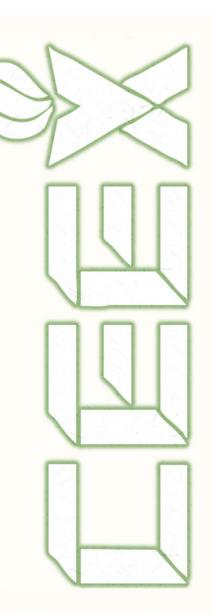


Carbon Market and Green Finance in CEEX

China Emissions Exchange (Guangzhou)

2020.09.25







01 Background of CEEX

Outline

- 02 Guangdong Carbon Market
- Green Finance
 &New Energy Assets Investment and Financing

1. Background of CEEX



In 2011, the NDRC launched carbon emission trading pilots in seven provinces and cities, including **Guangdong**, Hubei, Shanghai, Tianjin, Shenzhen, Beijing and Chongqing.

Emissions Trading Platform

- In 2012, Guangdong Provincial Government designated CEEX as the only trading platform of carbon emission trading pilot in Guangdong.
- In 2013, CEEX became the first batch of China Certified Emission Reduction (CCER) trading institution certified by the NDRC.

Joint Construction by Guangdong Province and Guangzhou City

- Founded on September 11, 2012.
- 100% owned by China Canton Exchange Group Ltd.
 - Service for Ecological Civilization Construction
 - ☐ Service for Green Finance
 System Construction
- Environment and Energy Trading Institution
- ☐ Green Finance Service Institution

广东省人民政府

中华人民共和国国家发展和改革委员会

发改办气候[2013]92号

关于|

广州市人 国家发展改革委办公厅关于同意广州碳排放权 你市 交易所有限公司为自愿减排交易机构备案的函 府报(2)

广玄公安 显功艺术,

用,促进 完成的重 你受《) 东省及展议单安天丁/ 州铁排放权父为所申请准至 ,体自愿减排交易机构备案申请的请示》(專发改资环[2012]880)收悉。

総审核,广州碳排放权交易所有限公司符合《温室气体自愿 减排交易管理暂行办法》第二十五条规定的交易机构备案条件, 现予以备案。

特此语告。



Designated CCER Trading Platform

Designated Guangdong Emission Allowances
Trading Platform

Guangdong Provincial Pu Hui Certified Emission Reduction (PHCER) Trading Platform

CEEX Green Finance Service Platform

China New Energy Assets Investment and Financing Platform

National Carbon Market Capacity Building (Guangdong) Center





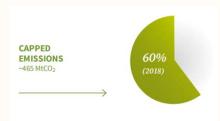


2. GD Carbon Market

Overview of Guangdong Carbon Market







Industries and Companies in 2019



Power



Cement



Petrochemicals



Iron& Steel



Domestic Aviation



Paper-making





Institutional Investors



242 Compliance Entities



23 New Projects



726 Individual Traders

GD Carbon Market

Market System in Guangdong Pilot







Spot Market (Exchange)









The Secondary Market

Individuals





Re-purchase, Forward, etc.

2. GD Carbon Market

Trading Products in Guangdong Pilot LEE





Guangdong Emissions Allowances (GDEA)

GDEA is allocated by Department of Ecology and Environment of Guagndong Province through auctioning or free allocation, which is the major trading products.



China Certi

China Certified Emissions Reductions (CCER)

CCER is signed and issued by Ministry of Ecological and Environment. It can be used for compliance obligation if appropriate, yet suspended since 2017.

Puhui Certified Eimissions Reductions (PHCER)

PHCER is signed and issued by Department of Ecology and Environment of Guagndong Province and can be used for compliance obligation.



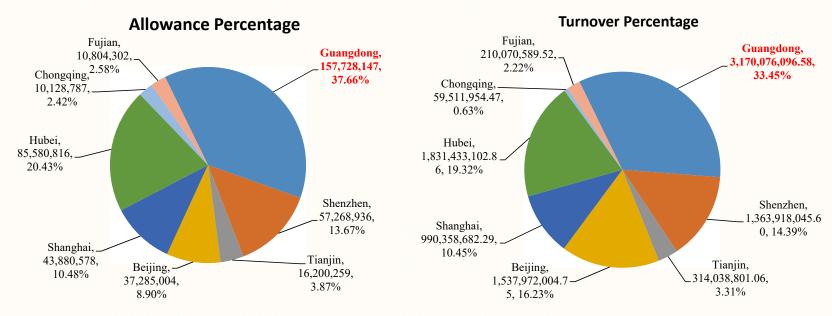
Shengtai Eimissions Reductions (STCER)

STCER is certified, signed and issued by the ecological compensation platform and can be used for publice welfare, poverty allevation and carbon-neutralization.

GD Carbon Market

GDEA Trading

- Ranking the first both in cumulative trading volume and cumulative turnover among other national pilots
- Giving rise to be **the third largest** carbon trading market after the EU ETS and Korean ETS internationally







2. GD Carbon Market The Carbon Market PHCER Trading



The Pu Hui Offset crediting mechanism is a subnational mechanism that credits emission reduction activities within the province of Guangdong. PHCERs are primarily intended to be used by compliance entities under the Guangdong pilot ETS. Similar to other Chinese subnational mechanisms, project applying for PHCERs are not eligible to apply for CCERs and vice visa.

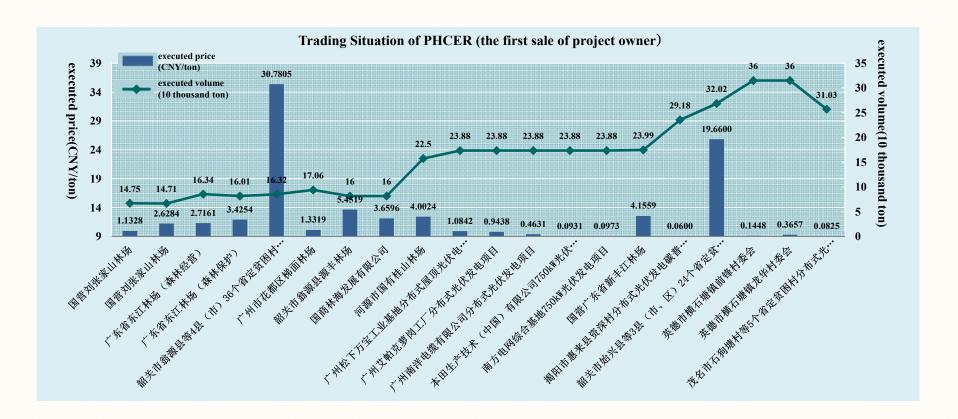
Guangdong Pu Hui Offest Crediting Mechanism		Geographic coverage Province of Guangdong
		Countries with projects 1
		Carbon Pricing initiatives accepting issued credits for compliance Guangdong pilot ETS
Administered by	Guagndong Ecology and Environment Bureau	Project types forestry carbon sinks distributed photovoltaics energy-saving air conditioning domestic air-source heat pumps cycling
Established in	2017	
Registered activities	69 1.52 million tons issued	
Credit name	Pu Hui Certified Emissions Reductions (PHCERs)	

2. GD Carbon Market The Carbon Market PHCER Trading





As of early September, 2020, the cumulative trading volume of PHCER was around 3.46 million tons in total and the turnover reached almost 59.59 million CNY.



2. GD Carbon Market THE CALLOUI MAINTENANCE Trading Practices





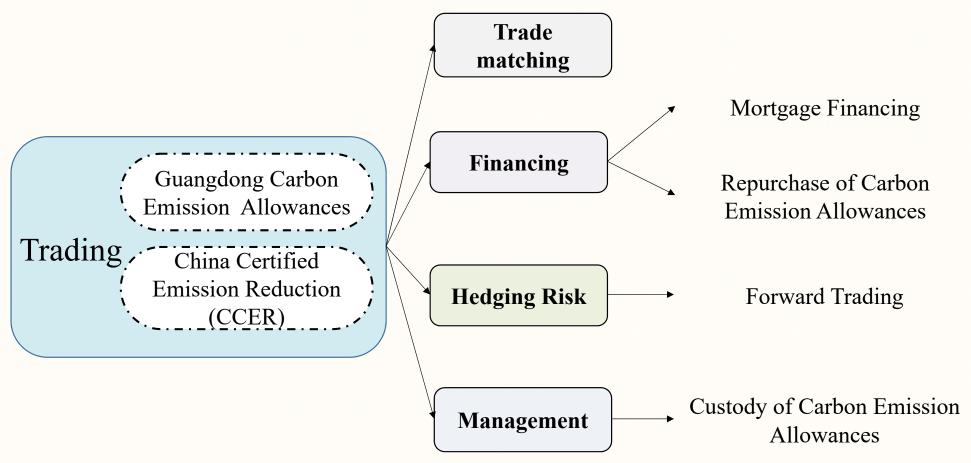


- Authorized by the Shaoguan government, CEEX has held bidding activities twice for the project owners from poor villiages in Shaoguan in June, 2018 and November, 2019 respectively, which have generated over 10 million CNY revenues and hence provided support for local poverty alleviation.
- The project implemented in Shaoguan falls into the forestry carbon sinks project type. And there are also some projects such as distributed photovoltaics projects and cycling projects being carried out but forestry carbon sinks projects are still the majority.

2. Carbon Market



Carbon Financial Services



The Relationship between Carbon Finance & Green Finance







The carbon finance market is an important drive to green finance development.

The carbon finance system is clear, and relatively more operable.

- In terms of project boundary, methodological standard, incentive mechanism and coverage, carbon finance can serve as a powerful tool for the deep tapping of green finance
- First, a clear boundary of the carbon market is good for project identification.
- Second, a clear price signal of the carbon market is helpful for pricing of green assets.
- Third, a self-recyclable positive motivation mechanism of the carbon market helps solve the issue of inadequate self-motivation of green industry development

3. Green Finance



Domestic Policy System for Green Finance

- In August 2016, seven ministries and commissions including the People's Bank of China jointly issued the Guidelines on Establishing the Green Finance System, stressing the orderly development of carbon finance products and derivatives, including carbon forward, carbon swap, carbon option, carbon lease, carbon bond, carbon asset securitization and carbon fund.
- In June 2017, the State Council held an executive meeting, approving the establishment of green finance reform and innovation pilot in the five provinces (autonomous regions) of Zhejiang, Jiangxi, Guangdong, Guizhou and Xinjiang.
- The Master Plan for the Establishment of the Green Finance Reform And Innovation Pilot in Guangzhou, Guangdong Province proposes to explore "turning carbon emission rights and other environmental rights, and their income rights into acceptable collaterals practically", "driving carbon asset mortgage loan operations", "setting up carbon funds", etc.



Strategic opportunities for the great development of carbon finance are about to arise!

3. Green Finance CEEX's Roles in Green Finance



Secretariat of Guangdong Green Finance Committee



3. Green Finance





Participate in Green Finance Standards top-level design

Standards of Carbon Finance Products Standards of Environmental Rights Financing Products

Standards of Green Funds

Standards of Environmental Information Disclosure

Pilot Zones
Pilot Zone (Guangdong) for Carbon Emission Allowances Mortgage
Pilot Zone for Marketization Ecological Compensation Based On Forestry Carbon Sink.

3. Green Finance Construction of Green Project Library



Responsibility of CEEX

- > Selection and recognition of green projects in Guangdong province (Guangzhou);
- Assist Municipal Financial Bureau in formulating the administration regulations on green companies and green projects;
- > Encourages the green companies and projects to carry out the recognition;
- > Issues and manages the list of identified green companies and projects.

The projects in the list will be treated as the long-term capital of green bond issuance and also be recommended to the foreign investors; **Import of foreign technologies and financial resources will be supported.**

Construction of Green Project Library in CEEX

Establish green projects registry

- 1. Information acquisition section
- 2. Information decision section
- 3. Information display section

Set up the management department of green project library

- **1. Group I:** the green projects supported by special financial funds and government investment funds;
- **2. Group II:** the green projects related to government procurement service;
- **3. Group III:** the green projects related to the equity investment or entrepreneurship;
- **4. Group IV:** projects information collection, verification of materials, and management of the project library

Establish the green projects management procedures

- 1. Identification of projects fields;
- **2.** Projects classification and related standards formulation
- 3. Project application
- **4.** Project management (statistics, promotion, motivation, delivery from library)

3. Green Finance Platform for Ecological Compensation **Based On Green Finance System**



General idea

- Establish trading system of ecological compensation
- **Upgrade** the Guangdong green elements exchange;
- Carry out the resource and environment (mainly composed by ecological products) trading;
- Trial of cross-region green elements trading and helping precision poverty alleviation.



The first ecological compensation project implemented forestry carbon sinks from Huizhou Shuimei villiage. SEE Pearl River Center purchased the credits and the revenues generated from the trading were used in the protection work of local pangolin.

Operation mode

- 1. Launch qualified ecological products;
- 2. Upgrade green projects library, select green projects about ecological compensation, and support the development of ecological compensation in Guangdong with support of green finance
- 3. Establish ecological compensation green funds through combining financial fund and social capital; Support the development of green
 - technologies through investment funds; Create a market-based mode for ecological compensation

3. New Energy Assets Investment and Financing



Sino-REIF

- Founded in January, 2018;
- Instructed and supported by National Energy Adminstration, Huadu government and other governmental authorities;
- Led by CEEX and China New Energy Investment and Financing Alliance;
- Cooperated with HYDROCHINA Engineering Consulting Co.,Ltd and Renewable Energy Department of China Electric Power Research Institute;







Platform for New Energy Assets Investment and Financing





Investment & Financing

- Selection of projects and construction ratio of project library
- Direct financing for companies
- Establish a platform for cooperation between government, banking, enterprises and society
- Comprehensive financial services, including credit, guarantee, insurance, and international settlement

Trading

- Formulate the guidelines of new energy assets trading
- List the new energy assets
- Married deal of new energy assets trading
- Settlement and supervision service for assets transaction

Value-added logistics service

- Valuation and risk Assessment
- Credit rating
- Legal adviser and accounting services
- Data acquisition for industry technical index, quality and absorption capacity of power grid

Platform Performance

- 148 new energy assets projects included (2.5GW total capacity);
- More than 1 billion yuan in renewable energy financing needs;
- Cooperation with 126 well-known new energy investors;
- Strategic cooperation with 20 industry research institutes.





Thank you!

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