

CARBON MARKET BUSINESS BRIEF

CHINA

CHINA'S PILOT SYSTEMS AT A GLANCE

	Beijing	Shanghai	Shenzhen	Guangdong	Hubei	Chongqing	Tianjin	Fujian
Years in operation	Since November 2013	Since November 2013	Since June 2013	Since December 2013	Since April 2014	Since June 2014	Since December 2013	Since September 2016
Overall cap & trajectory	Around 50 million tCO _{2e} in 2017 ¹ .	The 2018 cap was 158 million tCO _{2e} .	Excluding buildings, the cap was around 31.45 million tCO ₂ in 2015.	Around 465 million tCO ₂ .	The cap was 256 million tCO _{2e} in 2018.	Around 100 million tCO _{2e} in 2018.	Around 160–170 million tCO ₂ in 2017.	Around 200 million tCO ₂ in 2017.
Target(s)	20.5% reduction in carbon intensity compared to 2015 by 2020.	Carbon intensity reduction of 20.5% compared to 2015, with an absolute emissions cap of 250 million tonnes CO ₂ . In 2012, the jurisdiction reported emissions of 297.7 million tCO ₂ .	45% reduction in carbon intensity compared to 2005 by 2020. The city has also pledged to peak its emissions by 2022.	20.5% reduction in carbon intensity compared to 2015 by 2020	19.5% reduction in carbon intensity by 2020, compared to 2015.	19.5% reduction in carbon intensity compared to 2015 levels by 2020.	20.5% reduction in carbon intensity compared to 2015 levels by 2020.	19.5% reduction in carbon intensity compared to 2015 by 2020.

¹ It is estimated to have also been around this level in 2018 and 2019, but the exact number is not available.

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Sectors covered	Industrial and non-industrial companies and entities with emissions in excess of 5000t CO ₂ annually from the following sectors: electricity providers, heating, cement, petrochemicals, other industrial enterprises, manufacturers, services, and public transport.	<ul style="list-style-type: none"> • Airports • Domestic Aviation • Ports • Shipping • Chemicals • Heat and power • Water suppliers • Hotels • Iron, steel and non-ferrous metals • Petrochemicals • Building materials • Paper • Railways • Rubber • Textiles • Large commercial shops 	<ul style="list-style-type: none"> • Power • Water • Gas • Manufacturing • Buildings • Port, subway, public buses and other non-transport sectors. 	<ul style="list-style-type: none"> • Power • Iron and steel • Cement • Paper • Petrochemicals • Aviation 	<ul style="list-style-type: none"> • Power • Industry 	<ul style="list-style-type: none"> • Power • Iron • Steel and non-ferrous metals • Chemicals • Cement • Caustic soda 	<ul style="list-style-type: none"> • Heat and electricity production • Iron and steel • Petrochemicals • Chemicals • Oil and gas • Paper, aviation, and building materials are included from 2019. 	<ul style="list-style-type: none"> • Electricity • Petrochemicals • Chemicals • Building materials • Iron and steel • Nonferrous metals • Paper • Aviation • Ceramics
GHGs covered	CO ₂	CO ₂	CO ₂	CO ₂	CO ₂	CO ₂ , methane, N ₂ O, HFCs, PFCs, SF ₆	CO ₂	CO ₂
# of covered entities	903, as of 2018. A further 624 entities have mandatory reporting but no surrender obligations.	298 as of 2018	794 as of 2017	242 existing plus 37 new entrants in 2019	338, as of 2018	195 as of 2018	113 in 2019	255 in 2018
Allocation method	Mix of free allocation and auction (except Chongqing, where units are freely allocated)							

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Sectors covered	Public online bidding and agreement transfer (OTC, exceed 10,000 tonnes per deal). Compliance entities, China domestic investors and individuals are eligible to trade.	Public online bidding and agreement transfer (OTC, exceed 100,000 tonnes per deal). Only compliance entities and domestic investors can trade.	Trading is via fixed price transactions, electronic bidding ($\pm 10\%$ limit on the daily price) and bulk entrusted transaction (in excess of 10,000 tonnes per deal, $\pm 30\%$ limit on the daily price). Trading is open to compliance entities, international and domestic investors and individuals.	Public online bidding and agreement transfer (OTC, exceed 100,000 tonnes per deal). Local compliance enterprises, international or domestic brokers, funds, trusts and individuals are eligible to trade.	Public online bidding ($\pm 10\%$ limit on the daily price) and agreement transfer (OTC). Compliance entities, international or domestic brokers and individuals are eligible to trade.	Public online bidding and OTC trades. Compliance entities, international or domestic brokers and individuals are eligible to trade.	Trading is either via online spot deals or OTC trades. Compliance entities, international or domestic brokers and individuals are eligible to trade.	Entrustment trading, exchange trades, fixed price transfers, and OTC deals. Only local compliance entities and Chinese domestic investors can participate.
Use of offsets and linking	Domestic CCERs are allowed, up to 5% of the annual allocation. Of these, 50% must be from Beijing projects. Only CCERs from renewable energy, energy conservation projects and forestry carbon sink projects are allowed.	CCERs can be used for 1% of the cap.	CCERs can be used for 10% of the annual compliance obligation. Hydropower project credits are not accepted, and there are geographic restrictions on the use of others.	CCERs are allowed. Credits from a provincial offset programme, Pu Hui Certified Emission Reductions (PHCERs), have been accepted since 2017. At least half of all offsets used must come from projects targeting CO ₂ or methane emissions, and at least 70% must come from projects located in the province. Credits from hydropower and most fossil fuel projects are not eligible.	CCERs can be used for 10% of the annual initial allocation for each entity. Only credits from rural biogas or forestry projects in the key counties under the national or provincial poverty alleviation plan (within Hubei) are eligible, and must have been generated between 1 January 2013 and 31 December 2015.	CCERs from 2010 onwards are allowed up to 8% of the compliance obligation, except for those from hydropower projects.	CCERs are allowed for up to 10% of the compliance obligation. They can only be from projects which target CO ₂ reductions, except hydropower, and must be of vintage 2013 or later.	CCERs from projects in the province and Fujian Forestry Certified Emissions Reductions (FFCERs) are allowed. The use of CCER credits is capped at 5% of the annual compliance obligation, whereas there is a cap of 10% for use of both credit types. Hydropower credits are not eligible.

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Other features	Banking is allowed. The Beijing ETS authority can organise an auction if the weighted average price exceeds CNY150 (USD21.34) for 10 consecutive days, and buy back allowances if the price is under CNY20 for a similar period.	Banking is allowed both within and across compliance periods, with some restrictions. Borrowing is not allowed.	Banking is allowed, borrowing is not.	Banking is allowed, borrowing is not.	Banking is allowed, but only for allowances which have traded at least once. The government withholds 8% of the total cap in a market stabilisation reserve.	Banking is allowed, borrowing is not.	Banking is allowed, borrowing is not.	Banking is allowed, borrowing is not.
Penalties for non-compliance	Companies face fines up to CNY 50,000 for failing to submit emissions or verification reports on time. Those which fail to surrender enough allowances to cover their emissions face a fine of up to five times the average market price over the previous six months for each allowance short.	Fines for missing the deadline to submit an emissions report or verification report on time or for providing fraudulent information range from CNY10,000-50,000. Non-compliance can yield a fine of CNY 50,000-100,000, as well as still needing to surrender the missing allowances. Further penalties may also be imposed, such as noting on the company's credit record, public reporting, and losing access to special funds for energy efficiency measures.	Any participant submitting false information will be fined for the difference between reported and actual emissions at a rate three times the average price for the preceding six months. Further, the shortfall in surrendered allowances can be withdrawn from the company's account or deducted from the following year's allocation.	Penalties for failing to submit emissions or verification reports on time range from CNY 10,000-50,000. Companies which do not surrender enough allowances will have double the shortfall withdrawn from the following year's allocation and are fined CNY 50,000. Non-financial penalties include negative impacts on access to bank loans and subsidy programmes.	Penalties for failing to submit an emissions or verification report on time range from CNY 10,000-30,000. Any participant found to have manipulated the market is liable to a fine of up to CNY 150,000. Any company with a shortfall in surrendered allowances will have double the amount taken off the subsequent year's allocation and fined one to three times the average market price per unit, up to a maximum of CNY 150,000.	There are no financial penalties for non-compliance. Non-financial penalties may include public reporting, disqualification from the energy saving and climate subsidies and associated awards for three years, and a record entered in the State Owned Enterprise performance assessment system.	There are no financial penalties for non-compliance. However, companies will be disqualified for three years for preferential financial support and other nationally-supported policies, such as energy efficiency	Penalties for failing to complete MRV range from CNY 10,000-30,000. Any company with a shortfall in surrendered allowances could have double the amount taken off the subsequent year's allocation and be fined one to three times the average market price per unit, up to a maximum of CNY 30,000. Penalties for misconduct of trading entities and their staff range from CNY 10,000-30,000.

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Use of revenues		CNY 18.17 million raised at auctions as of the end of 2019	CNY 2.6 million raised by auctions as of the end of 2019	CNY 804 million raised by the end of 2019	In 2019, CNY 122.74 million was collected		In 2019, CNY 15.7 million was raised	

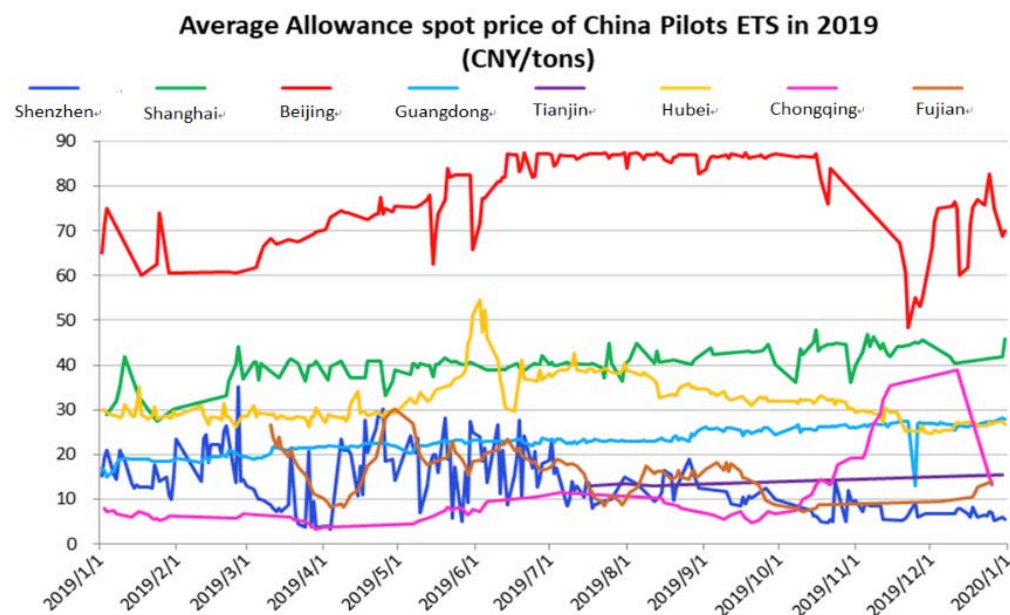
MARKET COMMENTARY

In 2019, a total of 86.67 million allowances traded across the eight ETS pilots. Guangdong pilot had the largest share, with total volume of 45.38 million tonnes, just over half of the total traded volume. Shenzhen saw 14.57 million change hands, accounting for 20% of the total traded volume. Hubei, Beijing and Shanghai saw 7.8 million, 7.05 million and 6.82 million trade respectively. Fujian, Tianjin and Chongqing saw less activity, reporting 3.3 million tonnes, 1.13 million and 0.48 million respectively.

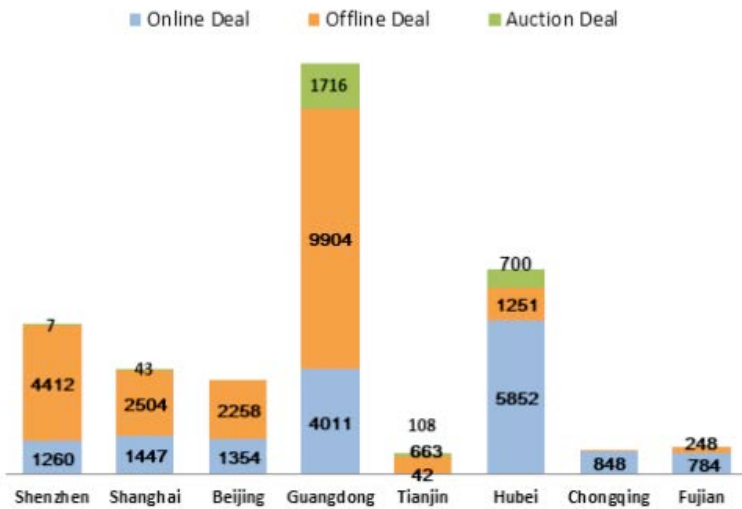
By end of 2019, the cumulative trading volume of the eight pilots had reached 395 million tonnes with a total value of CNY 9.16 billion (US\$1.3 billion), including all tradings exchange trading, OTC trades, and auctions, for both spot and forwards.

Traded volumes rose 11% in 2019 compared to 2018. Chongqing saw an 88% increase year-on-year, and Guangdong 60%. Markets in Shanghai and Fujian both saw an increase of around 15%. However, volumes in Shenzhen, Beijing, Hubei and Tianjin dropped; Tianjin and Hubei both posted more than a 30% drop and Beijing and Shenzhen 20%.

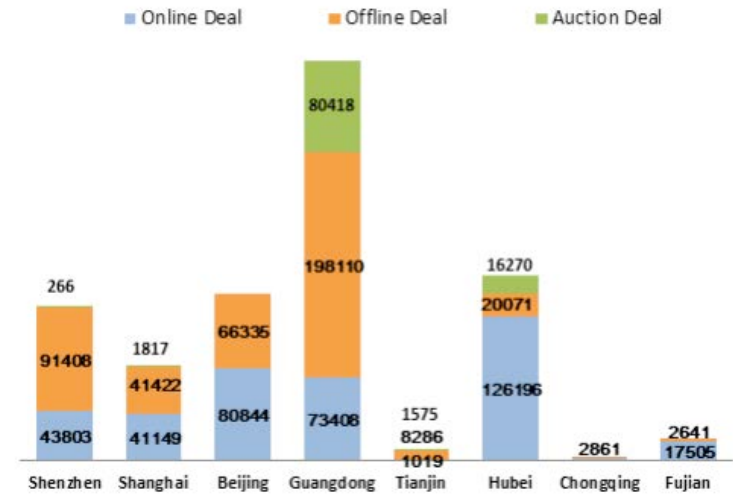
In 2019, Beijing has the highest spot price reaching CNY 78.80/t, and Chongqing the lowest CNY 9.70/t.



Spot trading volume of China's carbon market (10,000 tons)



Spot trading Amounts of China's Carbon Market (10,000 RMB YUAN)



USEFUL LINKS

[MEE China](#)

[NCSC China](#)

[China Beijing Environment Exchange](#)

[China Guangzhou Carbon Emission Exchange](#)

[China Shanghai Environment and Energy Exchange](#)

[China Hubei Carbon Emission Exchange](#)

[China Shenzhen Emission Exchange](#)

[Tianjin Climate Exchange](#)

[Chongqing Carbon Emissions Trading Center](#)

[China Fujian Environment and Energy Exchange](#)

[SinoCarbon](#)

[ICAP](#)

[World Bank's Carbon Pricing Dashboard](#)

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[SinoCarbon China Carbon Market 2019](#)

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