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A User Guide To Emissions Trading in China

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A User's Guide to Emissions Trading in China

1st Edition



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1.	INTRODUCTION	3
2.	CHINA'S EMISSIONS TRADING SYSTEM PILOTS—OVERVIEW	5
3.	PROSPECTS AND PLANS FOR NATIONAL CARBON TRADING	7
4.	A CARBON TAX: POLICY BACKGROUND AND HIGHLIGHTS	13
5.	CLIMATE POLICYMAKING: INSTITUTIONAL ARRANGEMENTS	17
6.	THE CHINESE CERTIFIED EMISSION REDUCTION (CCER)	11
7.	VOLUNTARY EMISSIONS TRADING SYSTEM	23
8.	A CHEATSHEET GUIDE TO THE CHINESE PILOTS	25
8.1	BEIJING ETS PILOT	25
8.2	SHANGHAI ETS PILOT	28
8.3	GUANGDONG ETS PILOT	33
8.4	SHENZHEN ETS PILOT AND TRADING RULES	37
8.5	TIANJIN ETS PILOT	42
8.6	HUBEI ETS PILOT	44
8.7	CHONGQING ETS PILOT	46
8.8	HANGZHOU ETS DESIGN	48

1. Introduction

This ‘User’s Guide’ to Emissions Trading in China,’ is the first attempt by IETA to take a closer look at all aspects of the pilot emissions trading systems under design and implementation in China, with a long view for the prospects of a national carbon market. We’ve provided briefings on each of the pilots in China for IETA members over the last 18 months, and this guide complements those briefings by stringing them together and understanding how they will fit into the designs of a national market and incorporate the newly-launched CCCER offset methodology.

IETA has always been a keen and active supporter of emissions trading in China. We held our first Carbon Forum Asia conference in Beijing back in 2006, and for the next 5 years we are very active voice in the growth of the CDM throughout China. In 2012, we held a workshop in Beijing where we brought +25 IETA member companies to lead discussions with Chinese companies on how emissions trading and carbon offsetting works. This workshop was the impetus for IETA to organise additional training workshops and launch in October, 2012 the “Business Partnership for Market Readiness,” or “B-PMR.”

The B-PMR got off to a strong start in 2013 with a week-long mission to the Shenzhen and Guangdong ETS pilots in China. Invited by local government leaders, the B-PMR organised a team of IETA experts from 20 companies to meet with local businesses and policymakers in southern China. We are building the B-PMR with a clear objective: to support the development of good business practices in the operation and/or design of market based instruments to reduce emissions of greenhouse gases in new jurisdictions that are developing emissions trading and carbon pricing policies. Our next Missions will take place in Seoul in September, 2013 and Shanghai in October, 2013.

This guide incorporates the information we’ve gained from the our workshop and BPMR Missions in China, and puts it together with all the publicly available official documents related to the draft rules on emissions trading in the pilots and nationally. We hope that it will continue to be a ‘living document,’ that we can update and revisit annually so that it becomes a go-to guide for anyone interested in knowing the in’s and out’s of emissions trading in China.

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***Disclaimer:** this document is not to be interpreted as actual policy of the People’s Republic of China. We have tried to understand and report draft policy on emissions trading in China,*

but it by no means should be interpreted as actual rules or legislation. We also understand that there may be discrepancies or differences in the interpretation of such policy. In order for the document to benefit all readers, we encourage you to contact us if you find an error or areas for improvement. It is a real 'living document,' and we hope to improve it over time. Thank you for your support and understanding.



2. China's Emissions Trading System Pilots—An Overview and Summary Chart

	Beijing	Shanghai	Guangdong	Shenzhen	Tianjin	Hubei	Chongqing	Hangzhou
Trading Period	2013-2015	2013-2015	2013-2020	2013-2015	2013-2015	2013-2015	2013-2015	2013-2015
Emission Target	To be Decided To Reduce Carbon Intensity by 10% and consider energy consumption cap	To be decided To meet 19% carbon intensity, 50% of the city's total emissions over 100 million tons	To be decided 660 million ton cap 2015 (plan) to meet 19% carbon intensity, 42% of province's total energy consumption	To meet carbon intensity target, 21% before 2015 (To be Decided)	To meet carbon intensity target 17% by 2015 To meet lower than 1.69 Ton of CO ₂ emission/10,000 RMB GDP. Over 3% of non-fossil fuel usage	To be decided To meet carbon intensity reduction of 17% of energy consumption by 2015	To be decided Increase forestry coverage from 39% to 45%, 17% carbon intensity reduction and 16% of energy consumption over 2015 levels	To be specified To meet energy intensity target by 19.5% by 2015
Emission Type	Carbon dioxide Direct (electricity generation and heating) and indirect (manufacturing, public buildings)	Carbon dioxide (Direct and indirect)	Carbon dioxide (Direct and indirect)	Carbon Dioxide (Direct and indirect)	Carbon Dioxide (Direct and indirect)	Carbon dioxide (Direct and indirect)	Carbon dioxide (Direct and indirect)	To be specified
Emissions Threshold	+10,000 tons per year as the average from 2009 to 2011. Covers 50% of total emissions	+20,000 tons per year for major sectors in 2010 or 2011. Above 10,000 tons per year for other sectors (aviation, ports, railways, hotel, finance)	+20,000 tons CO ₂ per year from 2010 to 2012. Enterprises with more than 10,000 tons CO ₂ emissions per year must report	+5,000 tons per year	Above 20,000 tons per year in any year since 2009. 60% of Total Emissions covered	+60,000 tons coal consumption for major sectors in 2010 or 2011. Enterprises with +8,000 tons coal consumption will join at a later stage	+20,000 tons CO ₂ emissions per year. 35-45% of Total Emissions covered (expected)	Energy consumption industries; 865 firms + 3,000 tons of coal consumption annually
Cap coverage	435 companies (600 expected). Heat supply, power, cement, petrochemical, car manufacturing, and public buildings	197 entities listed (steel, petrochemical, chemical, non-ferrous metal, power, building materials, textile, paper, rubber and chemical fibre industry)	827 firms listed (power, cement, steel, ceramics, petro-chemical, non-ferrous metals, plastics, paper)	635 entities listed from 26 sectors which cover various forms of industry in addition to power, gas and water supply. Participation open to any financial institution. 197 public use buildings	130 firms listed from Iron and steel, chemicals, electricity, heat, petro-chemical, oil and gas mining, civil construction	153 entities are listed (electricity, steel, chemical, cement, automobile manufacturing, power generation, non-ferrous metals, glass, paper etc.)	300 companies, 6 sectors: electro-plated aluminum, metal alloy, calcium carbide, caustic soda, cement, steel & iron	To be specified
Other Sectors	Not available	Airline, port, airport, railway, commercial, hotel, finance	Transport and building	Not Available	Not Available	Not Available	Finance	To be specified
Baseline Years	2009, 2010, 2011	2009, 2010, 2011	2011, 2012	2009, 2010, 2011	From 2009 to 2013	2010, 2011	2010, 2011	2010
Allocation Methods		One-off and free allocation based on 2009-2011 considering emissions growth. Benchmarking used for sectors when conditions allow. Auctioning considered. Government can hold some allowances	Free allocation and purchasing from government according to historical emissions and sectoral production capacity. Auctioning is considered.			Allowances issued for free before May 30 each year. Auctioning will be considered.	Not available	To be specified Extra allowances are withdrawn or bought back by EIC if firms close

	Beijing	Shanghai	Guangdong	Shenzhen	Tianjin	Hubei	Chongqing	Hangzhou
Borrowing/Banking	No borrowing, banking is allowed during pilot period	No borrowing. Banking is allowed during pilot period	Borrowing is not allowed. Banking allowed with DRC's permission	Banking is allowed during the first trading period (2013-2015)	To be decided	Banking and borrowing not allowed	Not specified	To be specified
MRV	Build enterprise emissions inventory. 3rd party verification required to DRC in March. Penalty not specified	Emissions audits. Submit verified emissions by 3rd party. Penalty not specified	Emissions audits. 3rd party verification required.	MRV guidelines in place.	Build enterprise emissions inventory and investigation systems. 3rd party verification required	Firms with coal consumption +8,000 tons per year must complete MRV procedures. 3rd party verification required.	Firms with standard coal consumption +8,000 tons per year must complete MRV procedures. 3rd Party Verification required.	No MRV guidelines in place. Energy supervision centre shall monitor energy consumption enterprises. Economic Information Commission (EIC) in charge
Offsets	Allow certified project based reductions, such as CCER	Allow certified project based reductions, such as CCER, limited to 5% of allocation amount	Allow certified project based reductions such as CCER or credits registered in Guangdong. 10% CCER limit of registered allowances	Allow certified project based reductions, such as CCER; The available amount of CCERs will be limited	Allow certified project based reductions such as CCER; Enterprises are allowed to purchase CCER to fulfill no more than 10% of their annual CO2 emissions	Allow certified project based reductions such as CCER (including forest carbon sinks). Offset limit 15% of allocation. 10% limit for new entrants	Allow certified project based reductions such as CCER (including forest carbon sinks)	To be specified
Penalties	Not Specified	Not submitting reports: 10,000-30,000 Yuan Resisting verification: 30,000-50,000 Yuan Non-Compliance: 50,000-100,000 Yuan	Excessive Emissions: 3 x average market price. No permissions on new projects and installations	Penalty 3x the average market price for the emissions that exceed the limit	To Be Specified	Excessive Emissions: 3x average market price	Allow certified project based reductions such as CCER (including forest carbon sinks)	To be specified
Registry	Established by the end of 2012	Established by the end of 2012	Not Specified	Not Specified	Not Specified	Not Specified	Established by Chongqing DRC	Not Specified
Trading Platform	Beijing Environment Exchange	Shanghai Environment and Energy Exchange	Guangdong Emission Exchange	China Shenzhen Emission Exchange. Only spot, not futures. Opening day value of transactions: 613,236 Yuan	Tianjin Climate Exchange	Wuhan Optics Valley United Property Rights Exchange	Chongqing United Assets and Equity Exchange	Hangzhou Emissions Trading Platform
Linking	Not Specified	Not Specified	Plan to link with pilot ETS in Hubei Province	Not Specified	Not Specified	Plan to link with pilot ETS in Guangdong Province	Not Specified	Not Specified

3. Reading the Tea Leaves: Prospects and Plans for National Carbon Trading in China

China is a member of the World Bank’s Partnership for Market Readiness (‘the PMR’). According to the World Bank’s PMR website, ‘the PMR is a forum for collective innovation and action and a fund to support capacity building to scale up climate mitigation.’

China is one of 16 participating countries that will receive funds after submitting a market readiness proposal (MRP), which is peer reviewed by the World Bank and donor countries to the PMR. On the PMR website, the MRP is ‘a roadmap for the design and implementation of market readiness capacity and a market-based instrument.’

In March 2013, China submitted its final MRP to the PMR Assembly of countries, and was successfully awarded \$8 million in funding to research and begin the designs of a national emissions trading system.

This section will highlight some elements of the potential national emissions trading system based on China’s MRP. China’s MRP includes aspects on how to ‘design and prepare for a national ETS, including work on cap setting, allocation, MRV, mechanisms for price containment, market oversight and a legal framework;’

Cap setting

According to the MRP, China is considering three methods on how to set the cap:

Top-down method	Bottom-up method	Coordination method
The national target is set by the central government, which is subsequently broken down into the sub-national targets at the provincial and city level. This method decreases the flexibility for local governments and puts the main aspects of an administrative burden on the central government.	The ETS cap at a national level is calculated by compiling allocations to each covered enterprise on the local level before adding them up together. The precondition for this method is to clearly identify key emitters from the start of the cap-setting process and to ensure their compliance from the start.	This approach combines the top-down and bottom-up methods, which means that the cap is set at local level first and subsequently reviewed by national authorities. There are different options available. This implies that local governments assume the main administration and management responsibilities, in particular compiling emissions data and allocating allowances. However, the central government is responsible for creating national standards, and reviews the allocation plans of each of the local governments.

Given that China has a wide variety of industrial sectors, and the number of covered installations in China will be **quite extensive**, it will be **difficult for the central** government to manage emissions centrally. It is thus very likely that China will opt for the coordination method.

Sector Coverage

The MRP states that the basic principle to determine the sectors to be covered under China's national ETS is to simply identify the largest emitters, and the sectors with the largest emission reduction potential and mandate their coverage under the cap. According to the MRP, it is interpreted by ETS policymakers in China that the term '**largest emitters**' should mean the sectors with the highest emission growth rates, as they contribute substantially to the increase in China's greenhouse gases. Sectors with a '**Strong emission reduction potential**' will be determined by analysing which sectors have a low level of energy intensity compared to the energy intensity of that sector in other countries. These sectors, according to the MRP, will also likely be covered under a nation-wide Chinese ETS. According to the IEA, the following sectors are the largest emitters and represent the major sources of greenhouse gas emissions in China:

- Coal Mining
- Electricity production and transportation
- Oil refining/processing
- Coal coking
- Nuclear fuel processing
- Chemical processing and manufacturing
- Non-metallic mineral manufacturing
- Smelting/Processing of metals and non-ferrous metals

However, the exact information on which sectors the Chinese administration plans to include is not yet available. At the moment, the government is considering the potential effects on the economy that would result from the application of the ETS to each of these sectors, and comparing the effectiveness of an ETS with other policy options for each scenario. This is a major aspect of the work undertaken by China which will be funded through the PMR.

SOEs and China's Power Sector

China's state-owned enterprises (SOEs) will be covered under a national ETS. At present, there are 117 large-scale SOEs in China. They are all engaged in key sectors such as power generation, oil exploration, petroleum processing, iron and steel production, building

materials, machine manufacturing, aviation and finance, etc. According to an IEA report on to design an emissions trading system for China's power sector, 40% of the emissions from fossil fuel consumption derive from the power sector¹. Moreover, considering the total amount of emissions, 50% of emissions stem from the power sector. Similarly, 31.2% of CO₂ emissions are rooted in the manufacturing and building sector. Thus, China's power sector and SOEs will most certainly be included in a nationwide ETS. The MRP also states that a simple way to implement the system and make it operational would be to start with CO₂ first, and add in other greenhouse gases later (in subsequent phases).

Clearly, a major threat to a nation-wide ETS in China will stem from resistance by its SOE's. While it is encouraging that the PMR will help fund studies and workshop activities to help overcome this, the involvement of SOE's will require political support and involvement at the highest political level.

Legal and institutional frameworks

- a) **Legal framework:** At the time of writing, the seven ETS pilots are based on provincial and/or municipal administrative rules as their main source of legal enforcement. These are complemented by technical standards and implementation rules set forth in each pilots' draft rules. Under a nationwide ETS, however, China must establish a transparent legal framework at the national level in order to facilitate and enforce industry participation in the program.
- b) **National Registry:** the NDRC is currently implementing a programme to design a national registry. The registry design is a joint project between the NDRC and the United Nations Development Programme (UNDP). In addition, the seven ETS pilots are actively developing their own registries. The registries will likely be housed on the carbon exchanges in each of the pilots. Due to the multitude of different systems which is thereby being created, cooperation between the national registry and local registries will be critical. There has not yet been any publicly shared information on the design and scope of a national emissions registry.
- c) **Governing agency/ETS administration:** The NDRC is expected to be the competent authority for managing the overall national emissions trading system. The NDRC's detailed obligations, responsibilities and burden sharing with other government agencies have yet to be defined. Moreover, an expert committee or think-tank is necessary to provide technical and professional support for the establishment of the ETS.

¹ "Policy Options for Low-Carbon Power Generation in China: Designing an emissions trading system for China's electricity sector," Richard Baron et al accessed via the IEA website [here](#) [05.09.2013]

MRV (Monitoring, Reporting, and Verification)

MRV takes up a significant section of the MRP submitted by the NDRC to the PMR Assembly. To ensure brevity in this User's Guide, we have highlighted the recommendations the government has outlined to ensure MRV is conducted with efficiency.

- i. **Monitoring:** In a national system, monitoring would be self-conducted by covered entities directly. Those reports, once finalized, would setting up the MRV system, China needs to consider these variables: Practicability, monitoring costs as well as appropriate parameters and the monitoring method.
- ii. **Reporting:** Reporting of emissions and subsequent emissions reductions will be self-fulfilled by covered entities in the ETS. The report must be sent to a third party for verification. The report sent to the verifier must include specific documents, activity data, and follow a strict reporting period.
- iii. **Verification:** The verification requirement is conducted by a third party verifier, who issues a verification report which is sent to the covered entities for further adjustment and cross-check. According to the MRP, the standards and qualification requirements of the verification sector need to be examined.

Market oversight

A well-functioning market oversight system is necessary in order to watch over market behaviour in an ETS. Key issues in the MRP to be considered by policy makers include:

- i. **Contracts:** According to the NDRC, emissions shall be traded using a standardised contract, but details on how trading will be done remain unclear at the time of writing.
- ii. **Transaction type:** In the initial stage, emissions are expected to be traded via spot transactions only. Futures trading could be included in a more mature market; however there could be a possibility of futures trading during the 'transition' to a nation-wide ETS.
- iii. **Market oversight rules:** Due to the differences in design among the emissions trading pilots in different regions of China, a standardised approach to market oversight will need further study.
- iv. **Institutional support:** Chinese policy makers have not yet decided which governing agency will be fully responsible for market oversight.

Compliance

Key issues affecting penalties and compliance of the system remain to be decided, including clarifying the various forms of penalties, creating the proper legal basis, defining the scale of penalties, and establishing the most effective competent authority at the

national and local level to enforce penalties and ensure compliance across the system.

At the moment, a local government cannot set an effective ETS penalty mechanism without the NDRC granting it the authority to enforce compliance and penalties. This is due to the absence of a nationwide ETS policy. Moreover, even if a local government does have such authority granted to it by the NDRC, it is difficult for local governments to set an effective penalty price. In China, penalties and their set prices are provided with a quasi ‘penalty-price ceiling’ by the national government. It is therefore difficult for a local government to establish an ETS penalty procedure and the subsequent price. According to the MRP, the most effective way to create a balanced and standardised system for ETS enforcement and penalty pricing across China is to determine the CO₂ abatement cost curve of various technologies. This would lead to a policy scenario whereby the fine would be different between diverse sectors—this is practical in a diverse economy like China.

For an example of penalties at the local level, please refer to the Shanghai ETS case study in this report.

Emissions Trading, Offsets and Linking

- a. Price containment:** China is likely to establish a price containment mechanism in its national ETS in order to keep prices stable. A price ceiling and floor for the allowance price can help to mitigate fluctuation in the market and keep the development consistent, in particular in the initial stage of an ETS. No further details were included in the MRP.
- b. Offset mechanism:** China will establish a specific offset mechanism called the ‘CCER’, which will be similar to the CDM and used across a nationwide ETS.

For further details on the CCER, please refer to the CCER Methodology section of this report.

- c. Linking:** China may establish a linking scheme that incorporates emission allowances and reduction credits outside the national ETS. Before this can be done, key issues like the type, proportion and the sources of offsets, as well as a comprehensive accounting system to avoid double accounting need to be established. Linking is appealing to the authors of the MRP study, but no further details were included.

Not mentioned in the MRP, but one example of linking that could occur quite quickly is with the Hong Kong SAR (Special Administrative Region) and Guangdong and/or Shenzhen’s pilot ETS. Discussions between these governments have not yet reached the level of public consultation at the time of writing.

Participants and trading platforms

Financial institutions: To facilitate the development of strict trading rules and a functioning oversight system, the participation of financial institutions in the ETS is necessary.

Exchanges: Exchanges are important players in any carbon market, as they gather sellers, buyers, hedgers and speculators and provide trading services. The precise functions and roles of exchanges in the national ETS will need to be further clarified by the Chinese government.

New entrants: When allocating allowances to new entrants, China will not only consider the previous years' emissions, but also analyse future emissions and estimates of production capacity. Incremental emissions resulting from increased production capacity at the micro-level should also be considered.

References:

[1] [IEA report: emissions from fuel combustion](#)

IEA

[2] [Design of China's National Emissions Trading Scheme](#)

Climate Change Department, NDRC

[3] [Market Readiness Proposal \(MRP\): Establishing a National Emissions Trading Scheme in China](#)

NDRC

4. A Carbon Tax: Policy Background and Highlights

Background: Environment related taxation² in China

China has no climate change law, or any law to issue a nation-wide tax or levy on environmental issues at the time of writing. However, it is common practice in China for some taxes and government fees to be indirectly allocated towards environmental protection and energy-efficiency at the local level.³ These taxes are classified in the government as ‘environment related taxes,’ and are a foundation for the government to impose an environment tax in the future.

In this section, we look at the China’s natural resource tax, its existing pollution discharge permit system, and its existing fuel tax. We use these 3 policies as examples to show how environment-related taxes work in China.

At the time of writing, China has a draft carbon tax that is being tabled for discussion amongst carbon-intensive industries. It is unclear how China plans to simultaneously impose both a carbon market and a tax, but all signs point towards both policies emerging during the next 5-year-plan (2016-2020).

Example 1. China’s natural resource tax is currently imposed on producers and companies that bring to market crude oil, natural gas, coal, non-metallic minerals, ferrous and non-ferrous metals, and salt. The natural resource tax rate for crude oil producers is based on their sales income (measured at various times throughout the year). The tax rate for the other industries is based on their annual production. The State Council sets the national resource tax rate for all industries.

- Legislation: ‘Revised Measures on China’s Natural resource tax,’ which was issued by the State Council in 2011.⁴ The implementation of China’s natural resource taxes⁵ are administered by the State Administration of Tax and its local tax bureaus. The Ministry of Finance and the State Administration of Tax maintain and update the relevant legislation. Any changes to the tax scope and coverage, or its rate are made by the State Council.

² In China, the environment related taxes are not types of specified tax. These taxes have their own names, for instance, natural resources tax, consumption tax, value-added tax. But they can result environmental protection and saving energy consumption in practice. So we call them environment related taxes.

³ It is reported that some taxes are related to the environmental protection and energy-saving consumption. They are [value-added tax, the vehicle and vessel tax, the consumption tax, natural resource tax, the city maintenance tax and the city land-use tax](#), accessed on 09 August 2013

⁴ [Order of the State Council: the promulgation of the Interim Measures on Natural resource tax](#), published on 10 October 2011, accessed on 08 August 2013

⁵ [Order of the State Administration of Taxation, published on 28 October 2011](#)

Industry		Tax Rate
Crude Oil		5%-10% of the sales benefits
Natural Gas		5%-10% of the sales benefits
Coal	Coking Coal	¥8-20/tonne
	Other Coal products	¥0.3-5/tonne
Non-Metallic Minerals	Regular Metals	¥0.5-20/tonne or cubic metre
	Precious Metals	¥0.5-20/tonne or carat
Ferrous metals		¥2-30/tonne
Non-ferrous metals	Rare earth elements	¥0.4-60/tonne
	Others	¥0.4-30/tonne
Salts	Solid Salts	¥10-60/tonne
	Liquid Salts	¥2-10/tonne

Example 2. China's pollution discharge permit system has been in place since 2003, and is largely based on the 'polluter pay principle.' It is implemented at the national level, and polluters (specified below) are required to pay a fee on the amount of their pollution discharge. China applied the charge system in order to control domestic pollutants. Key Points:

- Rules: An Administrative Regulation on the Charge System on Pollutants discharge was issued in 2003,⁶ followed by technical rules on charging polluters⁷.
- Coverage: The pollution discharge permit system mainly covers five pollutant types: wastewater pollution, air pollution, waste residue, radiation and noise pollution. In total, 113 types of pollutants are included in the system. Explicit types of pollutants and the calculation method are provided in the above two rules.

Example 3. China's fuel tax was passed on 5 December 2008, and has been implemented since 1 January 2009. The impetus behind the creation of the fuel tax is to cancel 6 existing administrative expenses on public transportation infrastructure and maintenance, and to replace them by a single fuel tax.

⁶ [Order of the State Council: the Promulgation of the Charge System on Control Domestic Pollutions](#), (01 January 2013) accessed on 07 August 2013

⁷ [Rules on Charging Polluters and Charging Rate](#), promulgated by the National Development and Reform Commission, the Finance Ministry, the Ministry of Environmental Protection and the Ministry of Commerce of the People's Republic of China, published on 28 February 2003, accessed on 08 August 2013

Fuel Tax Rate

Item	Fee	Fuel tax
Gasoline	¥ 0.2/litre	¥ 1/litre
Diesel	¥ 0.1/litre	¥ 0.8/litre

On May 23, 2013, the **Draft Environment Tax Law** (the carbon tax) was issued by the Ministry of Finance and sent first to China's most carbon-intensive industries and business associations for comments and review. The highlights from the draft are:

- **Current status:** The Draft Environment Tax Law has been sent to the China Coal Association, China Electricity Council and the China Non-ferrous Metal Industry Association for comments and review. It is unclear at the time of writing what are the next steps with the draft.
- **Tax Rate:** The State Council and provincial governments will decide the rate of environment tax. The carbon tax will be **more than ¥10 per tonne**. More details on the tax are not available at the time of writing.
- **Timeline:** The government will announce the start date of the tax based on the overall policy framework for addressing climate change. It is expected that the tax will likely be issued in 2015, and come into force in the next 5-year-plan (from 2016 onwards).⁸
- **Coverage:** Coal, coal-related products, coke-oven gas, crude oil, gasoline, diesel, fuel oil, liquefied petroleum gas, natural gas and other fossil fuels will be subject to the tax.
- **Tax Reductions:** Energy-intensive sectors that have installed and operating CCS technologies will be eligible for a tax reduction.
- **Legislative working group:** The tax will be administered by a working group composed of the Ministry of Finance, State Administration of Tax, Ministry of Environment and the General Legal Office of the State Council.
- **Governance:** The Ministry of Environment and the Bureaus of Environmental Protection are responsible for ensuring the type and amount of pollutants that will be subject to the tax. The State Administration of Tax and Tax Bureaus at the local level will issue the environment tax levy.

Challenges

It is expected that China's state-owned enterprises (SOEs) will be reluctant to accepting any form of environmental taxation-including a specific carbon levy. The biggest challenge at the moment and until 2016 will be up to policymakers to simultaneously decide the coverage of

⁸ [Order of the State Council: the Promulgation of the Charge System on Control Domestic Pollutions](#), accessed on 07 August 2013

a national carbon market and imposing a carbon tax. China’s policymakers will need to study closely the merits and perils of overlapping policies that existing ETS jurisdictions face in addition to the challenge of implementation and enforcement of such a tax at the provincial and municipal level.

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- [1] [Discussion on imposing the environment tax in China](#) (original in Chinese) (The Chinese Tax Institute)
- [2] [Order of the State Council: the promulgation of the Interim Measures on Natural resource tax](#) (State Council)
- [4] [Order of the State Council: the Promulgation of the Charge System on Control Domestic Pollutions](#) (Xinhua News)
- [5] [Rules on Charging Polluters and Charging Rate](#) (The NDRC, The Finance Ministry, The Ministry of Environmental Protection and The Ministry of Commerce of the People’s Republic of China)
- [6] [Order of the State Council: the Promulgation of the Charge System on Control Domestic Pollutions](#) (Xinhua News)
- [7] [Imposing carbon tax over ¥10 each tonne](#) (Renmin News)
- [8] [China’s pollution discharge permit system](#) (The NDRC)

5. Climate Policy-Making in China: Institutional Arrangements and Dynamics

As China gears up for a potential national carbon market, it is increasingly important to understand and evaluate the dynamics and positions of various policy-making bodies responsible for environmental and energy policy. Passage of national emissions trading legislation will only be possible if the various policy-making agencies in China (see below) agree on the design, scope, and respective responsibilities.

This section will explore dynamics between different government agencies in China, to understand some of the political challenges in establishing a nation-wide emissions trading system.

China's official governing framework to address climate change is the 'National Leading Committee on Climate Change, which was launched in June, 2007. It is made up of 20 ministries, and led by the Premier.

China follows a Five-Year-Plan (FYP) model, which has been its traditional policy framework since 1953. It shows the initiatives and a blueprint of the social and economic development across the entire country. Every administrative region is included into the FYP, and its targets and goals are strongly enforced. China's 12th FYP was the first to raise the need to develop a low-carbon economy and pilot market-based mechanisms to reduce GHGs. Then [the Work Plan on the Greenhouse Gas Emissions Reduction](#) and [the Notice of Piloting the Emissions Trading](#) in Seven Provinces and Cities are adopted by the State Council and the NDRC, respectively. After that, the government work plans on piloting the emissions trading in the designated seven provinces and cities are published, preparing the law-making on the ETS pilots.

- **The National Development and Reform Commission (NDRC):** [The National Development and Reform Commission](#) (NDRC) is a central-level Commission under the leadership of the State Council. The NDRC is well known for its responsibilities to formulate and implement economic and social development policy, but is also becoming increasingly well-known for its work on climate policy. The NDRC represents China at the UNFCCC in coordination with the Ministry of Foreign Affairs, and issues statements and papers on climate policy in China. Under the NDRC, a specific department and an in-house think-tank are both working on climate policy and GHG regulation. [The Department of Climate Change](#), housed within the NDRC, is responsible for international climate negotiation and making domestic climate policy. [The National Centre for Climate Changes Strategy and International Cooperation](#) (NCSC), established in 2011, plays the role of a government

think-tank, and is responsible for designing the national carbon market. The NDRC is also China's Designated National Authority (DNA) under the Kyoto Protocol.

The NDRC is the responsible agency for designating the seven provinces, municipalities and one Economic Specific Zone (ESZ) to pilot emissions trading during China's 12th Five-Year-Plan. By following the order of the NDRC, **local development and reform commissions** (LDRC) started piloting carbon trading in making laws and policy. In voluntary carbon emission reductions, the NDRC has promulgated [the Interim Measures on China's Voluntary Emissions Trading](#).

- **The Ministry of Environmental Protection (MEP):** The Ministry of Environmental Protection (MEP) is responsible for establishing and implementing domestic policy related to pollution and environmental issues at large. The MEP has a mandate to assess and implement environmental policy throughout China, whereas the NDRC is largely focused on development and the reduction of greenhouse gases (GHG's).

Thus far, the MEP has not been a major stakeholder in the development of the pilot emissions trading systems. If China institutes a national emissions trading system, the MEP will need to enforce the program, and ensure stakeholders lawfully comply with its relevant rules and regulations. At the time of writing, there is little or no publicly available information on how it will carry out this mandate.

- **The State-owned Assets Supervision and Administration Commission of the State Council (SASAC):** SASAC is the regulatory and policy-making body for legislation that impacts the 117⁹ state-owned enterprises (SOE's) that touch upon every facet of the Chinese economy. SASAC's role in energy and environmental policy should never be understated: it is the voice of China's major industries. If it decides that a policy is too cumbersome for industry, then aspects of the policy will ultimately have to be rewritten or changed in some form. SASAC thus far has been focused on energy policy, rather than direct environmental regulation. Starting in 2013, SASAC has begun introducing "European-style" energy management systems to 113 SOEs to boost their energy efficiency and emissions reductions.¹⁰ In addition to addressing energy efficiency, these energy management systems help SOE's implement uniform standards on carbon emissions disclosure and monitoring, reporting and verification.

SASAC will provide a key role in the development of a national emissions trading system in China. Ensuring the 'buy-in' and support of SOE's for a price on GHG's will be a major challenge that will heavily fall upon SASAC to deliver.

⁹ [SASAC List of SOE's](#)

¹⁰ [SASAC: introduction of the European energy management system to the SOEs](#)

- **The China Securities Regulatory Commission (CSRC):** The CSRC is authorised by the State Council to regulate China’s securities¹¹ (or financial instruments) and futures markets.¹² Although China’s ETS pilots are currently not permitted to include futures trading and trades will be spot transactions only, many observers of the Chinese ETS believe futures will be included in a later stage of the Chinese ETS. Therefore, CSRC will likely play an important role of ensuring market oversight of the Chinese ETS in the future. Some market observers believe that during the next five-year plan, China will develop a ‘Carbon Regulatory Commission’ led by the the State Council.¹³

It has been reported that the CSRC has already started research into the feasibility of carbon allowance futures trading, and is expected to cooperate with the NDRC to establish a supervisory and regulatory system for carbon trading.¹⁴

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- [2] [Main functions of the NDRC](#) (The NDRC)
- [3] [SASAC: introduction of the European energy management system to the SOEs](#)
- [4] [Introduction of the CSRC](#) (The CSRC)
- [5] [Institutional Arrangement of Climate Finance Governance in China: Developing Climate Finance Policy Framework for China and Driving Policy Impact Report I](#) (The Climate Group)
- [6] [Shaping China’s Climate Finance Policy](#) (The Climate Group)

¹² The CSRC, [Introduction of the CSRC](#)

¹³ The Climate Group, [Institutional Arrangement of Climate Finance Governance in China: Developing Climate Finance Policy Framework for China and Driving Policy Impact Report I](#), page 31 and The Climate Group, [Shaping China’s Climate Finance Policy](#), page 4

¹⁴ [Disclosed by Liu Yunfeng \(Inspector from CSRC\) in the 3rd Annual Earth Temple Forum](#)

6. The Chinese Certified Emission Reduction (CCER)

On June 13 2012, the NDRC released the “Interim Measures on China’s Voluntary Emissions Trading”¹⁵. Although the title of this interim measure mentions the term “voluntary emissions trading”, it means offsetting carbon emissions voluntarily by using credits producing from certified projects. These interim measures will – in theory – assist the seven mandatory ETS pilots in China by offering an offset mechanism in addition to their respective local allowance unit.

These interim measures will not be applied in the 7 pilots, unless they are locally approved by the DRC in each pilot ETS. Once each pilot ETS allows the implementation of the interim CCER measures, CCERs can be used to offset companies’ actual emissions (based on the offset limit set by each pilot). As noted in the summary table (Table 1), at the beginning of this report, all of the pilots will allow CCER offsets in their respective systems but the limit on offset use in some pilots remains unclear at the time of writing.

The below is a table that is to show the quantity limit of using CCER in each ETS pilot. X% means the use of the CCER cannot exceed the X% of the allocated allowances in each pilot. The methodology to determine the level of offset use in each pilot is undefined.

Beijing	Chongqing	Guangdong	Hubei	Shanghai	Shenzhen	Tianjin
TBD	TBD	10%	10% for new entrants*	5%	TBD	10%
			15% for pilot ETS participants			

*Any entity that joins the ETS after the ‘launch’ of the pilot ETS.

The official document (in Chinese) outlining the CCER can be viewed [here](#).

- **Credit type:** China CER: ‘CCER.’
- **Project types:** NDRC will approve all methodologies, which will be based off of the CDM. The emission reductions can come from all 6 of the approved greenhouse gases under the UNFCCC.
- **Project criteria:** The project must meet at least 1 of the following criteria:
 - (a) CCER projects that utilize a methodology registered with the NDRC;
 - (b) CDM projects approved by the NDRC but not yet registered with the United Nations CDM Executive Board;

¹⁵ The NDRC, [Interim Measures on China’s Voluntary Emissions Trading \(in Chinese\)](#)

- (c) CDM projects approved by the NDRC which produced emission reductions before registration with the United Nations CDM Executive Board; or
 - (d) CDM projects registered with the United Nations CDM Executive Board not having yet issued any CERs.
- **Participation:** Domestic and foreign entities registered in China, including corporations, not-for-profit organizations, and individuals.
 - **Regulatory Authority:** the NDRC is the sole authority to manage these measures.
 - **Trading Platforms:** The NDRC has approved 5 exchanges to trade CCERs:
 1. Beijing Emissions Exchange,
 2. Tianjin Climate Exchange,
 3. Shanghai Environment and Energy Exchange,
 4. Guangzhou Emissions Exchange, and
 5. Shenzhen Emissions Exchange
 - **Verification and Certification:** As of now, the [China Quality Certification Centre](#)¹⁶ and the [CEPREI Certification Body](#)¹⁷ are the designated institutions of certifying and verifying CCERs in China.
 - **Registry Management:** CCERs must be registered in the National Registry system (NRS) and be purchased through the designated approved trading platforms (the exchanges). CCERs are required to be cancelled in the NRS after purchase or use (offset).
 - **Trading process:**

**The project must first meet the NDRC's methodology criteria before it can be submitted for approval (similar to the CDM)*

- (a) Submit CCER project to local DRC (including the Project Design Document (PDD) and validation report or directly to the NDRC (in the case of national SOE's)
- (b) Once project is approved by NDRC, list project on a national registry (to be defined) along with its certification report (to be defined).
- (c) Trade CCERs on an exchange in China approved by the NDRC to trade CCERs and retire.

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References:

- [1] [Interim Measures on China's Voluntary Emissions Trading](#) (The NDRC)
- [2] [NDRC authorises the China Quality Certification Centre to certify and verify the voluntary emissions reduction projects](#) (The NDRC)
- [3] [NDRC authorises the CEPREI Certification Body to certify and verify the voluntary emissions reduction projects](#) (The NDRC)

¹⁶ The NDRC, [NDRC authorises the China Quality Certification Centre to certify and verify the voluntary emissions reduction projects](#)

¹⁷ The NDRC, [NDRC authorises the CEPREI Certification Body to certify and verify the voluntary emissions reduction projects](#)

[4] [Guidelines on the certification and verification of voluntary GHG emissions reduction projects](#) (The NDRC)

7. Voluntary Emissions Trading in China: A Quick Overview

This section will introduce the standards and volumes of voluntary emissions trading in China. The quantifiable level of data for voluntary emissions transactions in China is exceptionally low, therefore information in this section does not provide the ‘full picture’ of information and dynamics of the Chinese voluntary carbon market.

This section is divided by each voluntary standard currently employed in China. Whilst we recognize the vast majority of emissions trading in China to date has been via the CDM, we do not include a chapter on the CDM in China because there are already a significant number of excellently written reports on China’s experience with the CDM. For recommendations of those, please contact the author!

Voluntary Carbon Standards

- **Verified Carbon Standard (VCS):** The VCS is the world’s most widely used carbon accounting standard. Any emission reduction from a VCS project earns a ‘VCU.’ The total transacted volume of VCUs in 2012 was over 43 million, an uptick from 41 million in 2011.¹⁸ Of the 43 Mt transacted in 2013, approximately 1.6 million VCU’s have been issued from Chinese projects. In total, more than 35 million VCUs have been issued in China. Over 3 million VCU’s have been retired from Chinese projects since the start of 2013, with more than 12 million in total.¹⁹
- **Gold Standard (GS):** The GS certifies renewable energy, energy efficiency, waste management and land use & forest carbon offset projects with a distinct methodology process that takes into account additional environmental and social benefits. In 2012, voluntary offset buyers contracted a total volume of 10 MtCO₂e from GS voluntary projects around the world. Data on China Gold Standard projects was difficult to obtain at the time of writing.

The Market Environmental Registry includes detailed information about registered projects and issued VCUs. Detailed information can be found [here](#).

The APX VCS Registry also provides detailed information on registered projects and issued VCUs. Detailed information can be found [here](#).

¹⁸ Ecosystem Marketplace, Bloomberg, Manoeuvring the Mosaic: State of the voluntary carbon market 2013, Chapter 3 Market Infrastructure: Standards and Registries.

¹⁹ Data in China are from the VCS website [here](#)

- **Panda Standard (PS)**: In December 2009, the “Panda Standard” was launched at COP 15 in Copenhagen. It is the first independent voluntary carbon standard in China. This standard was a result from the collaboration between the China Beijing Environment Exchange (CBEEEX) and the BlueNext Exchange (now closed). The PS provides offset requirements for developing credible projects in the fields of agriculture, forestry and other land use activities (AFOLU) specifically in China. At the time of writing however, NDRC-approved methodologies do not cover forestry and land use. Currently, the PS is in the process of seeking the NDRC’s approval of their methodologies to be eligible to generate CCERs.²⁰Details of the PS for AFOLU can be found [here](#). The market share of the PS in 2012 can be found [here](#).

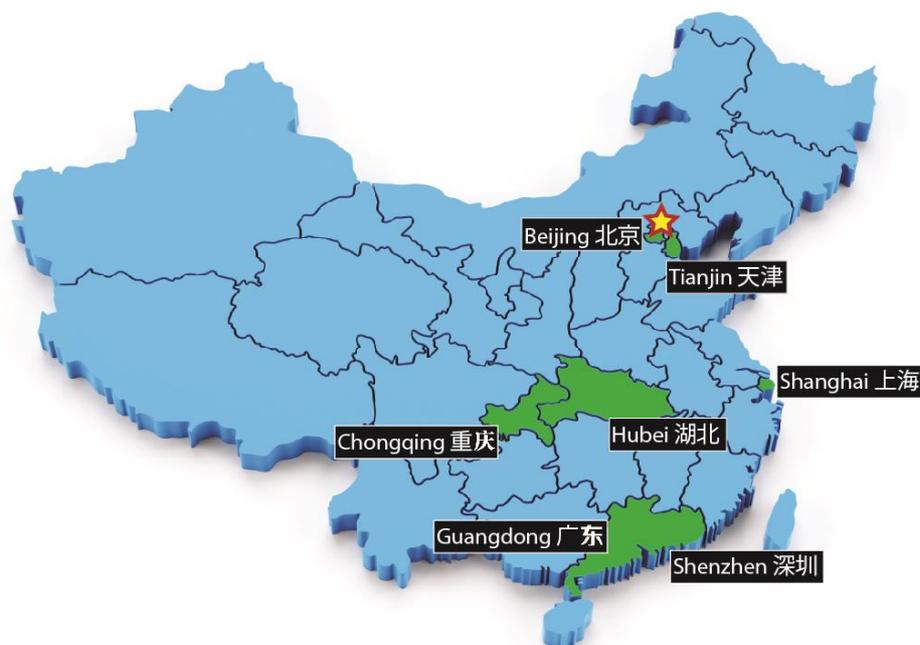
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- [1] [Introduction of the Panda Standard](#) (PS)
- [2] [Verified Carbon Standard](#) (VCS)
- [3] [Gold Standard](#) (GS)
- [4] [Chicago Climate Exchange](#) (CCX)
- [5] [Panda Standard](#) (PS)
- [6] [China's Carbon Emissions Traders Await Offset Demand](#) (Ecosystem Marketplace)
- [7] [Manoeuvring the Mosaic: State of the voluntary carbon market 2013](#) (Ecosystem Marketplace & Bloomberg)

²⁰ Daphne Yin, Ecosystem Marketplace, [China's Carbon Emissions Traders Await Offset Demand](#)

8. “Cheat Sheet:” A Guide to the Chinese Pilots

8.1 Beijing Emissions Trading System Pilot



Draft Rules for the Beijing ETS pilot were released in the spring of 2012.

- **Participation:** Mandatory participation for at least 435 companies (it is expected that eventually 600 will join) with emissions above **10,000 tonnes on average per year during the 2009-2011 period**. Emissions from these companies currently cover 50% of the total GHG emissions in Beijing. Voluntary participation is encouraged through purchasing CCERs.
- **Coverage:** The Beijing ETS pilot covers both direct and indirect CO₂ emissions. Direct emissions stem from electricity generation and heating. Indirect emissions stem from manufacturing and public buildings.
- **Allocation Methods:** Allowances are allocated free of charge or by auctioning. The **allocation of allowances** will be based on different industries’ (mainly thermal energy, electricity, manufacturing and large scale public construction) emission profiles, and **will be based on the verified annual emission reporting by participating companies**. Permit’s for 2013 will be **allocated for free** basing on the emission levels in the 2009-2011 period; permits for 2014 and 2015 will be based on the previous year’s accordingly. From 2014, allowances are required to be allocated before May every year.
- **Trading Platform:** **Beijing Environment Exchange** is the trading platform for

allowances in the Beijing ETS.

- **Timing:** The scheme will start in 2013; by which time market regulation and servicing mechanisms including identifying third-party verifiers and allowance allocation will be concluded.
- **Rules:** Detailed rules on each process of transaction, information disclosure, as well as violation of fines will be specified in a formal regulation document (tbd). Draft Measures on the Beijing ETS Pilot will be publicly released in the future.
- **Verifiers list:** The Beijing DRC has announced that [15 companies](#) have obtained verification qualification in June 2013. 117 persons from these companies are registered by the Beijing DRC as qualified verifiers.
- **Linking:** International communication and cooperation for experience sharing is encouraged and funding support from domestic and foreign sources are welcomed in order to support ETS participants.

In a separate document, the Beijing DRC included the following proposal on ‘industry-specific’ alliances:

- **Major emitters’ alliance:** consists of corporations that are mandated to be part of an ETS according to the draft rules, currently has 10 voluntary members so far. Major functions of this alliance include bridging the private sector and the government by providing suggestions and advisory opinions for policy making, promoting self-regulation capacity building, as well as experience and knowledge sharing among members.
- **Green financial organization’s alliance:** consists of over 10 Chinese banks that “understand carbon financing and the carbon market and keen on participating”. Major functions include providing efficient settlement services, forming municipal ETS financial plans, supporting carbon trading, providing loans for participating emitters, developing financial products and offering advices for the financial side.
- **Alliance for consultants and verifiers:** includes both Chinese and foreign consulting agencies and third-party verifiers. Aims at providing policy suggestions, developing methodologies and instruments under the municipal ETS, and providing consulting service for market participants.

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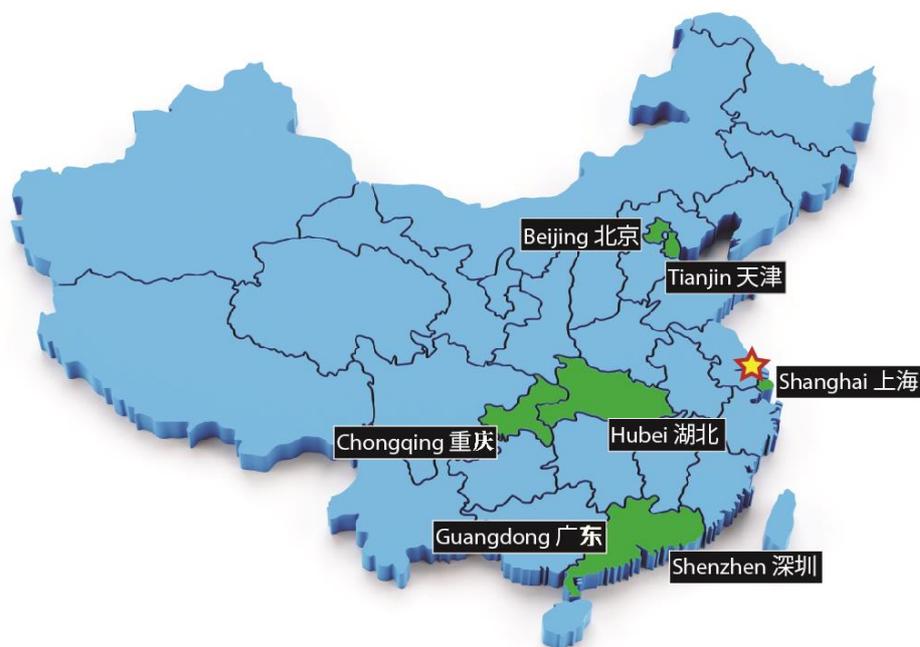
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- [2] [Name list of third-party verifiers in Beijing ETS pilot](#) (Beijing DRC)
- [3] [Beijing DRC authorized Beijing Environment Exchange to establish electronic trading platform](#) (Beijing DRC)
- [3] [Beijing Development and Reform Commission \(DRC\) Draft Emissions Guidelines](#)

[4] [Beijing releases draft rules for emissions trading scheme](#) (Point Carbon, accessed via subscription on March 29, 2012)

[5] [435 companies are included into Beijing Emissions Trading Pilot](#) (News Xinhua)

8.2 Shanghai Emissions Trading System Pilot



This information is based on the [Shanghai Draft Rules for Emissions Trading Guidelines first published in 2012 and the Shanghai's Draft Measures on Emissions Trading Pilot](#) in the summer of 2013. The Draft Rules are the working plan for Shanghai's government on establishing an ETS pilot between 2013 and 2015. The draft rules will need to be reviewed by other agencies in the Shanghai government and go through a stakeholder consultation round before being finalized.

- **Participation:** Participation for industries located within the Shanghai municipality annually emitting CO₂ of more than 20,000 tons during any year between 2010 and 2011 (including both direct and indirect emissions), as well as those non- industrial firms in aviation, ports, airports, railways, commercial enterprises, hotels and financial institutions that are emitting CO₂ annually of more 10,000 tons during any year between 2010 and 2011.
- **Trading:** Trading will include **direct and indirect CO₂ emission rights** and “verified cap and trade permit” for voluntary participants. Both direct and indirect emissions will be covered. Direct emissions are from energy-related activity and industry production. Indirect emissions stem from purchased electricity and heating power.²¹

²¹ Article 2 of [the Shanghai's Draft Measures on Emissions Trading Pilot](#)

Trading will take place in a designated trading platform at the **Shanghai Environment Energy Exchange (the Exchange)**. The Exchange will establish trading types, auction procedures, purchase contracts, and the level of transaction fees. All of these will be submitted to the Shanghai DRC for approval.

- **Sector Coverage:** Steel, petrol, chemicals, ferrous metals, power, construction materials, textiles, paper-making, rubber and chemical fibers industries. Sectors not covered during this period, but emitting over 10,000 tons annually should establish a carbon emissions reporting mechanism to prepare for participation at a later date. A full list of companies/entities covered by the ETS will be made available at a later date.
- **Banking:** Covered entities will not be allowed to receive forward allowances, but are permitted to bank unused allowances from the previous year. After an entity surrenders its allowances into the registry system, surplus allowances can be banked for future use.²²
- **Allowances:** Pilot enterprises will receive a carbon emission quota/allowances based on emissions during the period from 2009 to 2011 and begin management of those allowances, then receive a “carbon emissions inspection,” and then assume “carbon emissions control responsibilities” according to the carbon emission reporting mechanism. Interestingly, allowances will be awarded in the future based on industry-specific growth patterns-meaning that increasing caps, rather than the declining, absolute caps seen in ETSs in Europe and elsewhere will be created.

One allowance in Shanghai ETS pilot is called **SHEA (Shanghai Emissions Allowance)**, meaning to allow releasing 1 tonne of CO₂. Covered entities will need to surrender their allowances to the registry system between 1 June and 31 June each year.²³

- **Allocation:** The allowances for the entire period from 2013-2015 will be allocated all at once. For those sectors that have a ‘clear and standardized emission record’, benchmarking could be adopted (to be confirmed). **During the pilot ETS, the primary allowances will be allocated for free.** If needed, an allowance auction may take place.
- **Financials:** Shanghai is studying how to include institutional investors to participate in the ETS at a ‘suitable time’.
- **Offsets:** GHG offsets verified by the national or local government will be included. At present, the Shanghai DRC is actively exploring ‘innovative products’ related to carbon emissions trading. China Certified Emissions Reductions (CCERs) can be used

²² Ibid, Article 17.2

²³ Ibid, Article 17.1

to offset actual emissions in the place of allowances. The amount of CCERs cannot exceed 5 per cent of a covered entities total allocation amount.²⁴

- **MRV:** All covered entities in the Shanghai pilot ETS will have to set up an organisational carbon emissions monitoring, reporting and verification system. Entities will have to submit a report each year, and it must be verified by a 3rd party.

-Monitoring²⁵: Covered entities will need to make a monitoring plan for each subsequent year during the last 3 months of the previous year. For the year 2014 for example, an entity will need to make its monitoring plan during the period Oct.-Dec., 2013.

-Reporting²⁶: Covered entities will be required to complete a carbon reporting analysis by March 31 each year and submit this to the Shanghai DRC. For example, an entity will need to submit its 2013 reporting analysis by March 31, 2014.

-Verification²⁷: A verification report compiled by a 3rd party verifier will need to be submitted annually. All 3rd party verifiers must be domiciled in China.

-Administrative Check²⁸: The Shanghai DRC will perform an emissions check for each covered entity based on the emissions monitoring report from the company and the verification report from the 3rd verifier. The Shanghai DRC will then send its confirmation to each entity.

The Shanghai DRC will need to perform an additional layer of checks under the following circumstances:

- (1) If there is a gap of over 100,000 tonnes of CO₂ between the emissions report and the verification report;
- (2) If emissions amount from the current year are a 20% increase compared to the emissions amount from the previous year;
- (3) If a covered entity does not agree with the verification report and has data to prove said report is not complete or wrong.

²⁴ Ibid, Article 18

²⁵ Ibid, Article 7

²⁶ Ibid, Article 8

²⁷ Ibid, Article 9 and Article 22

²⁸ Ibid, Article 10

- **Post-2015 Trading:** According to the draft guidelines, the Shanghai DRC will conduct an overall assessment of the pilot's experience and prepare for a national ETS after 2015.
- **Governing Agency:** The Shanghai Municipal government will set up a leading working group, to manage the overall pilot ETS design and execution. It will be led by the deputy mayor that is in charge of environmental issues, and will be composed of members from the Shanghai DRC, Shanghai City's Economic Information Bureau, City's Commerce Bureau, City's Finance Bureau, City's Construction and Transportation Bureau, City's State Assets Bureau, City's Statistic Bureau, City's Tourism Bureau, City's Ferry and Ports Bureau, City's Quality Control Bureau, City's Government and Law Office, and the City's Finance Working Office.
The Shanghai DRC is the competent authority to implement the emissions trading pilot.²⁹
- **Linkage:** The Shanghai ETS is encouraged to link with other ETS pilot³⁰, however provisions to link are not included in the draft rules.
- **Registry:** The Shanghai DRC will make an allocation plan and issue allowances to covered entities via a registry system.³¹
- **Penalties for non-compliance:** Non-compliance of reporting: If an entity does not report its emissions, the Shanghai DRC will issue a penalty in the range of ¥10,000 to ¥30,000.³²

Non-compliance of verification: If an entity provides false information or hides information altogether during the verification process, the Shanghai DRC will issue a fine in the range of ¥10,000 to ¥30,000.³³ If an entity resists a verifier's work, or provides a fake verification report, the Shanghai DRC will issue a fine in the range of ¥30,000 to ¥50,000.³⁴

Non-compliance of surrendering allowances: If an entity cannot surrender enough allowances to the registry compared to its reduction target, the Shanghai DRC will order the entity to surrender the undue amount within a defined period; otherwise, the Shanghai DRC will issue a penalty in the range of ¥50,000 to ¥100,000.³⁵

In addition to the above, if an entity is found to be in non-compliance, the following will also occur:

²⁹ Ibid, Article 4

³⁰ Ibid, Article 16

³¹ Ibid, Article 6

³² Ibid, Article 30

³³ Ibid, Article 30

³⁴ Ibid, Article 31

³⁵ Ibid, Article 32

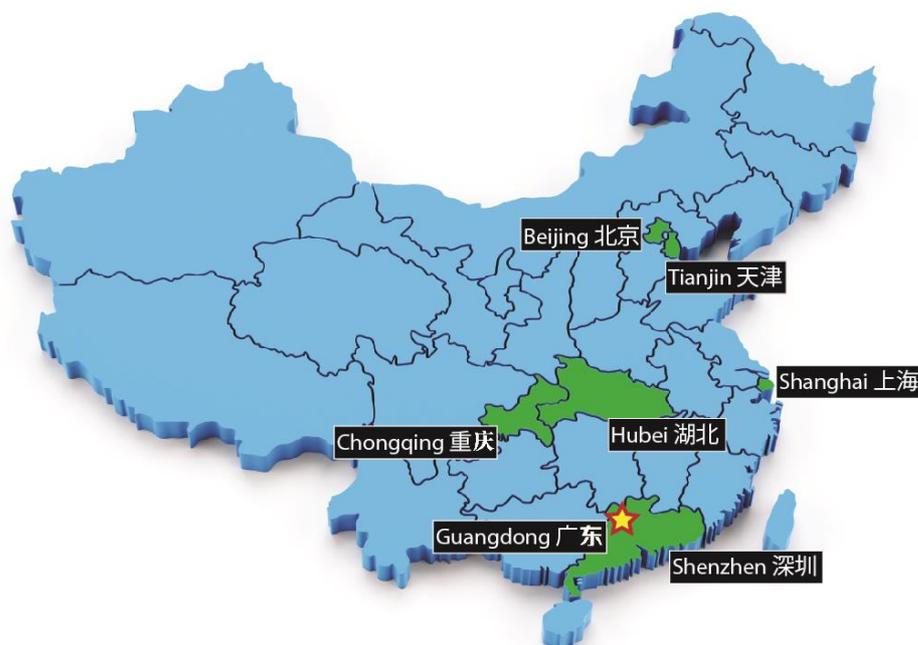
- (1)** The Shanghai DRC can refer the entity to the Shanghai Tax Bureau, Shanghai Finance Bureau and the Shanghai Industry and Commerce Bureau to start a credit investigation on the company itself.
- (2)** The Shanghai DRC can annul the company’s qualifications to gain future government financial support (subsidies), and annul its qualification to participate in a government competition as a ‘good performer’ in energy-saving and other emissions reduction policies.
- (3)** The Shanghai DRC and other relevant government Bureaus can ignore the application of new projects from the company, in effect revoking or not issuing construction or operating licenses for the company
- (4)** If the company is a State-Owned Enterprise (SOE), the non-compliance with the ETS violation will be included into the annual performance assessment system; this system is connected to the salary of the chief executive member (the CEO). In effect, the CEO of an SOE’s review will now include performance with the Shanghai ETS.

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References:

- [1] [The Shanghai Draft Rules for Emissions Trading Guidelines first published](#) (The Shanghai Government, 2012)
- [2] [The Shanghai’s Draft Measures on Emissions Trading Pilot](#) (The Shanghai Government, Summer 2013)

8.3 Guangdong Emissions Trading System Pilot



This **Guangdong Brief** incorporates recently released information on the ETS provided by the Legislative Affairs Office of the Guangdong Government ([available here](#)). These Draft Measures have already been submitted for approval to the Guangdong Government’s [Legal Affairs Office](#). At the time of writing, the Measures are currently being reviewed by the Guangdong government and subject to an on-going public stakeholder consultation.

As a result, this Brief is based on two documents:

- (1) Guangdong Draft Rules for Emissions Trading Guidelines, (released in September 2012), and**
- (2) Guangdong Draft Measures on Emissions Trading Pilot that (released in July, 2013).**

The ‘Draft Rules’ are essentially a work plan prepared by the Guangdong government and will be implemented by the Guangdong Development and Reform Commission (DRC). The Draft Rules are the result of an administrative order that is legally binding. However, the Draft Rules will become law only after several rounds of approval procedures by the Guangdong government. The process for any provincial economic policy becoming law begins first with an administrative policy document, and then stipulated into local law. It is expected that these Draft Rules and measures will be implemented before the end of 2013.

- **Emissions Target:** The cap for Guangdong’s ETS is still to be determined. But other

non-official [sources](#) have identified that Guangdong will cap its 2015 CO₂ emission levels at 660 million metric tons of CO₂--a nearly 30% increase from the 2010 level. The Guangdong DRC would like to meet its 19% reduction in carbon intensity by 2015 and cover 42% of the province's total energy consumption.

- **Cap Coverage:** Both direct and indirect emissions will be covered. Direct emissions will include sources from the fuel combustion and/or production of fuels. Indirect emissions will stem from purchased electricity (purchased electricity from other provinces) and heating power (Article 2).
- **Participants:** Participation for industries located within Guangdong annually emitting CO₂ of more than 20,000 tons in **any year** from 2011-2014 (including both direct and indirect emissions). 'Baseline years' can come from the years 2011, 2012, 2013, and 2014. Further details were not disclosed. There are 827 total firms identified that will be included in the pilot. Future legislation may include investment firms, or other non-state owned companies volunteering to 'opt-in' to the ETS. (Article 12).
- **Sector Coverage:** Power, cement, steel, ceramics, petrochemical, non-ferrous, plastics, paper as well as the transport and building sectors are to be included in the pilot.
- **Trading platform:** Trading will take place in a designated trading platform at the **Guangdong Carbon Emission Exchange**. Registry systems were not disclosed in the draft guideline announcement.
- **Competent Authority:** The Guangdong Development and Reform Commission (Guangdong DRC) is responsible for implementing and supervising the pilot ETS (Article 4).
- **Allowances:** The Guangdong DRC will issue allowances, but the list of companies to receive allowances has not yet been made publicly available. The Guangdong DRC will modify the amount of allowances allocated if there are substantial changes in the emissions inventory of the province (e.g.-ETS regulated companies halt production, etc.). (Article 5 and 6).
- **Allocation method:** According to the draft legislation, allowances will be allocated via a combination of free allocation and purchasing. Allowances are to be allocated according to historical emissions and the baseline of the sectoral production capacity. (Article 7)
- **Banking and borrowing:** Borrowing is not allowed. At the end of implementation period, surplus allowances can be banked for the future use, after permission from the Guangdong DRC is granted (Article 8).
- **Use of CCERs:** Guangdong will allow certified projects based on China Certified Emissions Reductions (CCER). Forest carbon projects will also be allowed, but details are unclear. Companies can acquire CCERs by registered CCER that can produce CCERs.
One CCER can be used to offset one tonne of CO₂. Companies can use up to 10% of their annual allowance total with CCERs (Article 9).

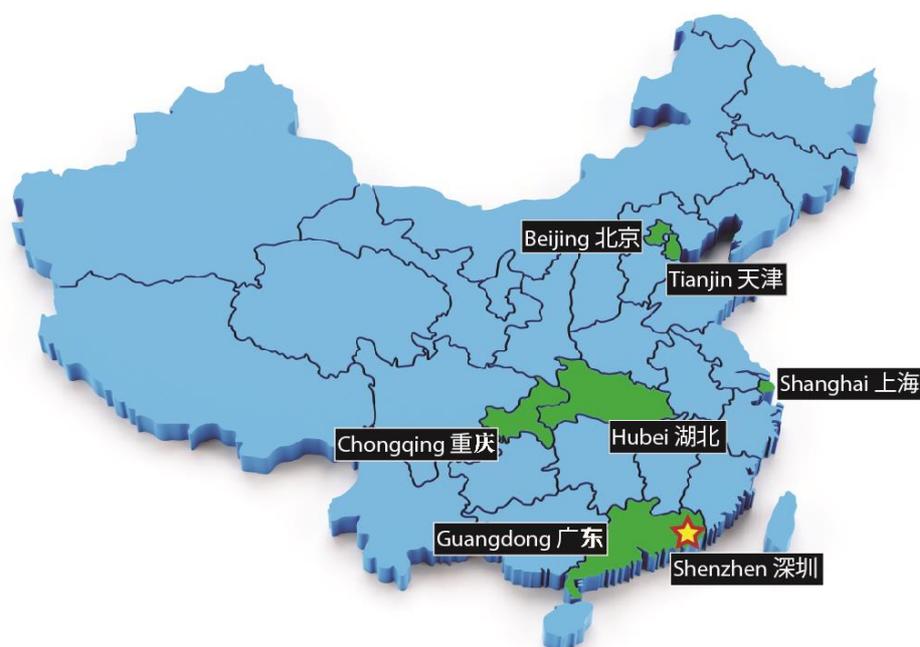
- **New projects (installations/facilities):** New projects can acquire allowances by free allocation and purchase, proportionally (Article 10). Firms can acquire allowances free of charge or by ‘purchasing from the government,’ which is also referred to as ‘compensated-use’ (有偿使用) and is found in other aspects of Chinese industrial policy. The literal translated of compensated use means that companies pay money to the government to obtain the rights or authorization to carry out an activity.
- **MRV:** All industries included in the Guangdong pilot ETS will have to complete the ‘Enterprise Guidelines on Carbon Emissions Measurement’. The regulated firms must make a report on its annual carbon emissions and submit it to the Guangdong DRC after being verified by an independent verifier. Governing agency must give feedback on the submission. The 3rd party verifier must be established in Guangdong DRC (Article 11).
- **Carbon price:** The carbon price will be determined be market-driven. It will be tracked and monitored by the Guangdong DRC and the Guangdong Price-Controlling Bureau (Article 14).
- **Public access to trading information:** The trading platform will publish the carbon price, trading transactions, and other important information on a frequent basis (Article 15).
- **Market Risk Prevention:** The Guangdong DRC will establish a system of preventing market risk. Explicit information is not clarified (Article 17).
- **Penalties:** The Guangdong DRC will enforce the ETS rules in a variety of different ways including:
 - (1) Send an order with legally binding force to the regulated enterprise to comply;
 - (2) For regulated enterprises which do not surrender enough allowances for their compliance, three times the market price of allowances will be levied against them;
 - (3) If the regulated enterprise resists the implementation of the ETS in its new installations or projects, the local Development and Reform Commission at the provincial and city level should not permit the launch or construction of said new projects. If the projects are close to commissioning when the ETS begins, the local DRC should not give any operating licenses until compliance is completed (Article 22).
- **Carbon Revenues:** Revenues from purchasing allowances from the Guangdong DRC during the pilot phase are included under the non-tax revenue management system (Article 24).
- **Linking:** There has been no official statement or indication that Guangdong would like its pilot ETS to Hubei (the only other provincial ETS) or any other ETS for that matter.
- **Rules and Guidelines:** Guidelines for carbon inventory for enterprises, allocation rules and transaction rules will be issued in the near future (Article 25).

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References:

- [1] [Measures on the Management and Trading of Carbon Emissions in Guangdong Province](#) (Guangdong Government)
- [2] [Guangdong switches exchange for new CO2 market](#)
- [3] [Guangdong has announced a CO2 cap of 660 million tonnes in 2015, a 30 per cent increase on its 2010 emissions](#) (Point Carbon)

8.4 Shenzhen Emissions Trading System Pilot



Information on the Shenzhen pilot ETS is drawn from the Shenzhen government's [Provision of Carbon Emissions Management in Shenzhen Special Economic Zone](#). The Shenzhen pilot ETS launched on June 17, 2013 and will last from June 2013-2015 (month tbc). It is expected that a nation-wide ETS will be unveiled in the next 5-year plan from 2016 onwards. This briefing aims to help market participants understand the basic design elements of the Shenzhen ETS, and includes trading rules and provisions to trade allowances in the Shenzhen ETS.

The Shenzhen ETS: An Overview

- **Emissions Target:** Shenzhen's 'cap' is intensity based, therefore the policy is to reduce carbon intensity in Shenzhen by 21% until 2015.
Compliance Participation: Any company that emits more than 5,000 tonnes/CO₂ per year (based on historical years from 2009-2011 (tbc)) will be obligated to participate in the pilot ETS. As a result of this threshold, 635 companies which emit 5,000 tonnes of CO₂ per year and 197 buildings for public use are included in the Shenzhen pilot ETS during 2013-2015. The names of the 635 companies have not yet been publicly released.
- **Non-Compliance Participation:** Participation in the ETS is also open for any financial institution from China or a foreign country. Financial institutions can apply and register as a member at the Shenzhen Exchange and open an account with their

trading platform and trade on the secondary market in the Shenzhen ETS. Voluntary participation is encouraged for enterprises not listed in the trial period. There is also legislation underway in Shenzhen to educate and help broaden the workforce in Shenzhen on carbon management and trading in order to ensure that installations and firms are able to participate in the ETS effectively.

- **Sector Coverage:** 26 sectors will have a mandatory compliance obligation; this covers various forms of industry in addition to power, gas and water supply.
- **Trading:** Trading will take place in a designated trading platform at the **China Shenzhen Emissions Exchange**. Only spot transactions are under consideration in the ETS as of now, meaning futures contracts are not yet allowed. On the first day of trading (June 18), 21,112 tonnes of carbon dioxides were bought, with a total value of ¥613,236 (€77,800).
- **Price:** Shenzhen's ETS price will be market-driven. There is no price floor or ceiling as of now. The Shenzhen municipal government will reserve some credits from auctioning, as a form of flexibility mechanism if needed.
- **Banking:** Banking allowances from one year to the next are allowed during the first trading period (2013-2015).
- **Allowances:** Allowances will be pre-allocated for free and one-off to sectors listed in the first trial period 2013-2015. Starting from 2014, allowance allocation will be confirmed based on the production capacity of companies in the previous year. Auctioning will be used as a complementary allocation method. All allocated allowances cannot be banked after the end of the 2015 calendar year. Approximately, 10 million allowances have already been allocated to companies facing a compliance obligation.
- **Offsets:** Shenzhen will allow certified project based reductions such as the CCER, and the available quantity of CCERs will be 'limited according to the market capacity.'
- **MRV:** Shenzhen's GHG Monitoring and Reporting Regulation and Guidelines³⁶ are publicly available and cover the following: quantification and reporting of GHG's, GHG verification. ETS participants will be required to submit a carbon emissions report to the Shenzhen government every year. The report will need to be verified by an independent third-party verifier. The Shenzhen government has already established a 'supervision system' for third-party verification institutions. As of now, no foreign verification entities have been able to provide verification services in the Shenzhen ETS.
- **Competent Authority:** The Shenzhen Development and Reform Commission (Shenzhen DRC) will administer the Shenzhen ETS.
- **Non-compliance penalties:** Businesses that face a compliance obligation that do not participate will face a penalty of 3x times the market price of carbon credits for the each tonne of CO₂ included in their specific allocation.
- **Price range:** The Shenzhen carbon price reached ¥70 (\$11.50) on 4 September 2013³⁷, 3 times the amount from the opening day of trading on June 18 (¥28- ¥30 /\$4.57- \$4.89).³⁸ During August, there was a reported price of ¥43, which was largely

³⁶ [Specification with Guidance for Quantification and Reporting of the Organization's Greenhouse Gas Emissions](#), published on 11 June 2012

[Specification with Guideline for Quantification and Reporting of Building Greenhouse Gas Emission \(Interim\)](#), published on 20 April 2013

[Specification with Guidance for Verification of Building Greenhouse Gas Emission \(Interim\)](#), published on 20 April 2013

³⁷ Point Carbon, 05 September 2013, [Shenzhen carbon price hits \\$11.50, nearly twice that of EU's](#)

³⁸ [Point Carbon, 18 June 2013, First Shenzhen CO₂ permits trade at 28-30 RMB](#)

driven by speculators who have opened non-compliance accounts on the Shenzhen Emissions Exchange.

Trading Rules and Procedures on the Shenzhen Emissions Exchange:

1. **Initial registration:** Allowances are issued by the Shenzhen DRC and registered in the Shenzhen registry system without more application. CCERs will be issued by the NDRC and registered in the Shenzhen registry system only after a project-developer submits an application to the Shenzhen DRC for a CCER project to be listed on the registry.
2. **Account management:** The seller should move the allowances from its holding account to trading account one trading day before the purchase day. Both the holding account and trading account belongs to the seller and is stored in the Shenzhen registry.
3. **Exchange membership:** participants must be a member of the Shenzhen Emissions Exchange, and can include investors and individuals who open an account in the Shenzhen Emissions Exchange. Membership is open to brokers, institutions, individuals, and not-for-profit organizations³⁹
 - a) **'Broker'** membership represents investors (companies or individual investors). Investors will need to trade on the Exchange through a broker-but not pay any fees to the Exchange. This type membership is for a broker-established transaction.
 - b) **'Institutional'** membership refers to companies that are covered by the cap, as well as companies that want to open an account on the Exchange without the use of a broker—but are not included under the cap. If the company is included in the Shenzhen ETS cap, membership fees on the Exchange are waived. For companies not included under the cap, a first-time fee of ¥50,000 is required to become a member, and pay ¥30,000 annually.
 - c) **'Individual'** membership refers to natural persons that open an account individually--separate from an institution or organization. The Exchange rules do not clarify whether foreigners can open an account on the exchange at this time. Chinese citizens should pay first-time fee of ¥2,000 to become a member, and pay ¥1,000 annually to keep the membership.
 - d) **'Not-for-profit'** membership⁴⁰ refers to the social organisations and individual citizens who want to voluntarily buy allowances or CCERs, rather than selling any units through the Exchange. All of the units account holders of this class buy can only be used to offset their own GHG emissions. Voluntary members do not need to pay any membership fee.
 - e) **'Service membership'**⁴¹ refers to consultancy membership, finance membership and technological membership. Service members do not need to participate in the ETS, but provide specific services after they are qualified with a service membership on the Shenzhen Emissions Exchange.For all of the above membership types, participants will use a 'trading computing system' administered by the Shenzhen Exchange for its clients to purchase allowances and the CCERs.
4. **Unit Identification:** All trades will be spot transactions only, each unit of allowances and CCERs will have serial number for identification purposes. An identity authentication,

³⁹ [Trading Guidelines of Shenzhen Emissions Exchange](#)

⁴⁰ [Article 10, Management Rules on Membership of Shenzhen Emissions Exchange \(Interim\)](#)

⁴¹ Ibid. Article 15-18

also named a 'real-name registry system' is applied throughout the whole transaction process. This real-name registry system requires the company or individuals to use their real identity information to open account in Shenzhen Emissions Exchange and trade.

5. **Trading Orders:** Before sending a trading order to the computing system, a buyer is required to check that it has sufficient funds in its Exchange account. At the same time, the seller is required to ensure they have enough units in their account before executing a trade. The trading computing system will check the authenticity of the trading units' information and financial information and then automatically confirm that the transaction can be executed. Otherwise, the order will be automatically rejected by the computing trading system.

6. **Trading schedule:** Trading will be allowed from Monday to Friday each week, except on national mandatory holidays. Trading hours will last from 9:30 to 11:30 and from 13:00 to 15:00.

7. **Delivery system:** T+1 delivery system

8. **Transaction types:** electronic auction, fixed-price trade and block trade.

a) An 'electronic auction' means that the trading participant authorises the Shenzhen Emissions Exchange to find the bidder on its behalf via an electronic auctioning system. Once the units are publicly listed by the Exchange, a 'commission agreement' is formed between the trading participants and the Exchange. Within a specific period, at least two potential bidders can provide their prices through the computing trading system.

b) 'Fixed-price trade' means a trading participant (either a buyer or a seller) sets the fixed price and sends a notification to the Exchange to publish the offer. Then other potential participant (a seller or buyer) applies to the Exchange and takes the offer. The earliest taker acquires the offer.

Offer providers should provide information to the Exchange, including their account number, the type of trading unit, amount offered, and the offer price. The off-taker should provide information to the Exchange, including the foregoing items and the serial number of the offer.

(3) 'Block trades' require at least 10,000 tonnes in the offer.

9. **Market Oversight General Rules:** The Shenzhen Emissions Exchange must supervise the trading market under five situations, including (1) insider dealing and market manipulation and other behaviour violating the law; (2) behaviour that sets limitations on the trading time, trading amount, and trading types; (3) abnormal trading behaviour that can impact the carbon price or trading amount (see below); (4) abnormal circumstances that affect the carbon price or trading amount;

10. **Market Oversight in abnormal situations:** The Exchange will need to interfere in the market during the following abnormal circumstances:

a. A huge amount of trading units or continuous trading before the confidential information that can affect the carbon price is released;

b. Frequent reserve trading involving huge amount of trading units or conducted frequently among at least two accounts;

c. Large amounts of trading units are bought at a higher price and sold at a lower price frequently;

d. Fraudulent information or published documents by service providers active in the Shenzhen ETS that could affect the carbon price in Shenzhen will be subject to the relevant Chinese regulations on market oversight.

e. Circumstances when the carbon price or trading amount is abnormal can include when the carbon price is continuously plummeting or soaring, or other situations when the Shenzhen Emissions Exchange considers the carbon price is abnormal.

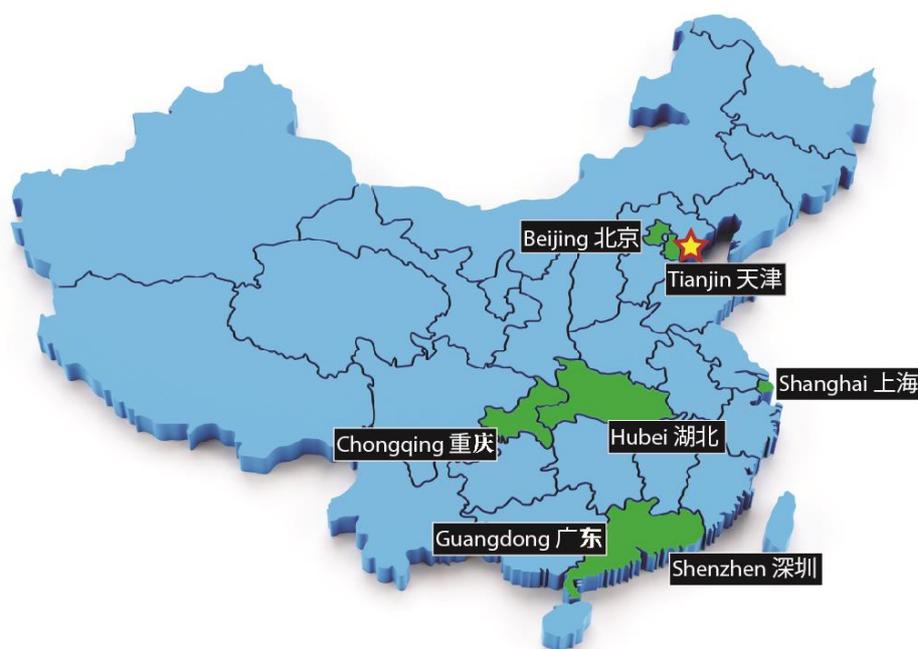
11. **Transaction disputes settlement:** if there is adequate evidence to show that participants violate any laws or regulations, the Shenzhen Emissions Exchange can terminate a transaction.

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References:

- [1] [Press Conference of Shenzhen Carbon Emissions Trading Pilot Program](#) (Shenzhen Development and Reform Commission)
- [2] [Provision of Carbon Emissions Management in Shenzhen Special Economic Zone](#) (Offsets and MRV are mentioned in this official document)
- [3] [8 transactions on the first day of Shenzhen emissions trading](#) (Xinhua News)
- [4] [Shenzhen Special Economic Zone ETS pilot launched](#) (Shenzhen Development and Reform Commission)
- [5] [Spot transaction rules on Shenzhen carbon trading, promulgation on June 2013](#) (Shenzhen Emissions Exchange)
- [6] [Management Rules on Membership of Shenzhen Emissions Exchange \(Interim\)](#) (Shenzhen Emissions Exchange)
- [7] [Specification with Guidance for Quantification and Reporting of the Organization's Greenhouse Gas Emissions](#) (Market Supervision Administration of Shenzhen)
- [8] [Specification with Guideline for Quantification and Reporting of Building Greenhouse Gas Emission \(Interim\)](#) (Market Supervision Administration of Shenzhen)
- [9] [Specification with Guidance for Verification of Building Greenhouse Gas Emission \(Interim\)](#) (Housing and Construction Bureau of Shenzhen)
- [10] [Point Carbon, 18 June 2013, First Shenzhen CO₂ permits trade at 28-30 RMB](#)
- [11] [Shenzhen carbon price hits \\$11.50, nearly twice that of EU's](#) (Point Carbon, 05 September 2013)

8.5 Tianjin Emissions Trading System Pilot



The Tianjin ETS information is drawn from [Tianjin’s draft rules for emissions trading guidelines](#) that were released in March, 2013 in Tianjin. Below are some key elements from the Tianjin Development and Reform Commission’s (DRC) proposed guidelines which will establish a pilot emissions trading system in the Tianjin municipality from 2013-2015:

- **Emissions Target:** The emissions cap will be determined for yearly for 2013, 14’ and 15.’ The cap has not yet been publicly stated, but the Tianjin DRC aims for a reduction in carbon intensity--which will be based on carbon intensity targets in the 12th five-year plan (17% reduction).
- **Participation:** Participation will be limited to industries located within the borders of the Tianjin Municipality that annually emit more than 20,000 tonnes of CO₂ in any year since 2009 (including both direct and indirect emissions). 130 companies are included into Tianjin ET pilot, which contribute 60% of the total carbon emissions of the city.⁴² Participation will be expanded to additional stationary sources in later stages (to be continued).
- **Sector Coverage:** Sectors covered in the 1st trial period are: iron and steel, chemicals, electricity, heat, petrochemical, oil and gas, mining, and ‘civil construction.’

⁴² BBC China, [Success or not: China’s Carbon Trading](#)

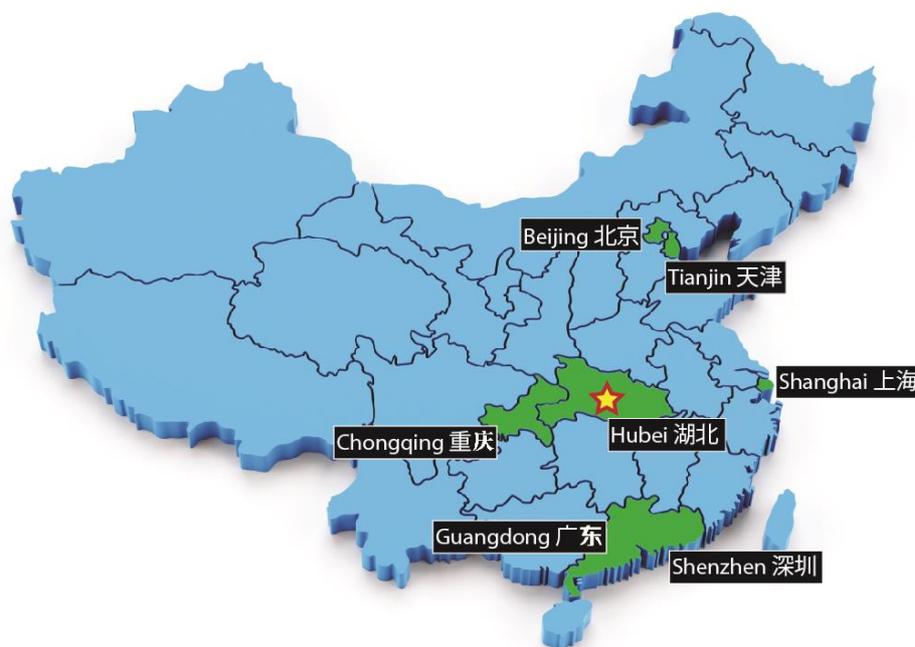
- **Trading:** Trading will take place in a designated trading platform at the Tianjin Climate Exchange. Registry systems will be built to manage the issuance, holding, transfer, cancellation, banking of allowances. The start date of trading has not yet been announced.
- **Banking:** To be determined
- **Allowances:** Allowances will be allocated to sectors listed in the 1st trial period for free each year. Auctioning of allowances will also be used as means of allocation.
- **Offsets:** Tianjin will allow certified project based reductions such as the CCER to be used by participating companies for compliance. Those industries can purchase CCER's for no more than 10% of their annual CO₂ emissions.
- **MRV:** All companies listed in the Tianjin pilot ETS will be required to complete the "Enterprise Guidelines on Carbon Emissions Measurement" form, create an enterprise emissions inventory and investigation systems, and understand the working process of 3rd party verifiers. Once these 3 steps are completed, each participating company will be required to submit a 3rd party emissions verification report to the Tianjin DRC. Penalties for non-compliance were not specified in the release of the draft rules.

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References:

- [1] [Tianjin DRC website](#) (Tianjin Development and Reform Commission)
- [2] [Tianjin's draft rules for emissions trading guidelines](#) (Tianjin People's Government)
- [3] [Tianjin's draft rules for emissions trading guidelines](#) (Tianjin DRC)

8.6 Hubei Emissions Trading System Pilot



The IETA Secretariat has prepared a briefing on the Hubei ETS pilot which draws upon the [“Hubei’s working plan for emissions trading pilot”](#) regulation that was released in February, 2013 by the Hubei provincial government (Hubei DRC). The plan aims at establishing a pilot carbon market in Hubei during the period 2013-2015.

- **Emissions Target:** the Hubei DRC aims for a reduction in carbon intensity--which will be based on carbon intensity targets in the 12th five-year plan (17% reduction). The cap is not clear at the time of writing.
- **Legal arrangements:** The measures published by the Hubei DRC are ‘interim’ and have to be formally approved.
- **ETS Participants:** Companies in Hubei that emit more than 60,000 tonnes of coal equivalent in any year between 2010 and 2011 will have a mandatory compliance obligation in the Hubei ETS. Additional participants will be added into the system in the future. ‘Voluntary participation’ is encouraged. However details of participating in the ETS remain unclear at the time of writing.
- **Trading Units:** The Hubei ETS pilot will reduce CO₂ only, and no other greenhouse gases during the pilot period. Allowances and CCERs representing 1 tonne of CO₂ will be traded.
- **Banking/Borrowing:** Spot trading is only allowed during the pilot, therefore futures transactions and banking/borrowing will be not be allowed.
- **Offsets:** ETS participants can offset up to 15% of their allocated emissions. New entrants will be allowed up to 10% of their allowances to be offset. CCERs will be the

only offset type available for allowance to offset swapping.

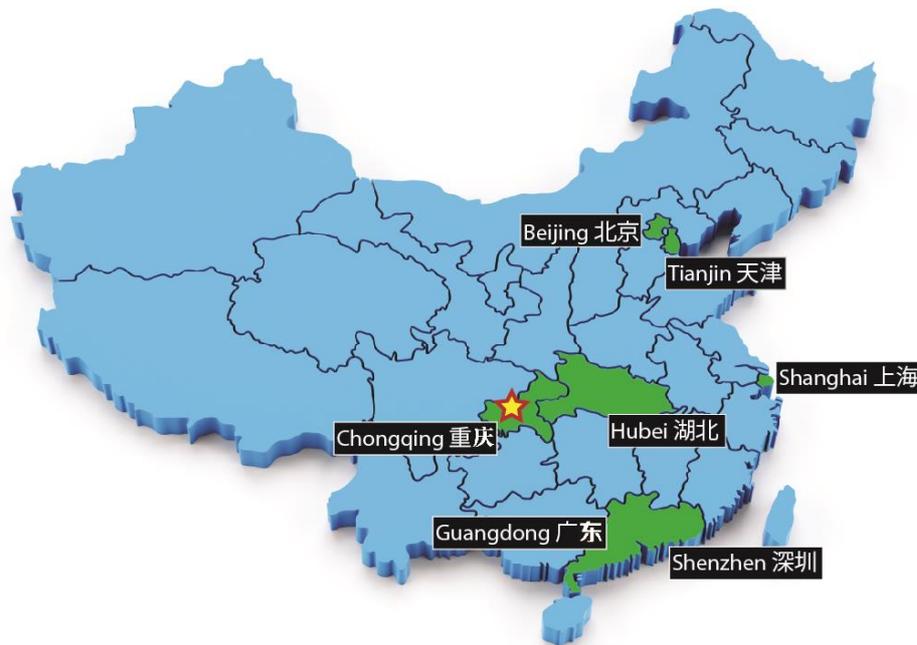
- **Trading Platform:** [Wuhan Optics Valley United Property Rights Exchange](#) is the designated trading platform of the Hubei ETS pilot.
- **Coverage:** The Hubei ETS pilot covers CO₂ emissions from fuel consumption, industry production and electricity generation. 153 companies from the following sectors will be included: iron and steel, chemicals, cement, automobile manufacturing, electricity, non-ferrous metals, glass, and paper.
- **Allocation:** Allowances will be issued for free before May 30 each year. The measures state that free allocation will end at a future designated date.
- **Banking and Borrowing:** banking and borrowing is not allowed during the pilot ETS stage.
- **Competent Authority:** The Hubei Provincial Development and Reform Commission (Hubei DRC).
- **Launch Date:** The Hubei ETS pilot will be launched in [the second half of 2013](#).
- **MRV:** All ETS participants that emit +8,000 tonnes of coal equivalent each year will be required to participate in the Hubei carbon monitoring system and will need to submit an emissions inventory report to the Hubei DRC by March 30 each year. All emissions for these participants will need to be verified by a 3rd-party verifier.
- **Penalties:** ETS participants that do not comply with MRV or allowance allocation procedures will face a penalty of 3x times the market price of the allowances for each tonne of CO₂.

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References:

- [1] [Interim Measures on Hubei ETS pilot](#)
- [2] [Hubei's working plan for emissions trading pilot](#) (Hubei Provincial Government Official Documents)

8.7 Chongqing Emissions Trading System Pilot



The Chongqing ETS information is drawn from the [Chongqing ETS pilot based on Chongqing's working plan for an emissions trading pilot](#). The working plan was released in September 2012 by the Chongqing provincial government. However, there remains a significant amount of vague or unclear information on the pilot ETS and its status at the time of writing. A more detailed working plan and governing framework was developed in April 2011, however, it has not yet been published.

- **Start Date:** 2014
- **Emissions Target:** The Chongqing ETS pilot aims to reduce carbon intensity by 17% below 2010 emission levels by 2015.⁴³
- **Sector Coverage:** 6 sectors of the Chongqing economy will be included in the pilot ETS: [electrolytic aluminium, ferroalloy, calcium carbide, caustic soda, cement, and steel](#). The petrochemical and power sectors are not included at the time of writing. Around 300 companies in Chongqing will face a compliance obligation during the pilot ETS.
- **Participation threshold:** Companies whose emissions are +20,000 tonnes of CO₂ per year will be obligated to participate in the ETS. It is expected that the Chongqing ETS pilot will cover 35%-40% of the city's overall emissions.⁴⁴

⁴³ Chongqing Development and Reform Commission, [Chongqing ETS pilot based on Chongqing Draft Rules for Emissions Trading Guidelines](#)

⁴⁴ Reuters Point Carbon, July 26 2013, [China's Chongqing to outline emission caps this year](#)

- **Emissions Inventory:** An emission inventory of the companies included in the Chongqing ETS will be ready at latest by August 2013.
- **Trading Platform:** [Chongqing United Assets and Equity Exchange](#) is the designated trading platform for the Chongqing ETS. The Chongqing Development and Reform Commission (Chongqing DRC) has already approved the Chongqing emissions trading platform and registry system. It is expected that the Exchange will be operational by the end of 2013.⁴⁵

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References:

- [1] [Chongqing ETS pilot based on Chongqing Draft Rules for Emissions Trading Guidelines](#) (Chongqing DRC)
- [2] [China's Chongqing to outline emission caps this year](#) (Reuters Point Carbon)
- [3] [Chongqing ETS pilot will be launched](#) (Xinhua News Agency)

⁴⁵ Xinhua News Agency, January 29 2013, [Chongqing ETS pilot probably launched will be launched](#)

8.8 Hangzhou Emissions Trading System



The Hangzhou ‘pilot ETS’ has recently been announced by the Hangzhou City Government. This briefing will outline the draft elements of the Hangzhou pilot ETS. Our resource is drawn from the [Hangzhou government’s Interim Measures on emissions trading](#) that was released by the People’s Government of Hangzhou City on June 19, 2013. The legal arrangements to solidify Hangzhou as a pilot ETS are still unclear, and so far the only rules covering this are provided by the Zhejiang provincial government. The National Development and Reform Commission (NDRC) has not yet provided formal endorsement of Hangzhou as a pilot ETS. Based on the rules provided by the Zhejiang government on the Hangzhou pilot ETS, we have provided a few key facts on the system design:

- **Emissions Target:** The emissions cap is to be determined. The ***energy consumption per unit of GDP in Hangzhou city is going to be reduced by 19.5 percent below 2010 levels by 2015.***
- **Participation:** Participation will be limited to the ***‘key energy consumption industries’*** located within the jurisdiction of Hangzhou city. ***865 companies*** have been appointed as the key energy consumption enterprises in 2013, whose energy consumption are produced by over 3,000 tonnes of coal/year. However, Actual greenhouse gas emissions of these 865 companies are not identified in the Zhejiang rules yet.
- **Sector Coverage:** To be determined
- **Emission rights/allowances:** Emission rights mean the total GHGs emissions

produced by energy consumption of the Energy industries ***within 1 year***. Emission rights/allowances will be calculated by the government, take into consideration the existing energy-saving programmes and renewable energy schemes that firms are participating in.

- **Trading:** Trading will take place in a designated trading platform at the ***Hangzhou emissions trading management platform***. A filing system of emission rights will be built for traders by the competent administrative authority responsible for energy-saving issues. This file system plays the role of a registry system, which manages the issuance, holding, transfer, cancellation of emission rights. The start date is not known yet.
- **Banking:** To be determined
- **Allowance Allocation:** Allocation method of the allowances is not determined. Allowances are withdrawn or bought back by the foregoing energy-saving administrative authority because of the closure of the enterprises.
- **Offsets:** to be determined
- **MRV:** No monitoring and reporting guideline is published. The key energy consumption enterprises shall report to the energy supervision centre at city level and provincial level. Energy supervision centre shall monitor and record the abnormal situation of energy consumption of the key energy consumption enterprises. The competent administrative authority of energy-saving shall summarise the state of art of the emissions trading in a report annually and makes it published.
- **Competent authority:** The Economic Information Commission (EIC) will take the leadership of implementing interim measures on Hangzhou pilot ETS.

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References:

- [1] [Hangzhou Government](#)
- [2] [Zhejiang Province Economic and Information Commission](#)
- [3] [Hangzhou Economic and Information Technology Commission](#)
- [4] [Environmental supervision centre](#)
- [5] [Hangzhou becomes China's eighth region to launch CO2 market, by Kathy Chen and Andrew Allan](#)



WHO WE ARE: IETA is the only cross-sector, cross-function business association supporting emissions trading and carbon finance that span the world's carbon markets. Members cover the full spectrum of major energy, manufacturing, commodities, finance, and service companies across the world.

WHERE WE ARE: IETA's headquarters are in Geneva. IETA has offices in Washington, Brussels, Toronto, and representation in San Francisco, Seoul, Tokyo and Sydney; IETA has close affiliations and networks that follow emissions markets, practices, trading, and finance and climate negotiations all over the world.

WHAT WE ARE: IETA is the voice of business world-wide on carbon pricing, carbon finance and emissions trading, commanding respect gained from over 10 years of leadership in negotiation, commercial and policy forums, starting from the birth of the carbon trading idea. The messages that IETA delivers come from the collective views of the business leaders forming its membership. Members' working groups are organized by geography and by issues - such as offset projects, market oversight, and emerging climate finance models.

