

For CityNet CLP Seminar



北京市碳排放权交易试点经验

Beijing's Experience on Emission Trading Scheme

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背景情况
Background



Introduction and Background 背景

北京是中国的首都，政治、文化、国际交往和科技创新中心。2019年常住人口2154万，经济总量5228亿美元，人均GDP2.4万美元。面积16410平方公里，辖16区。

Beijing is the capital of China. According to Beijing master plan, Beijing is being built into political, culture, technical innovation, and international communication center.

Facts by 2019,

- ◆ Permanent residence: 21.54 million
- ◆ GDP: 522.8 billion USD,
- ◆ GDP/capital: 24 thousand USD
- ◆ Area: 16,410 sq km



Introduction and Background 背景

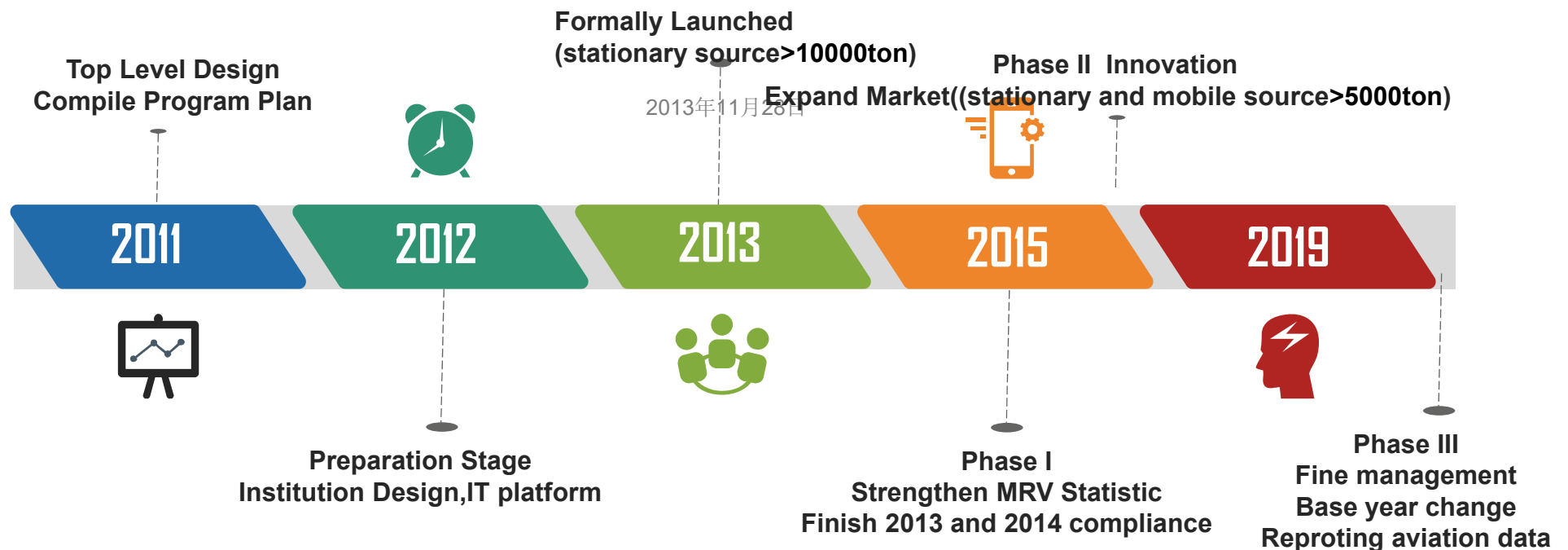
- Greenhouse gas emission reduction is China's Long-term policy. "China is willing to contribute more to the fight against climate change, as it aims to bring carbon emissions to a peak by 2030, and achieve carbon neutrality by 2060 with more forceful policies and measures." Chinese President Xi Jinping said on Tuesday.
- Beijing GHG reduction targets:
 1. The carbon intensity of 2020 should be reduced by 20.5% relative to 2015.
 2. Carbon emission to a peak level by 2020.
- Co-benefit from air pollution control measures.

/02 实践和经验 Practice and Experience



Beijing ETS Pilot Construction Stage

- ◆ On march of 2012, start the design of Beijing ETS;
- ◆ On 28th Nov. of 2013, formally launched Beijing ETS;
- ◆ Currently conduct 7th compliance year, at phase III of the market.



1.Top-Level Design

A pilot ETS was built under total emission control principle, and developed a "1+1+N" system of policies and regulations. It guaranteed the strict operation of the market with scientific quota allocation mechanism, scientific third-party verification system, flexible offset mechanism, standardized and open market operation and the strictest law enforcement.

地方立法 Local legislation

《关于北京市在严格控制碳排放总量前提下开展碳排放权交易试点工作的决定》(2013年12月27日北京市第十四届人民代表大会常务委员会第八次会议通过)



市政府管理办法 Administrative measures

北京市人民政府文件

京政发〔2014〕14号

北京市人民政府关于印发《北京市碳排放权交易管理办法(试行)》的通知

各区、县人民政府，市政府各委、办、局，各市属机构：
现将《北京市碳排放权交易管理办法(试行)》印发给你们，
请结合实际贯彻执行。

北京市人民政府
2014年6月28日

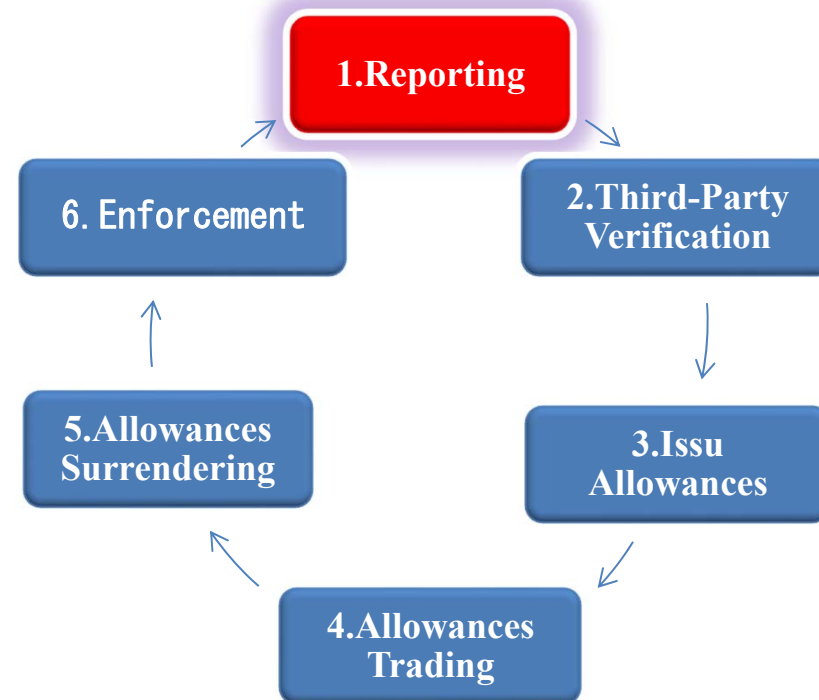


N个配套细则 Set of rules

- 《关于开展碳排放权交易试点工作的通知》
(京发改规〔2013〕5号)；
- 北京市碳排放权交易试点配额核定方法（试行）；
- 北京市企业（单位）二氧化碳核算和报告指南；
- 北京市碳排放权交易核查机构管理办法

2. Carbon market management process

Beijing ETS Pilot include 6 Stage: enterprise reporting, third party verification, Issuance of Allowances, Allowance Trading, Surrendering of Allowances, Enforcement



3.Facts

Entrance limit: Entities with annual carbon emission over 5000 tons.

Nearly 900 entities in the market.

ETS covers **40%** of Beijing total GHG emission.

Gas Type: CO₂;

Control field: power plant、heat、Cement、petrochemical

、Public Transportation、Service(mainly buildings)、Other industrial

Control scope: all the emission in the control entity.



electricity



heat



cement



Petrol



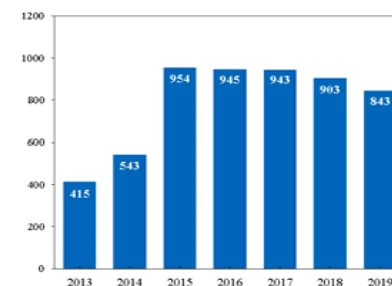
Transportation



Other Industrial



Service



4.Allowances

Considering Both Equity and Reasonability :

Distribution : Free allocation at first, and consider auction in the near future

Allowance Method: benchmark , Grandfather, historical intensity(temporary)



行业先进值

93
个

累积发布3批52个行业大类，93个行业子类先进值

新增门槛条件

5000

新增排放大于5000吨或2018年排放的20%；
新增小单位条件减半

新增配额比重

10%

约占年度总配额的10%

Industry Allowance allocation Factor

NO.	Industry	2013	2014	2015	2016	2017	2018	2019	2020
1	Cement	0.98	0.96	0.94	0.9	0.8	0.715	0.96	0.92
2	Petrol	0.98	0.96	0.94	0.92	0.83	0.80	0.95	0.90
	Petrol	0.98	0.96	0.94	0.92	0.83	0.80	0.96	0.92
3	Other industrial	0.98	0.96	0.94	0.92	0.9	0.87	0.96	0.92
4	Service	0.99	0.97	0.96	0.96	0.96	0.96	0.995	0.99
5	Heat	1	1	1	1	1	1	0.995	0.99
6	Trans-Mobile			0.995	0.995	0.995	0.98	0.96	0.92
	Trans-Station			0.995	0.995	0.995	0.98	0.995	0.99
	Railway			0.995	0.995	0.995	0.98	0.995	0.99
7	Electricity	benchmark							

5. Offset credits

To promote Market Liquidity:
allow 5% offset credits, includes:

Local Forest Sink,

Cross-regional forest sink, CCER and Low
Carbon Transportation Reduction etc. .

These credits provide a flexible way for entities
to surrender carbon duty, and at the same time
improve market liquidity.



Local Forest
Sink



Cross-regional
forest sink



CCER



Low Carbon
Transportation
Reduction

5. Offset credits

To encourage public participation into low carbon transportation, Beijing develop a method and a platform to calculate and collect the carbon emission reduction of a trip by walk, bicycle or public bus. Then the representative of the platform can trade the reduction amount in the ETS and refund the money to the public. This party-style project introduce more citizens to travel by low Carbon transportation.



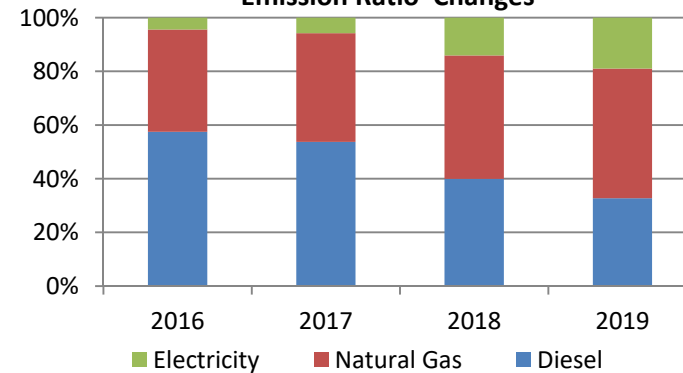
6. Market Performance

Case Study

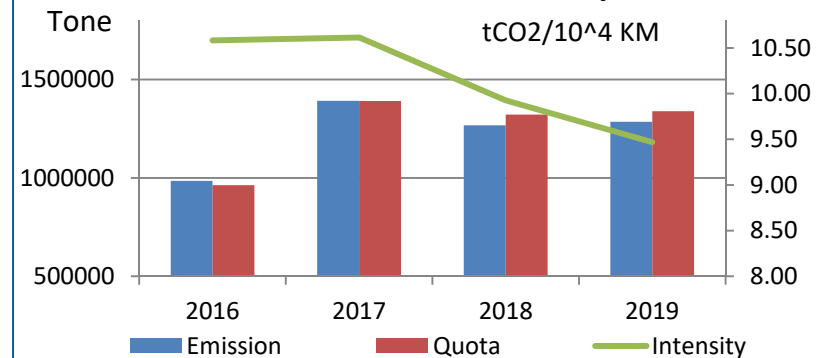
During 2016-2019, Beijing Public Transport's diesel carbon emission ratio change from 57% to 32%, decreased nearly 50%.

With carbon emission intensity decrease 10%, and Beijing Public Transport's quota surplus was achieved in 2018.

Beijing Public Transportation Corporation different Energy Emission Ratio Changes

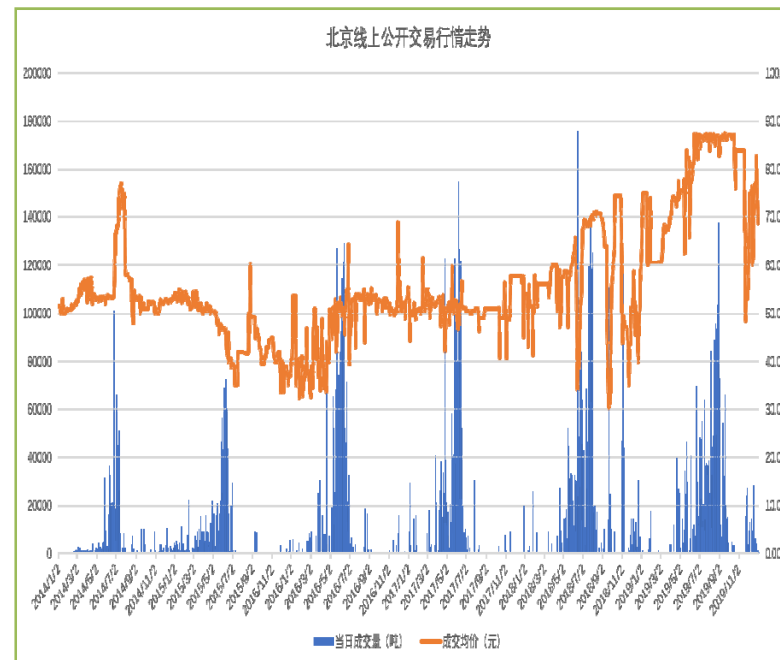
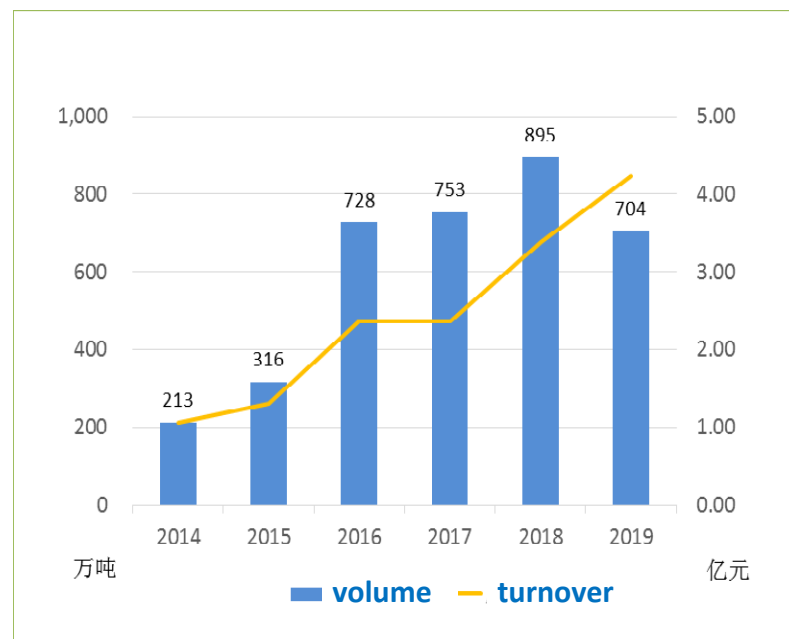


Beijing Public Transportation Corporation Emission and Emission Intensity



6. Market Performance


Since launched at 28th Nov. 2013, more than 62 million tons of carbon allowance and offset credits have been traded in the market, with a turnover of nearly 1.7 billion yuan. Among them, 36.68 million tons of carbon allowances were traded, with a turnover of 1.5 billion yuan. The average price is 60.22 yuan/ton.



/03

形势和展望
Outlook





By establishing a carbon emission trading market, raised the key CO2 emitters' awareness on energy conservation and carbon emission reduction, enhanced their awareness in low-carbon work, and provided an alternative for them to fulfill their responsibilities of energy conservation and carbon reduction.

We will improve the carbon emission trading system and speed up the building of climate-smart low-carbon cities

◆ **According to China's national ETS, transfer 13 power plants from Beijing ETS to China's national ETS.**

◆ **Including cargo truck fleet and aviation enterprises into Beijing ETS system.**



谢谢聆听
Thanks for Your Attention

