Shanghai Environment & Energy Exchange and Shanghai ETS Pilot

SEEE Co. Ltd
Sept 27th, 2012
With the gradually popularization of climate change problem and sustainable development concept, low-carbon development pattern is increasingly given attention. After the world financial crisis, low-carbon economics has been considered a new economic growth point.

The world politics and economics has start a new “carbon” competition. A number of economical activities including carbon market, carbon trade and carbon finance emerged.

On July 16, 2008, NDRC held a meeting on exploring environment and energy transaction market, encouraging transaction market to be established antecedently in the area with suitable conditions.
Establishment of SEEE

- Given the written reply of Shanghai Municipal Government [2008] NO.55, SEEE was established on August 5, 2008.

- The first to take shape
- The first to set up online platform
- The first to undertake transactions
Reform of SEEE

- Supported by Shanghai Municipal Government, under the instructions of NDRC, SEEE accomplished its reform and increase of capital and shares on October 28, 2011.

- SEEE Co. Ltd is the first stock system environment exchange with the total registered capital of 250 million RMB.

- The Official Reply to Approve of the Reform of Shanghai Environment and Energy Exchange (Shanghai Government [2011] NO. 92)
Organizer of low-carbon industry chain
Promoter of international low-carbon cooperation
Constructor of China’s carbon market frame
Organizer of low-carbon industry chain

- Low-carbon industry hub
  Promoter of low-carbon industry chain formation
  Market mechanism of low-carbon development
Industry Hub

To establish a comprehensive transaction and services platform for various kinds of rights in international environmental protection and energy conservation & emission reduction field.

To promote energy conservation & emission reduction under market mechanism.
Market Mechanism—Core Services

- Domestic transactions of low-carbon technologies
- International low-carbon technologies cooperation
- South-South Global Environment and Energy Trading System

International Transactions of Low-carbon Technologies

- CDM Project Cooperation
- CDM Project Transaction
- CDM Training Center

VER

- China VER transaction system
- EXPO VER platform
- China VER standard

Transactions of Emission Rights

- Pudong Emission Rights Transaction Pilot
- The Yangtze Delta, Around Tai Lake Area
- COD, SO₂, etc

SEEE

Innovative environment and energy transaction mechanism

Expansion of technologies and capital transfer mechanism in international environment and energy field
The environment protection and low-carbon technology transaction platform in SEEE has attracted about 250 domestic and overseas technology projects with the total sum of 4.1 billion RMB.

Characteristics of technology transaction projects
- wide region
  - domestic: including Sichuan, Anhui, Jiangsu, Zhejiang, Qinghai, Xinjiang, etc.
  - Overseas: US, Japan, Australia, etc.
- wide range of fields
  - wastewater treatment, solar energy, wind power, geothermal energy, industry waste heat utilization, biomass energy, and environment site treatment
- allopatric projects dominant
  - nationwide platform
By the end of March 2012, the number of listed projects reached 477, the total sum amounted to 34.24 billion RMB, with 4886 deals of 8.208 billion transaction value.

The number of member reached 115, and ranked NO.1 nationwide in all aspects of market development.
Rapid growth in CDM projects

By the end of January 2012, the number of CDM project deals listed in SEEE reached 46, with total sum of 6.045 billion, ranking NO.1 nationwide.
In August 2009, the first voluntary emission reduction transaction platform — EXPO VER platform, as the first in EXPO history, was established in Shanghai.

By the end of 2011, the number of voluntary emission reduction accounts in SEEE exceeded 250 thousand.

VER in China has accomplished a “point to surfaces” development, from single transaction to systematical, comprehensive, large-scale transactions.
May 17th, 2010, Team Haibo on Mount. Everest, promoting voluntary emission reduction
Industrial Bank (IB) and Shanghai Environment and Energy Exchange jointly launched a “Low-carbon Credit Card.” It’s the first low-carbon credit card in Shanghai.

Promoting low-carbon life with all card holders and strengthening the whole society’s awareness of saving energy and reducing carbon emission.

By end of July 2012, card holder exceeding 346 thousand.
Low Carbon Credit Card

- IB donate 1 penny for each purchases made to the low carbon fund and purchase carbon emission reduction on Apr. 22\textsuperscript{nd} every year

- SEEEE set up “IB personal Green Carbon File” for each cardholder
3. Domestic cooperation

SEEE has set up branches in Heilongjiang, Ningxia, Qinghai and Fujian.

SEEE has also established cooperative relationships with local institutions in Zhejiang Hangzhou, Jiangsu Yanchen, etc.
Promoter of international low-carbon cooperation

- Platform of international low-carbon cooperation
- International low-carbon technologies transfer market
- Initiator of international low-carbon development
Successful Cases

- 1. COP17 Durban carbon neutrality
- 2. EXPO UN Pavilion carbon neutral activities
- 3. EXPO UK Pavilion carbon neutral activities
During COP17, SEEE assisted South-South Global Environment and Energy Technology Exchange, cooperating with UNFCCC, launched carbon neutral activities through market mechanism, giving a good example of global cooperation addressing climate change issues.

**Process—Contract signing**

- On Dec 7, 2011, an agreement was signed in Durban, South Africa, to authorize global exchange to launch related carbon neutral activities.
- SEEE participated in this activity as a representative of technology contributors:
  - Purchases through global exchange platform
  - Chinese enterprises participated in capital donation
  - 1844 t CER from CDM projects purchased in South Africa
Case 1 — COP17 Durban carbon neutrality

Process — Accounting

- Accounting task achieved by ICAO, the strategy and policy development department of UNFCCC
  - Carbon emission from the travel to Durban
    - 398 UN officials
    - 369 delegation members
  - 1844 tons carbon emissions in total
Case 1—COP17 Durban carbon neutrality

Process — Project selection

- **Selection Criteria**
  - High-quality CER
  - CDM projects from Africa countries, from South Africa preferred
  - Contributions to sustainable development

- **Selected fuel substitute project**
  - Brick plant located near Johannesburg, South Africa
  - Affiliated to Corobrik Co, Ltd, a local company with about 100-year history
  - Natural gas substitute for coal as fuel for manufacturing, registered CDM in EB, with 35,000 t certificated CER
Case1—COP17 Durban carbon neutral activity

- Donators purchased CER from selected projects through South-South Environment and Energy trading system.
- UNFCCC and its delegation achieved carbon neutrality through emission offset.
- UNFCCC awarded certificate to South-South Environment and Energy trading system and Guangzhou Shengzhou Investment Co, Ltd as commendation.
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Process — emission verification

- SGS verified carbon emission from the construction and opening of United Nation Pavilion

Process — emission reduction verification and purchases

- Carbon emission offset achieved through 3,000 t VER purchased, according to the verification report by SGS
- A Turkey water power project was select through voluntary emission reduction platform
Case 2—EXPO UN Pavilion carbon neutral activities

Process — Registration
- Emission reduction usage and amount registered in APX system after the purchases
- APX — international emission reduction registration system

Process — Carbon neutrality certificated to EXPO pavilion
- On Oct 19, UN pavilion has gone through all the processes of carbon neutrality, and was awarded “carbon neutrality” certificate
British Pavilion is the 1st to participate in carbon offset project during the SH. Expo

BSI verified carbon emission of UK Pavilion

Carbon emission offset achieved through 6,180t VER purchased
Constructor of China’s carbon market frame

- Participation in the design of national and local carbon trade regulation framework
- Research and development of related carbon accounting standard
- Promotion of the national carbon financial center construction
Framework of national and local carbon trade regulation

Policy

Shanghai appointed by NDRC as one of the pilot city to launch regional carbon emission right transaction

Content

- Accounting of the total greenhouse gas emission amount
- Allocation of emission reduction amount
- Assistance in the construction of transaction platform
- Set up sound supervision regulations
- Related work such as capacity building
Guiding ideology of the Framework

- **Government guidance and market regulation**
  - Strengthened government guidance, together with market mechanism, to reduce emission reduction costs effectively

- **Comparative emission reduction with emission intensity control**
  - Clarified carbon emission amount and allocation, with the goal of lower emission intensity

- **Differential treatment to promote industry transition**
  - Differential treatment towards existing and new enterprises, favored and unfavored industries
Scheme of Shanghai carbon transaction Pilot

- Enterprises survey
  - Identified the enterprises with good data basis

- Subject
  - Factors: emission scale, emission intensity, etc

- Gases type
  - Short-term: CO₂
  - Long-term: 6 greenhouse gases
Construction of transaction system

- Determine transaction mode
- Formulate financial and tax policies
- Clarify supervise institution and draw up monitoring regulations
- Set up matching transaction system and registration settling system
- Open enterprises transaction account
- Start carbon transaction pilot
Implementation

Three phases

- Phase I: 2012-2013 as preparation period, to determine the total amount of transaction, clarify subjects scope, set up verification system and allocate allowances
- Phase II: 2013-2015 as pilot period, to launch transactions pilot
- Phase III: the 13th five-year plan, to carry out nationally
Shanghai ETS Pilot Launched

- Including 200 major local polluters
- Range of fields:
  - Industrial: oil/chemical industry; electricity; construction, etc.
  - Non-industrial: aviation; hotel; railway; airport, etc.
- Annual GHG Emission:
  - Industrial company---over 20,000 tonnes
  - Non-industrial company---over 10,000 tonnes
- Free allowance assigned
- Emission reduction targets and market trading
Project research — Domestic cooperation

- **National 973 Project**
  - Sub-project of “coping with climate change”: study on voluntary carbon emission reduction market, study on international carbon emission transaction

- **Shanghai Development and Reform Committee**
  - Study on pilot scheme of carbon emission transaction in Shanghai
  - Study on carbon emission right transaction system in Shanghai
  - Study on 2005 greenhouse gases emission inventory
  - Study on energy-saving transaction system under total amount control in Shanghai

- **Shanghai Quality Supervision Bureau**
  - Strategy of exporting enterprises on coping with carbon trade barriers

- **Shanghai Environment Protection Bureau**
  - Pilot of emission right transaction system in Shanghai
Project research — International cooperation

- Britain SPF Fund — Study on carbon transaction framework
- US Energy Foundation — Management methods of carbon emission right transaction
- Bank of Asia — Study on Shanghai carbon finance development path
Thank you for your attention

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