

China Carbon Market Monitor

Q2 2017/ No. 9

The **PMR China Carbon Market Monitor** provides quarterly updates across the eight Chinese pilot carbon markets. The Monitor also provides analysis of climate policy and market developments at the national level. This issue covers market activity from April to June 2017.

Highlights

- In Q2 2017, the secondary carbon market for China's ETS pilots and the Fujian market accumulated a trading volume of 37.89 million tons, representing a trading value of US\$63.41 million, and an average price of US\$1.67/ton. Compared with Q1 2017, all ETS pilots saw a significant increase in their trading volumes in Q2. This was primarily driven by the need to meet compliance requirements.
- Shenzhen, Shanghai, Beijing, Guangdong, Tianjin and Fujian have finished compliance for emission of 2016. The compliance rate are displayed below:

Shenzhen	Shanghai	Beijing	Guangdong	Tianjin	Fujian
99.0% (803/811)	99.7% (367/368)	97.8% (925/947)	100% (244/244)	100% (109/109)	97.8% (271/277)

- CCER project registration and credit issuance are still in suspension, pending the revision of the regulations on CCER by the National Development and Reform Commission (NDRC), which means that no CCER registrations or credits were issued in Q2 2017.
- A significant milestone towards the national ETS was NRDC's release of the draft allocation methods for power generation, electrolytic aluminum and cement in May 2017. The methods are still being refined and are anticipated to be finalized soon for official allowance allocation.

Contents

Pilot Carbon Markets	2
Shenzhen	2
Shanghai	3
Beijing	4
Guangdong	5
Tianjin	5
Hubei	6
Chongqing	6
CCER Market	8
Policy Updates and Analysis	9

Disclaimer

This work is a product of Sino Carbon, under supervision from World Bank Group staff. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank Group, its Board of Executive Directors, or the governments they represent.

The World Bank Group does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank Group concerning the legal status of any territory or the endorsement or acceptance of such boundaries. Please direct any comments and questions about this work to the PMR Secretariat (pmrsecretariat@worldbank.org).

Pilot Carbon Markets

Since trading in China began on June 18, 2013, 166 million tons of emissions allowances have been traded on the secondary market across eight carbon markets. This accounts for a total value of US\$403 million, with an average price of US\$2.43/ton. Online trading and over-the-counter (OTC) transactions represent 53% and 47% of the total volume, respectively. Of the total trade value to date, 59% has come from online trading while 41% from OTC. In Shenzhen, Shanghai, Beijing, Guangdong and Tianjin, OTC tends to be the major trading pattern, while in other regions on-line trading dominates.

Below is a summary of the activity in each of the eight markets between April and June 2017. With the exception of the Guangdong and Shanghai markets, the data reported are for the secondary market, including online and OTC trading. ¹

Shenzhen

Shenzhen Pilot: Q2 2017	
Total Volume	2,292,243 tons of SZA
% total volume from 8 pilots	6.06%
Total Value	US\$8,397,403
% total value from 8 pilots	7.84%
Average price	US\$3.66/ton of SZA
Total historical volume	20.51 million tons of SZA
Total historical value	US\$96.88 million
Historical average price	US\$4.72/ton of SZA

Highlights

- Shenzhen traded 2,292,243 tons of Shenzhen Emissions Allowances (SZA) for a total value of US\$8,397,403, representing 6.06% and 7.84% of total volume and value, respectively, among all pilots this quarter. The majority (79.2%) of the SZA traded were the 2016 vintage.
- Online trading of SZA reached 9,386 tons and US\$40,462. Prices fluctuated from US\$2.83/ton to US\$6.09/ton. Unlike trading volume which had been increasing substantially during the compliance season, the price stayed relatively stable.
- 1,862,735 tons were traded OTC at a total value of US\$6,540,770. The average OTC trading price was US\$3.15/ton.
- The compliance rate of 2017 for Shenzhen is 99.0% (803/811), which is slightly lower than last year (99.8% (635/636)).

Figure 1. Cumulative Trading Volume in the 8 Pilots
(Million tons, Jun 18, 2013 - Jun 30, 2017)

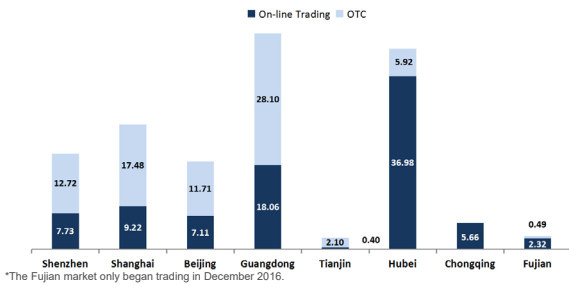


Figure 2. Cumulative Trading Value in the 8 Pilots
(Million US\$, Jun 18, 2013 - Jun 30, 2017)

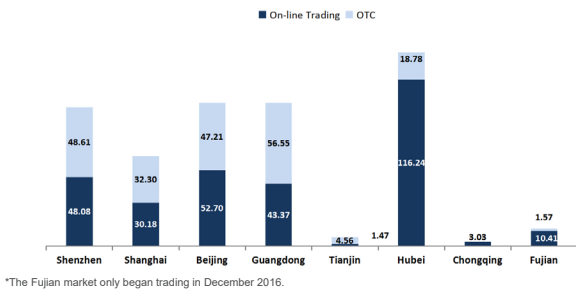


Figure 3. Daily Average Price of Online Trading (US\$/ton)
(June 18, 2013 - Jun 30, 2017)

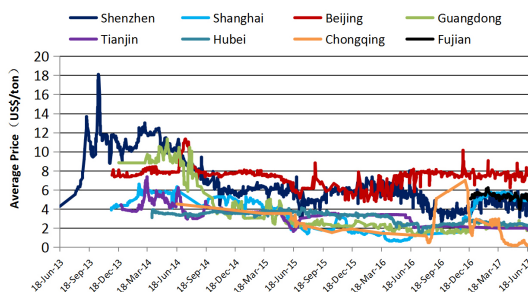
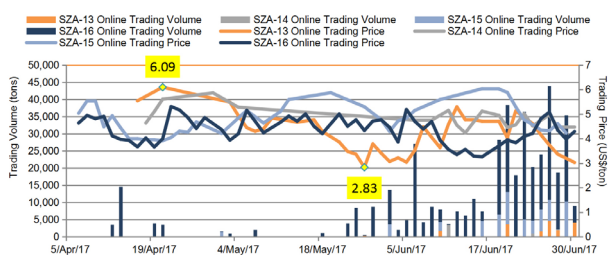


Figure 4. Shenzhen Carbon Markets: Online Trading
(Q2 2017)



¹ In China's pilot markets, all transactions—including OTC—must take place on trading platforms (i.e., exchanges). Therefore, the term "OTC" in this report refers to transactions that are brought to the exchanges for registration and clearing once the two parties making the deal have agreed on the price and volume of the trade.

Table 1. Shenzhen Secondary Carbon Market Data
(Q2 2017)

Time	Contract	Online Trading		OTC	
		Trading Volume	Trading Value (US\$)	Trading Volume	Trading Value (US\$)
		(tons)		(tons)	(US\$)
April	SZA13	2	12	0	0
May		319	945	0	0
June		17,963	64,875	12600	35556
Sub-total		18,284	65,832	12600	35556
April	SZA14	86	501	0	0
May		1	5	0	0
June		4,811	23,990	10000	33822
Sub-total		4,898	24,497	10000	33822
April	SZA15	34	149	0	0
May		1,513	6,379	171,000	631,325
June		58,271	290,694	55683	183350
Sub-total		59,818	297,222	226,683	814,675
April	SZA16	25,501	100,496	110000	393365
May		25,244	117,198	1030000	3760452
June		295,763	1,251,390	473452	1502900
Sub-total		346,508	1,469,084	1,613,452	5,656,717
Total		429,508	1,856,634	1,862,735	6,540,770

Shanghai

Shanghai Pilot: Q2 2017	
Total Volume	6,770,477 tons
% total volume from 8 pilots	17.89%
Total Value	US\$29,046,051
% total value from 8 pilots	27.13%
Average price	US\$4.29/ton
Total historical volume	26.70 million tons
Total historical value	US\$62.48million
Historical average price	US\$2.34/ton

Highlights

- 6,770,477 tons of Shanghai Emissions Allowances (SHEA) were traded for a total value of US\$29,046,051. Of this, 1,599,305 tons were traded online at a value of US\$8,213,585. 5,171,172 tons of SHEA were traded OTC at a value of US\$20,832,466.
- The online trading price initially decreased, then reached an inflexion and started to go up along with booming trading volume since June 7. The “bull market” was mainly triggered by two factors: (a) On June 7, the competent authority announced the compliance deadline to be June 30; (b) On Jun 12, the competent authority announced the decision to hold an auction on June 30 (i.e. the compliance deadline) with floor price higher than the market average, which further urged entities to purchase allowance at secondary market.
- An auction was held for 2016 allowances on June 30 in which 41,855 tons of SHEA were auctioned, representing US\$0.24 million. The fact that only 2% of this amount was traded at floor price indicates that entities had already enough allowance for compliance.

- As announced by the Shanghai DRC on July 7, only one enterprise failed to fulfil compliance obligation on time, achieving compliance rate of 99.7%. Shanghai was one of the most distinguished ETS regarding compliance performance by achieving 100% from 2013-2015, and almost 100% in 2016.
- 23,282 forward agreements were signed for the five kind of forward trading products on market (SHEAF052017, SHEAF082017, SHEAF112017, SHEAF022018, and SHEAF052018), representing 2,328,200 tons of underlying allowances. The delivery date for SHEAF052017 forward contracts was end of may, though the closing price for these contracts has not been made public.

Figure 5. Shanghai Carbon Market: Online Trading
(Q2 2017)

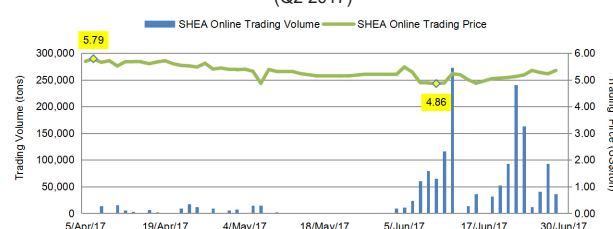


Table 2. Shanghai: Secondary Spot Market Data
(Q2 2017)

Time	Contract	Online Trading		OTC	
		Trading Volume (tons)	Trading Value (US\$)	Trading Volume (tons)	Trading Value (US\$)
Apr	SHEA	98,416	546,313	557,000	3,002,515
May		49,885	258,978	100,000	544,094
Jun		1,451,004	7,408,294	4,514,172	17,285,858
Total		1,599,305	8,213,585	5,171,172	20,832,466

Figure 6. Shanghai Carbon Markets: Forward
(Q2 2017)

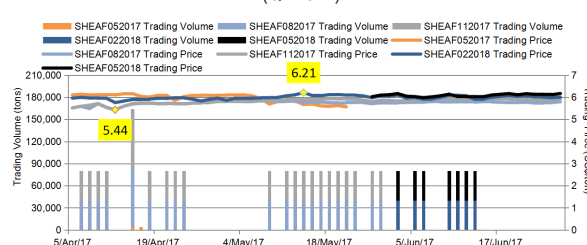


Table 3. Shanghai Auction Data
(Q2 2017)

Date	Auction Reserve Price (US\$/ton)	Available Quantity (million tons)	Transaction Volume (million tons)	Transaction Price (US\$/ton)	Transaction Value (US\$ million)
June 30, 2017	5.70	2	0.042	5.70	0.24

Table 4. Shanghai: Allowance Derivative Market
(Q2 2017)

Time	Contract	Trading Volume
April	SHEAF052017	8,200
May		0
June		—
Sub-total		8,200
April	SHEAF082017	400,000
May		480,000
June		0
Sub-total		880,000
April	SHEAF112017	400,000
May		480,000
June		0
Sub-total		880,000
April	SHEAF022018	0
May		0
June		280,000
Sub-total		280,000
April	SHEAF052018	—
May		0
June		280,000
Sub-total		280,000
Total		2,328,200

- The compliance rate of 2017 for Beijing is 97.7% (925/947), which is higher than last year, when 85 entities failed to surrender allowance as required. Although improved as a result of active capacity building activities during the past year, the compliance performance still tends to be poor compared with other pilots. This can be explained by the following reasons: (a) 16 of the 22 non-compliant entities are new entrants in 2015, and might not be familiar with carbon market rules and technical requirements. (b) Beijing Development and Reform Commission (DRC) released the official notice for compliance on June 13, leaving only two days for enterprises to surrender allowance and fulfil compliance obligation.

Beijing

Beijing Pilot: Q2 2017	
Total Volume	5,279,599tons
% total volume from 8 pilots	13.95%
Total Value	US\$26,334,141
% total value from 8 pilots	24.60%
Average price	US\$4.99/ton
Total historical volume	18.81million tons
Total historical value	US\$99.91million
Historical average price	US\$5.31/ton

Highlights

- 5,279,599 tons (US\$26,334,141) of Beijing Emissions Allowances (BEA) were traded in Q2. Online trading totaled 2,104,041 tons of allowances (US\$15,412,655) with an average price of US\$7.33/ton allowance, which is the highest among all markets this quarter; 3,175,558 tons (US\$10,921,485) of BEA were traded OTC and the average OTC price was US\$3.44/ton of allowance.
- Trading had been quite active in Q2 until the compliance deadline (June 15).

Figure 7. Beijing Carbon Market: Online Trading
(Q2 2017)

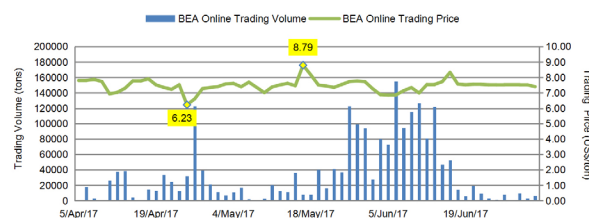


Table 5. Beijing: Secondary Carbon Market Data
(Q2 2017)

Time	Contract	Online Trading		OTC	
		Trading Volume (tons)	Trading Value (US\$)	Trading Volume (tons)	Trading Value (US\$)
April	BEA	445,659	3,143,753	378,112	1,197,659
May		601,399	4,593,502	819,532	2,874,007
June		1,056,983	7,675,401	1,977,914	6,849,819
Total		2,104,041	15,412,655	3,175,558	10,921,485

Guangdong

Guangdong Pilot: Q2 2017	
Total Volume	10,798,272 tons
% total volume from 8 pilots	28.54%
Total Value	US\$21,522,241
% total value from 8 pilots	20.10%
Average price	US\$1.99/ton
Total historical volume	46.16 million tons
Total historical value	US\$99.92 million
Historical average price	US\$2.16/ton

Highlights

- The Guangdong market had the highest volume (10,798,272 tons of allowances) and value (US\$21,522,241) of trading among all markets in Q2.
- Online trading totaled 3,837,942 tons of GDEA (US\$8,055,312). The average price was US\$2.10/ton of allowance. 6,960,330 tons of GDEA (US\$13,466,929) were traded OTC; and the average OTC trading price was US\$1.93/ton of GDEA.
- As shown in Figure 8, trading had been relatively even before and after the compliance deadline (June 20), which is one of the most noteworthy features of Guangdong. In this ETS, entities tend to anticipate to arrange trading early, instead of waiting until the last minute before the compliance deadline.
- No allowance was traded in the auction on June 5 since the reserve price was even higher than the market one.
- In addition, 37,612 tons of forestry PHCER were auctioned. PHCER is the credit generated from a local offset mechanism of Guangdong aiming to encourage emission mitigation from small sources like individuals and tiny projects.
- All the 244 covered entities surrendered adequate allowances for compliance before the deadline (June 20), achieving 100% compliance for a third successive year.

Table 6. Guangdong Secondary Carbon Market Data (Q2 2017)

Time	Contract	Online Trading		OTC	
		Trading Volume	Trading Value	Trading Volume	Trading Value
		(tons)	(US\$)	(tons)	(US\$)
April	GDEA	996,919	2,214,737	2,014,106	3,786,829
May		754,179	1,670,792	2,370,000	4,850,277
June		2,086,844	4,169,784	2,576,224	4,829,822
Total		3,837,942	8,055,312	6,960,330	13,466,929

Figure 8. Guangdong Carbon Market: Online Trading (Q2 2017)

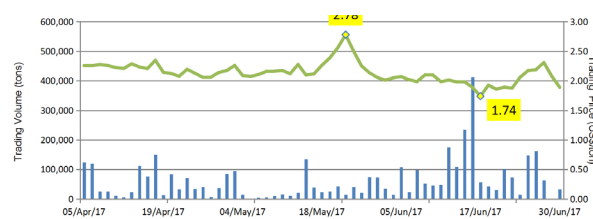


Table 7. Guangdong Auction Data (Q2 2017)

Date	Product	Auction Reserve Price (US\$/ton)	Available Quantity (million tons)	Transaction Volume (million tons)	Transaction Price (US\$/ton)	Transaction Value (US\$ million)
June 5, 2017	GDEA	2.23	0.50	0	—	0
June 5, 2017	PHCER	1.77	0.037612	0.037612	2.16	0.081426

Tianjin

Tianjin Pilot: Q2 2017	
Total Volume	10,880 tons
% total volume from 8 pilots	0.03%
Total Value	US\$18,500
% total value from 8 pilots	0.02%
Average price	US\$1.70/ton
Total historical volume	2.50million tons
Total historical value	US\$6.03 million
Historical average price	US\$2.41/ton

Highlights

- Only 10,880 tons of Tianjin Emission Allowances (TJEA) were traded online for a total of US\$18,500 in Q2. All the transactions happened in June, just before the compliance deadline (June 30). The weak trading is likely due to over-allocation of allowances.
- The compliance rate of 2017 for Tianjin is 100.0%(109/109).

Figure 9. Tianjin Carbon Market: Online Trading (Q2 2017)

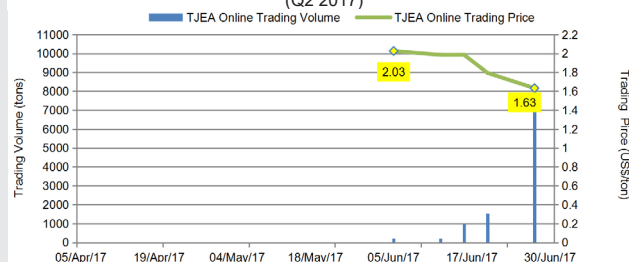


Table 8. Tianjin Secondary Carbon Market Data (Q2 2017)

Time	Contract	Online Trading		OTC	
		Trading Volume (tons)	Trading Value (US\$)	Trading Volume (tons)	Trading Value (US\$)
April	TJEA15	0	-	0	0
May		0	-	0	0
June		10,880	18,500	0	0
Total		10,880	18,500	0	0

Hubei

Hubei Pilot: Q2 2017	
Total Volume	6,024,650 tons
% total volume from 8 pilots	15.92%
Total Value	US\$13,738,341
% total value from 8 pilots	12.83%
Average price	US\$2.53/ton
Total historical volume	42.90million tons
Total historical value	US\$135.02million
Historical average price	US\$3.15/ton

Highlights

- 6,024,650tons (US\$13,738,341) of Hubei Emissions Allowances (HBEA) were traded in Q2.
- Online trading had been the dominant trading type with average price of US\$2.29/ton, totaling 5,523,850 tons (US\$12,643,062). 500,800 tons (US\$1,095,279) of HBEA were traded OTC with average price of US\$2.19/ton.
- As displayed in Figure10, trading tended to be more active entering June while the price started to descend.
- In the derivative market, trading of HBEA1705 reached 759,200 tons (US\$712,838). HBEA1705 was originally designed to serve compliance, and have been delivered in May.

Figure 10. Hubei Carbon Market: Online Trading (Q2 2017)

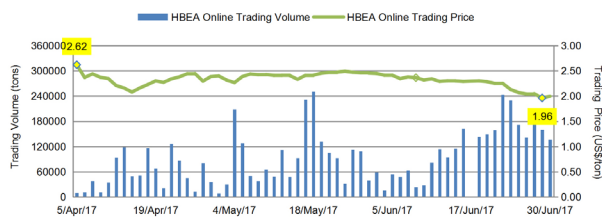


Table 9. Hubei Secondary Carbon Market Data (Q2 2017)

Time	Contract	Online Trading		OTC	
		Trading Volume (tons)	Trading Value (US\$)	Trading Volume (tons)	Trading Value (US\$)
April	HBEA	1,013,708	2,313,027	200,000	422,040
May		1,939,292	4,667,888	0	0
June		2,570,850	5,662,147	300,800	673,239
Total		5,523,850	12,643,062	500,800	1,095,279

Table 10. Hubei Secondary Carbon Market Data (Q2 2017)

Time	Contract	Trading Volume	Trading Value
		(tons)	(US\$)
April	HBEA1705	494,800	1,324,815
May		264,400	712,838
June		—	—
Total		759,200	712,838

Chongqing

Chongqing Pilot: Q2 2017	
Total Volume	4,913,892tons
% total volume from 8 pilots	12.99%
Total Value	US\$1,463,998
% total value from 8 pilots	1.37%
Average price	US\$0.30/ton
Total historical volume	5.66million tons
Total historical value	US\$3.02million
Historical average price	US\$0.53/ton

Highlights

- 4,913,892 tons (US\$1,463,998) Chongqing Emissions Allowances (CQEA) were traded in Q2, all online.
- Building on the trend of Q1, the price continued to decrease along with booming trading volume in Q2.

Figure11. Chongqing Carbon Market: Online Trading (Q2 2017)

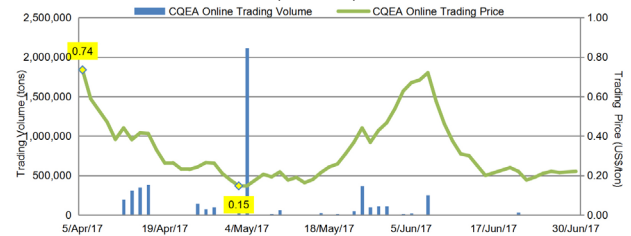


Table11. Chongqing Secondary Carbon Market Data (Q2 2017)

Time	Contract	Online Trading		OTC	
		Trading Volume (tons)	Trading Value (US\$)	Trading Volume (tons)	Trading Value (US\$)
April	CQEA	1,559,261	589,875	0	0
May		3,030,695	662,698	0	0
June		323,936	211,425	0	0
Total		4,913,892	1,463,998	0	0

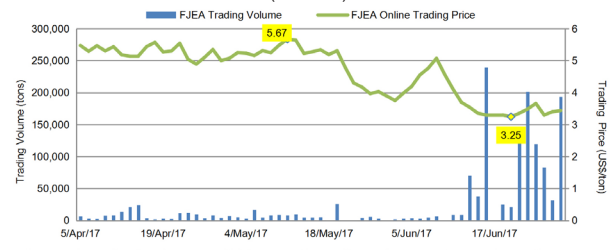
Fujian

Fujian Pilot: Q2 2017	
Total Volume	1,804,723 tons
% total volume from 8 pilots	4.77%
Total Value	US\$6,668,179
% total value from 8 pilots	9.51%
Average price	US\$6.23/ton
Total historical volume	2.81 million tons
Total historical value	US\$11.97million
Historical average price	US\$4.26/ton

Highlights

- In its second full quarter of operation, trading turned less active. The trading volume totaled 1,804,723 tons (US\$6,668,179), in which 1,311,923 tons (US\$5,101,485) were online and 492,800 tons (US\$1,566,694) were OTC.
- The price had fallen from US\$5.5/ton to around US\$3.5/ton from the end of May, which is likely due to the dominant position of the short side over the long.
- Fujian has finished the first compliance. 271 out of 277 (97.8%) enterprises have surrendered adequate allowance on time, 2 deferred for compliance, 4 have not taken action yet. The 4 enterprises failing to fulfil compliance obligation are from ceramics sector in which small and less organized ones account for a large portion.

Figure 12. Fujian Carbon Market: Online Trading (Q2 2017)



Daily OTC data of Fujian is not available, thus the trading volume in Figure 12 is total amount.

Table 12. Fujian Secondary Carbon Market Data (Q1 2017)

Time	Contract	Online Trading		OTC	
		Trading Volume (tons)	Trading Value (US\$)	Trading Volume (tons)	Trading Value (US\$)
April	FJEA	146,105	763,535	0	0
May		127,195	660,768	0	0
June		1,038,623	3,677,182	492,800	1,566,694
Total		1,311,923	5,101,485	492,800	1,566,694



CCER Market

As of June 30, 2017, 2,871 Certified Emission Reduction (CCER) projects have been publicized for comment and 1,047 have been registered (287 of which have been issued). Among those issued, the certification reports for 254 (representing 52.94 million tons of CCERs) are publically available.

Among issued projects, 139 are Type I (18.9 million tons of CCERs issued), 17 are Type II (3.72 million tCO₂e), and 98 are Type III (30.31 million tCO₂e). In addition, wind, small-scale hydro, solar PV and household biogas projects are most popular, due in part to the offset rules for CCERs in the pilot carbon markets.

	Wind	Hydro	Solar PV	Household biogas	Total
Total projects	90	32	48	41	254
Millions of tCO ₂ e	12.46	13.42	2.74	6.29	52.94

115.96 million tons of CCERs have been traded through the exchanges (Figure 15). Forty-six percent of trading has taken place on the Shanghai market (53.23 million tons), which resumed CCER transactions on February 8 after a six-month suspension.

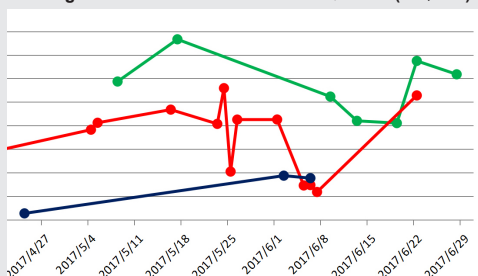
Only the Shanghai, Beijing and Sichuan exchanges disclose CCER prices. Q2 prices for CCERs trading on the Shanghai market ranged from US\$2.05/ton to US\$3.83/ton. Prices were comparable on the Beijing market, ranging from US\$0.59/ton to US\$2.79/ton, while prices in Sichuan were much lower: between US\$0.13/ton and US\$0.94/ton.

Overall, CCER prices fluctuated severely in Q1. Nevertheless, no signals of rising or declining trend were observed, which is likely a mutual effect of two factors:

(a) NDRC has announced that it will stop CCER registration, providing little expectation that CCERs will continue to be part of the national ETS.

(b) CCER demand for compliance has risen during Q2.

Figure 16. On-line CCER Price of Q1 2017 (US\$/ton)



** There was no on-line CCER trading between April 1 and April 19.

Figure 13. CCER Projects by Type (number of projects issued)

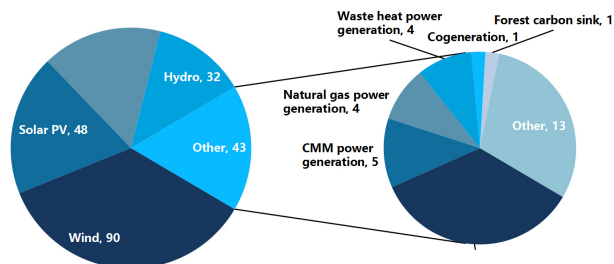


Figure 14. CCER Projects by Type (million tons of credits issued)

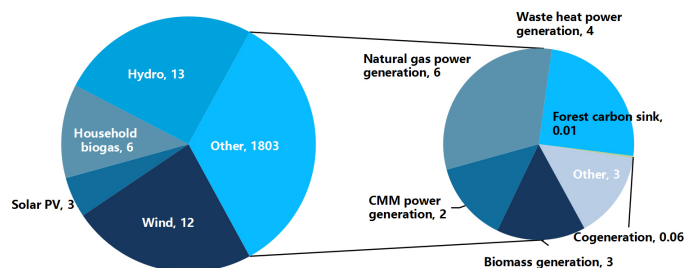
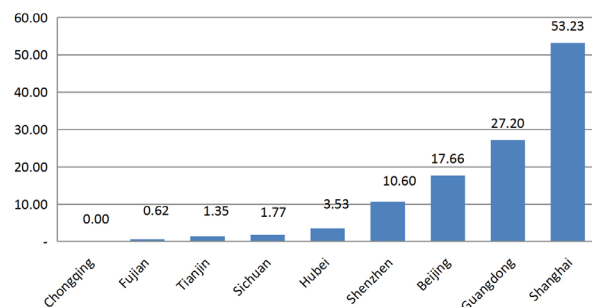


Figure 15. Distribution of CCER Trading Among Exchanges (M tCO₂e)



³According to regulation on the management and operation of CCER projects issued by the NDRC, there are four categories of CCER projects. Category 1 refers to newly developed CCER projects. Category 2 refers to those projects which get a Letter of Approval from the Designated National Authority but are not yet registered at the CDM Executive Board. Category 3 refers to those registered CDM projects applying for issuance of emissions reductions generated before the date of registration, known as Pre-CDM projects. Category 4 refers to those registered CDM projects for which the CDM Executive Board never issued any emissions reductions.

⁴On March 14, 2017, the NDRC suspended CCER project registration and credit issuance in order to revise its Interim Measures for the Administration of Voluntary Emission Trading of GHG. Existing registered and issued projects will not be impacted by the revision.

Policy Updates and Analysis

Updates on Development of China's National ETS—Allocation Methods

China NDRC released the draft allocation methods for power generation, electrolytic aluminum and cement in May. Benchmark approach was applied to all the three sectors while the detailed calculation formula varies accordingly.

NDRC are now conducting trial calculation to evaluate the allocation methods. The methods may be optimized and benchmarks may be adjusted based on the feedback before launching of national ETS.

It is highly possible that these three sectors would be the ones to be covered in the first year of the national ETS, while others with weaker data basis or more complex products may be covered at a later stage to leave sufficient time for the optimization of their allocation methodologies. Ideally, benchmarks are supposed to be set for all the sectors, because of the advantages of benchmarking. For instance, this method would reward those companies taking early actions on emission abatement. However, compared to the grandfathering method, the benchmarking might face more practical barriers.

Notes on the sources and methodology used for this report

1. Among the seven carbon emissions trading pilots, only Guangdong has used auctioning to distribute part of the allowances to regulated entities (i.e., the primary market). Therefore, the China Carbon Market Monitor only reports on allowances changing hands once they have already been distributed through free allocation or auctions (i.e., through the secondary market). In the seven carbon emissions trading pilots, such transactions can only take place on the officially designated trading platforms (i.e., the “exchanges”) with participants trading either online on an anonymous basis, or OTC where traders agree on a quantity and a price for the allowances, and then register and clear the deal with the trading platform.
2. Online trading information (i.e., daily trading volume, value, and average price) is publicly available for all eight pilot markets. However, the availability and modality of publication of OTC trading data varies among different markets: Shanghai, Shenzhen, Guangdong and Tianjin and Hubei publicly report data for all OTC transactions; Beijing publicly reports OTC transactions on an aggregated basis, and thus values are determined through a subtraction; For Fujian, the OTC data could be obtained by subtracting the online value from the total value (official total value is provided by Haixia Equity Exchange of Fujian and unofficial weekly aggregated online data is provided by Tianjin Emission Exchange). Chongqing does not have OTC transactions.
3. As of June 30, data on the CCER project pipeline, registration, and issuance is officially publicized by China Certified Emission Reduction Exchange Info-Platform, which is the official website for CCER project information. Data on CCER trades come from public announcements made in the press and by market players in the respective markets.
4. Availability of allowance vintages for trading is determined by the respective pilots' allocation plans. Shanghai allocated allowances for three years (2013, 2014, and 2015) at once, then converted them to 2016 allowance (SHEA) associated with newly distributed units in 2016. Shenzhen and Tianjin allocate allowance vintages every year. Beijing and Guangdong allocate allowances each year but do not distinguish between vintages. For the purposes of this report, BEA and GDEA, therefore, correspond to all Beijing Emissions Allowances and Guangdong Emissions Allowances from 2013 to 2016. Chongqing allocated allowances for 2013, but does not intend to distinguish between vintage years. CQEA-1 is the Chongqing Emissions Allowance valid for the whole pilot phase since May 28, 2014. Hubei allocated allowances for 2014, but will not use vintages; therefore, HBEA is the corresponding Hubei Emissions Allowance for the pilot phase since April 2, 2014.
5. A CNY/US\$ exchange rate of 0.14705 was used in this report.