, the Shanghai Environment and Energy Exchange can institute price stabilization measures such as temporarily suspending trading or imposing holding limits.</p> <p><b>RESERVE:</b> A small share of the annual cap can be kept in a reserve for auctioning before the end of the annual compliance cycle as a market stability measure (see “Allocation” section).</p>

## Compliance

Compliance Period	<p>One year (1 January to 31 December): covered entities have until 30 June of the following year to surrender allowances*.</p> <p>* In some recent years, the compliance deadlines have been postponed to later dates, for reasons such as the COVID-19 pandemic and other factors</p>
Monitoring, Reporting, Verification (MRV)	<p><b>REPORTING FREQUENCY:</b> Annual reporting of CO2 emissions.</p> <p><b>VERIFICATION:</b> Third-party verification is required. In addition, the government also conducts quality checks.</p> <p><b>FRAMEWORK:</b> The Shanghai government has released general rules for monitoring and reporting as well as sector-specific guidelines for the following sectors: iron and steel, electricity and heat, chemicals, nonferrous metals, non-metallic mineral products, textiles and paper, aviation, shipping, large buildings (hotels, commercial, and financial), and transport stations.</p>

Enforcement	<p>Penalties for failing to submit an emissions report or verification report on time or providing fraudulent information range from CNY 10,000 (USD 1,449) to CNY 50,000 (USD 7,245).</p> <p>Between CNY 50,000 (USD 7,245) and CNY 100,000 (USD 14,491) can be imposed for noncompliance, in addition to surrendering the adequate amount of allowances. Further sanctions may also be imposed, such as entry into the credit record of the company, publication on the internet, cancelation of ability to access special funds for energy conservation, and emissions reduction measures.</p>
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## Linking

Links with other systems	No information available yet.
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## Other Information

Institutions involved	Shanghai Ecology and Environment Bureau (competent authority); Shanghai Environment and Energy Exchange (trading platform); Shanghai Information Center (registry)
Evaluation / ETS review	No information available yet.
Revenue	<p>Since beginning of programm: CNY 102.2 million (USD 14.8 million) Collected in 2020: CNY 84.4 million (USD 12.2 million)</p> <p>The revenues are submitted to the general municipality budget.</p>
Implementing Legislation	<p><a href="#">Shanghai Pilot ETS Implementation Plan Trial Measures for Management of Emissions Trading in Shanghai</a> <a href="#">Shanghai EEB- Allocation Plan for Vintage 2019 (including list of covered entities)</a></p>

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