

ETS in China: Overview, technical designs and related laws

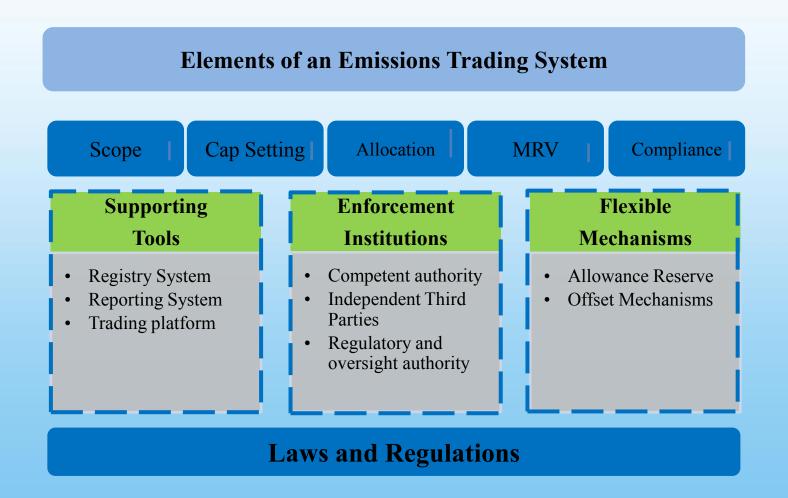
SinoCarbon Innovation & Investment Co.,Ltd.

The Sukosol Hotel, Bangkok, Thailand

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Framework and Architecture





Overall Approach

Top Down at National Level

- Voluntary Trading on Emission Reductions (CCER)
- National Registry System
- MRV Guidelines of Key Sectors
- National Carbon Market (Partnership for Market Readiness, PMR)

Bottom Up at Pilot Level

- Carbon Emission Trading Pilot Programmes in 2 provinces and 5 municipalities
- Accumulating experiences and to lay foundation for the national carbon market



Date	Progress	Details		
2012.6.13	Administrative Measures	Interim Measures for Managing Trading of Greenhouse Gas Voluntary Emission Reduction Trading		
2012.9.21	Project Submission Templates adopted	Application document for GHG voluntary emissions reduction projects and certified emission reduction of GHG voluntary emissions projects		
2012.10.9	Validation and verification rules adopted	Guidelines on Validation and Verification of Greenhouse Gas Voluntary Emissions Reduction Projects		
	 	China Beijing Environment Exchange, Tianjin Climate Exchange,		
2013.1.16	Eligible Trading Platforms Approved	Shanghai Environment and Energy Exchange, Guangzhou's China Emissions Exchange, and Shenzhen's China Emissions Exchange were		
2013.6.13	Independent third parties approved	China Quality Certification Centre (<i>CQC</i>) and Guangzhou <i>CEPREI</i> Certification Body were approved as validation agencies for GHG voluntary emission reduction trading. China Environmental United Certification Center Co., Ltd (<i>CEC</i>) was		
2013.9.2	i L	approved as validation agencies for GHG voluntary emission reduction		
2013.3.5	l I	trading		
2013.10.25	177 methodologies adopted	The second batch of 2 methodologies		
_ 2014_1_22 _	L	The third batch of 123 methodologies		
2013.10.24	Info-Platform	China Certified Emission Reduction Exchange Info-Platform		



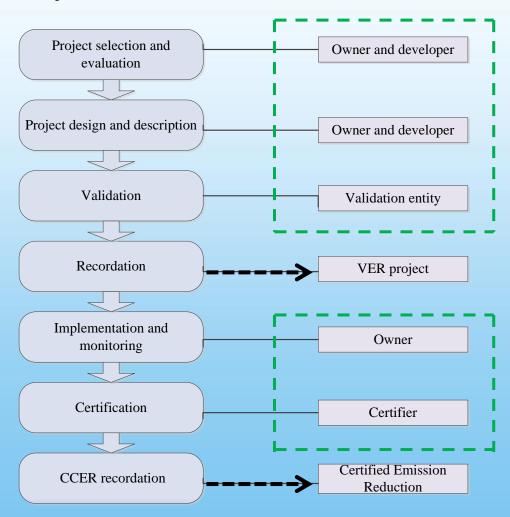
Eligibility Criteria

Projects constructed after Feb. 16, 2005,

- ① projects developed applying methodologies approved by NDRC
- 2 projects approved as CDM projects by NDRC but not registered at CDM Executive Board
- ③ projects approved as CDM projects by NDRC and emissions reduction generated before registration at CDM Executive Board
- 4 projects registered at CDM Executive Board, but CER issuance not happened

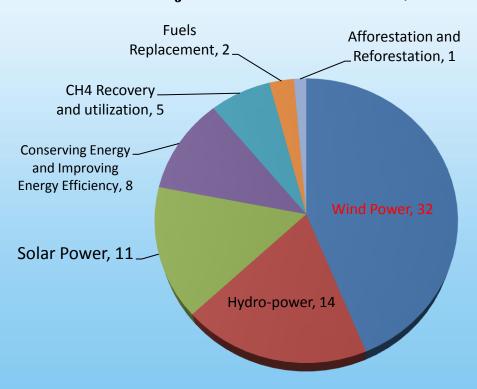


Project Circle





Projects under Validation(As of 2014/02/28)



- total 73 projects under validation are publicized on the Info-Platform, with total expected annual Emission reductions of 14,130,306tCO2e
- 57 new energy and renewable energy projects
- 38 projects have been registered at the UN CDM EB, and 21 projects produced emission reductions before registration



Progress at National Level----Registry

□ Supporting for both future National ETS and voluntary emissions reduction trading
 □ Cooperation projects between *NDRC and UNDP* □ Implantation Agency: *Tsinghua University, SCII, NCSC*

Progress

April 2013
completing design of technical aspects

July 2013, completing IT technical design

March 2014, Hardware bidding
Planned date of launch



Progress at National Level----MRV Guidelines

Oct. 2013, 1ST Batch of GHG MR Guidelines for 10 Sectors were released by NDRC.

Jan. 2014, Notification on the Establishment of GHG Reporting System for Key Enterprises by NDRC.

Development of guidelines for another 10 sectors are under development

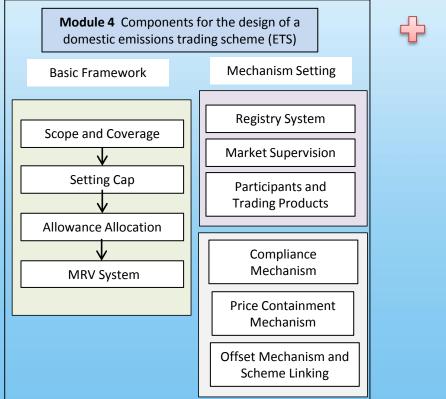
10 Sectors: *Power Generation, Power T&D*, Ceramics, Magnesium smelting, Electrolytic Aluminum, Iron & steel, Chemical, Flat Glass, cement, *civil aviation*.

- speed up to build the GHG MRV system at national, local and enterprise level
- Build the GHG emissions monitoring standard, and laid foundation for the national carbon market under development





Feb. 2013, *Proposal for Establishing a National Carbon Emissions Trading Scheme in China* was approved by PMR, China won \$8 million in funding.



Module 5: Study of Key problems on the Institution of China Emission

Trading System Involved in Central Enterprises Participants

Central Enterprises Policy Background

Research and Suggestions on Core Institution Factors of China ETS involved in Central Enterprises Participants

Module 6. Research on Key Points of Carbon Emission Trading in Chinese Electric Power Industry

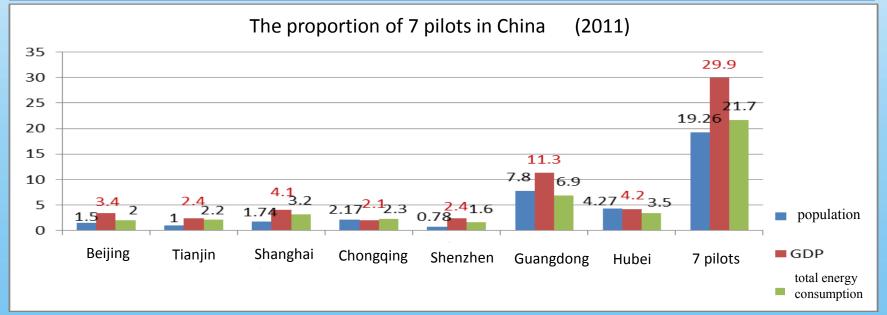
Back Ground

Elements Design of Supporting System on Carbon Emission Trading in Electric Power Industry



Progress at Pilot Level----Overview

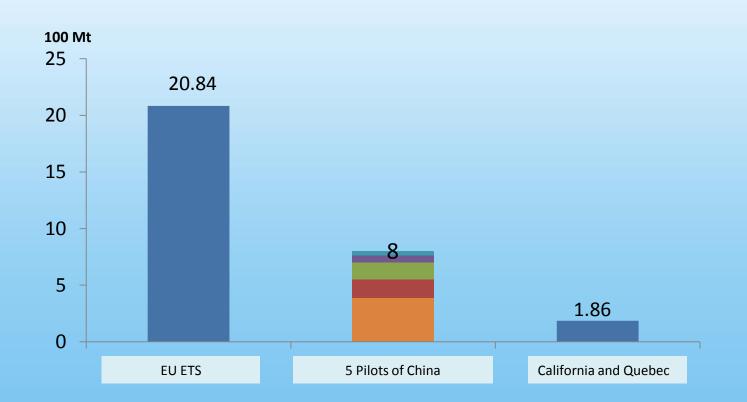
Pilots Contents	Beijing	Tianjin	Tianjin Shenzhen Guangdon		Chongqing	Hubei	Shanghai	
population (million)	20.19	13.55	10.47	105.05	29.19	57.58	23.47	
GDP (billion CNY)	1625.193	1130.728	1150.206	5321.028	1001.137	1963.226	1919.569	
total energy consumption (million tce)	69.9539	75.9845	54.306	241.3126	79.5112	123.2880	112.7048	





Progress at Pilot Level----Overview

- □ Total volume of 2013 allowances of 5 Pilots is *0.8 billion tons*
- Rank 2nd worldwide, behind EU ETS





Progress at Pilot Level----Legislation





Progress at Pilot Level----Coverage

Pilots	Covered sectors	Threshold	Covered entities
GI I	Industrial sectors(power, manufacturing, etc);	5000 tons	635
Shenzher	Building	10000/20000 square meters.	197
Ch an ah a	Industrial sectors(steel, chemical, petrochemical, power, etc)	ochemical, power, etc) 20000 tons	
Shangha	Non-industrial sectors(airlines, airports, ports, hotels, etc)	10000 tons	191
Beijing	Power, heat supply, cement, petrochemical, other industrial sectors, service	10000 tons	490
Guangdon	g Power, cement, petrochemical, steel	20000 tons	242
Tianjin	Power, heat supply, chemical, petrochemical, steel, extraction	20000 tons	114



Progress at Pilot Level----Allocation

	Cap (2013)	Allocation		
Shenzhen	33.2 M	benchmark		
Shanghai	160M	power, aviation, airport and port: benchmark Others: grandfathering		
Beijing Power, heat supply: Benchmark Others: grandfathering		· 11 2		
Guangdong 388M grinding): benchmark		CHP, petrochemical, steel(short process), cement(mining and other		
<i>Tianjin</i> 160M		Power, heat supply: Benchmark Others: grandfathering		



Progress at Pilot Level----Offsetting Rules

All pilots recognize CCER(China Certified Emission Reduction) as eligible offsetting credit

Pilots	Compliance Percentage	Local Restriction		
Shenzhen	10%	-		
Shanghai	5%	-		
Beijing	5%	≥50%		
Guangdong	10%	≥70%		
Tianjin	10%	-		



Progress at Pilot Level----Compliance Timeline

Pilots	Pilots Monitoring Report		Verification Report	Surrender	
Shenzhen	-	Mar-31	Apr-30	Jun-30	
Shanghai	Dec-31	Mar-31	Apr-30	From Jun-1 to Jun-30	
Beijing	-	Mar-20	Apr-5	Jun-15	
Guangdong	-	Mar-31	Apr-30	Jun-20	
Tianjin	Tianjin Nov-30		Apr-30	From Jun-1 to Jun-30	

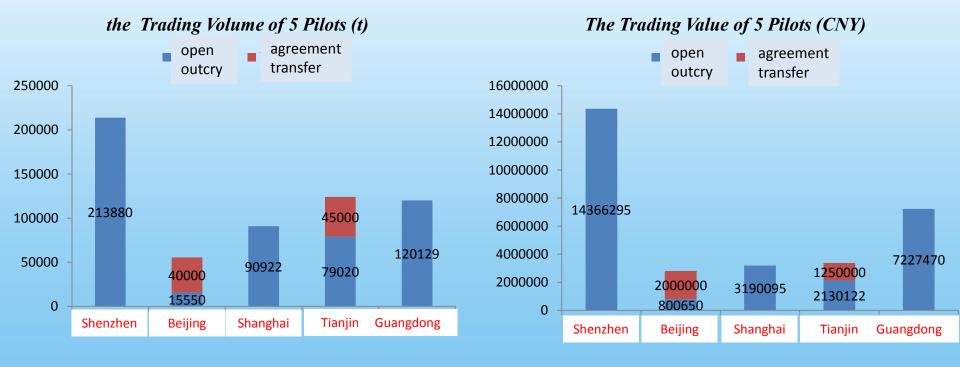


Progress at Pilot Level----Trading Platform and Participants

Pilots	Exchange	Product	Participants	
Shenzhen	Shenzhen China Emissions Exchange(Shenzhen)		Covered entities; Other institutions; Natural person	
Shanghai	Shanghai Environment and Energy Exchange	SHEA-13 SHEA-14 SHEA-15 CCER	Only covered entities so far	
Beijing	China Beijing Environment Exchange	BEA-13 CCER	Covered entities; Other institutions	
Guangdong	China Emissions Exchange(Guangzhou)	GDEA-13 CCER	Covered entities; Other institutions	
Tianjin	Tianjin Climate Exchange	TJEA-13 CCER	Covered entities; Other institutions; Natural person	



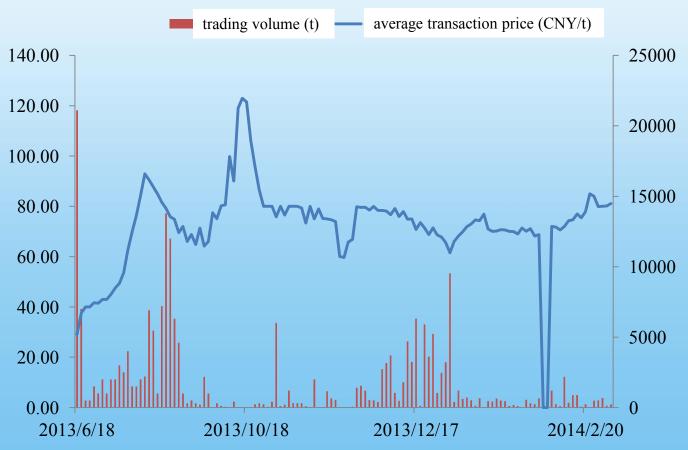
As of Feb. 28, 2014, the total trading volume of 5 pilots is *605,000 t*, and the total value is *30,965,000 CNY*.





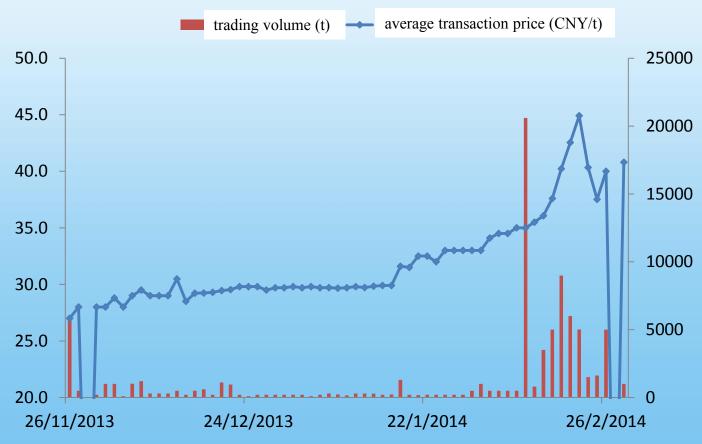
As of Feb. 28, 2014, the total trading volume of Shenzhen is 214,000 t, and the total value is 14,366,000 CNY, the average transaction price is 67.17 CNY/t.

Shenzhen Carbon Trading Market



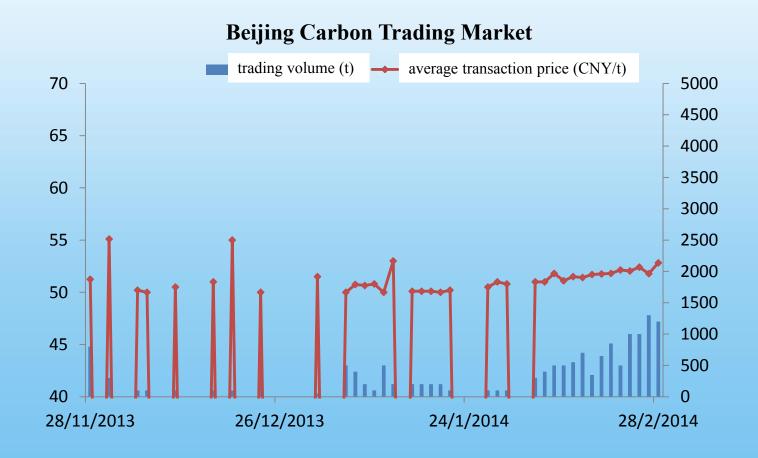
As of Feb. 28, 2014, the total trading volume of Shanghai is 91,000 t, and the total value is 3,190,000 CNY, the average transaction price is 35.10 CNY/t.

Shanghai Carbon Trading Market





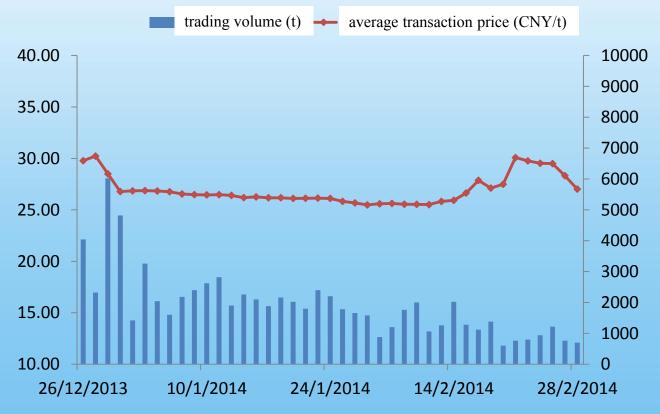
As of Feb. 28, 2014, the trading volume of open outcry is 15,550 t, the value is 800,000 CNY; and the trading volume of agreement transfer is 40,000 t, the value is 2,000,000 CNY. The total trading value of Beijing is 2,800,000 CNY, the average transaction price is 50.42 CNY/t.





As of Feb. 28, 2014, the trading volume is 79,000 t, the value is 2,130,000 CNY; and the trading volume of agreement transfer is 45,000 t, the value is 1,250,000 CNY. The total trading value of Beijing is 3,380,000 CNY, the average transaction price is 27.25 CNY/t.







Auctioning at Guangdong Carbon Trading Market

	Date	Year of Allowances	Auction (Mt)	Effective Declaration(Mt)	Trading volume (Mt)	Trading volume (CNY/t)	Base Price of (CNY/t)	Revenue of Auction (M CNY)	Number of Auction Success
4	2013/12/16	2013	3.00	5.073921	3,00	60	60	180.00	28
4	2014/01/06	2013	5.00	3.892761	3,892761	60	60	233.56566	46
1	2014/02/28	2013	2.00	1.130557	1,13.0557	60	60	67.83342	24
	Total		10.00	/	8.023318	/		481.39908	≤98



Final Comments

- ☐ Market is just in infant stage, and unpredictable market
- ☐ Learning by Doing Process
- ☐ Legal stringency and compliance force need to be strengthened
- ☐ Challenging for a fast growing economy
- ☐ Institutional capacity needs to be further enhanced



Thank you!

For more information **QIAN Guoqiang**



qianguoqiang@sino-carbon.cn