

Supporting the National Carbon Market Offset and Analysis on Improving the Functions of CCER Registry

National Center for Climate Change Strategy and International Cooperation Environmental Defense Fund October 2022

Introduction

- The National GHG Voluntary Emission Reduction Program is a program for filing, certification and trading of voluntary greenhouse gas emission reduction projects in China, drawing on the experience of international Clean Development Mechanism (CDM) project management. Since 2012, China has issued a series of documents including the "Interim Measures for the Administration of Voluntary Greenhouse Gas Emission Reduction Trading", implemented filing management for voluntary emission reduction trading, and established a registry system of the GHG voluntary emissions reduction program, realizing the national trading of Chinese Certified Emission Reductions (CCERs) generated by voluntary emission reduction projects.
- Based on the review of the operation and management processes of the CCER life cycle, this study puts forward the concept of phased construction of the CCER registration system under the new situation such as the "dual carbon" goal and the launch of the national carbon market, so as to meet the comprehensive management of the entire life cycle operation such as project application, project registration, emission reduction monitoring and issuance, emission reduction trading and use/retire after the restart of CCER business. At the same time, the research group supported the competent authorities to complete the tasks related to the use of CCER by key emitters under the national carbon market to offset the implementation of the 2019-2020 year.

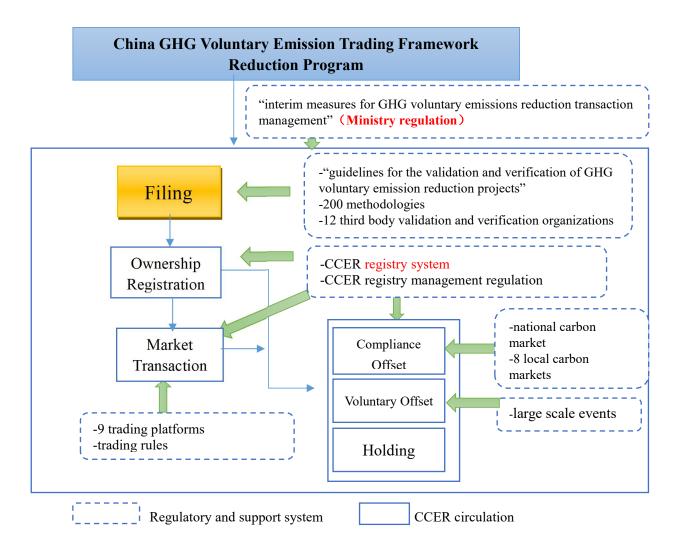
Major Events

National Development and Reform Commission (NDRC)				
June 2012 issued	"interim measures for GHG voluntary emissions reduction transaction management" .»	NDRC issued "guidelines for the validation and verification of GHG voluntary emission reduction projects".	October 2012	
March 2013 N	DRC filed the first group of methodologies (52 in total).	NDRC filed the first CCER project (Gansu Anxi Xiangyang wind farm project).	March 2014	
January 2015	CCER registry system came online .	the first CCER project registered in the registry system and was issued emission reduction credit.	Feburary 2015	
March 2017 applica	the competent authorities suspended the filing of ation related to GHG voluntary emission reduction.	The Ministry of Ecology and Environment (MEE) issued the "implementation guide for carbon neutralization in	June 2019	
off of	AO admitted CCER to provide qualified carbon set for international aviation during the pilot period the Carbon Offsetting and Reduction Scheme for ernational Aviation (CORSIA)	large scale events (Trial)", allowing the use of CCER and other methods to carry out carbon neutralization for large scale events. MEE issued the "measures for the administration of carbon emission trading (trial)", allows key emission enterprises to use CCER to offset compliance	December 2020	
October-December 2021	the first phase of CCER compliance offset in the national carbon market completed	obligations each year.	October 2022	
		MEE continued to revise the CCER regulatory system.	OCIODE 2022	

China GHG voluntary emission reduction program

management framework

■ Since 2012, China has gradually built a national greenhouse gas voluntary emission reduction management and trading system framework, and realized the unified project management, filing and issuance and ownership registration of CCER at the national level; The registry of the GHG voluntary emissions reduction program is connected with nine local carbon market trading systems, forming nine local CCER secondary trading markets whose functions include national and pilot carbon market compliance offsets, financial investment, and carbon offset for public welfare. It has established an information platform for China's voluntary emission reduction trading, which discloses information on technical documents, filed methodologies, filed validation and verification bodies for emission reduction projects, and accepts public supervision.



 $Fig. 1\ China\ GHG\ voluntary\ emission\ reduction\ program\ management\ framework$

CCER projects and transaction

More than 1,300 projects have been filed, covering energy industry, waste disposal, agriculture, afforestation and other fields, and the annual emission reduction is expected to exceed 100 million tons. Approximately 77 million tons of emission reductions were issued. As of the end of September 2022, CCER has a cumulative trading volume of about 450 million tons and a cumulative turnover of about 6 billion yuan.

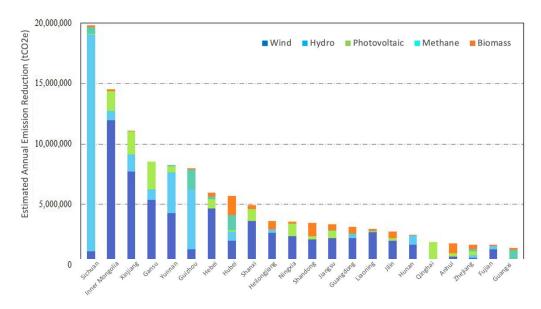


Fig.2 filed of projects in various provinces and cities

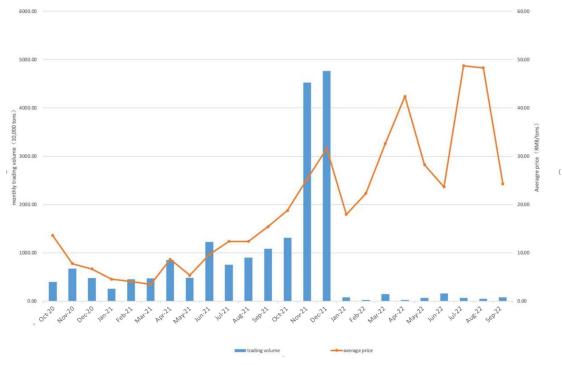


Fig.3 monthly CCER trading in the past 2 years

CCER offset in the first compliance period of the national carbon market

From October to December 2021, more than 190 key emitting enterprises under the national carbon market used about 30 million tons of CCER for compliance offset. Offsetting projects include a variety of types such as renewable energy, of which hydropower and wind power projects together account for more than 50%.

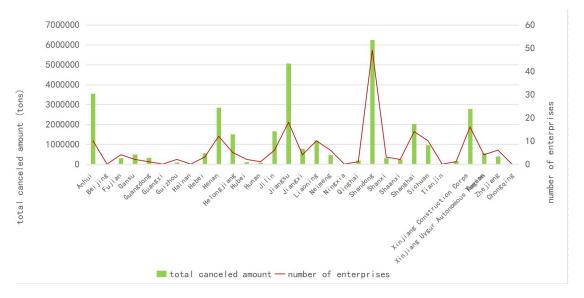


Fig.4 compliance offset using CCER by key emission enterprises in various provinces and cities

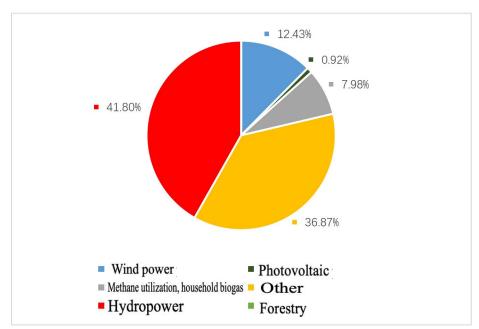


Fig.5 composition of different types of CCER projects in the first phase of the national carbon market offsets

CCER registration system development and operation demand planning

Phased development ideas suggested

Phase I

Complete the development of the core account management function and emission reduction registration management function of the system, and realize the necessary query and statistics function. It is planned to implement the data migration of the new and old systems, connect the trading system, and support the compliance offset of the national carbon market in 2019-2020.



Phase II

According to the revised "Measures for the Administration of Voluntary GHG Emission Reduction Programs and Emissions Reduction Transactions", complete the development of project registration management function, emission reduction certification management function and information release function, and realized the docking with the national carbon emission registration system to ensure the realization of the compliance offset function of the national carbon market.



Phase III

According to the requirements of international emission reduction mechanisms such as CORSIA, and relevant management measures of China, develop supervision and management functions such as foreign enterprise account opening, CCER cross-border transactions, CORSIA offset, and construct necessary disaster recovery systems.

Comparison and identification of core business function requirements of old and new systems

Core operation	Old system	New system (to be developed)	
User management	- User type: national administrator, provincial administrator, project owner, enterprise, etc - No user registration review function (offline)	Need to add user types such as local authorities, review experts, and overseas enterprises User account register review (online + offline) User profile management	
project management	No project review function (offline)	- Project PDD listing -Online audit by local authorities -Expert database management and random assignment of tasks - Expert review (online + offline), public opinion	
Emission reduction management	-No emission reduction verification function (offline) -The issuance of emission reductions must be entered manually -Emission reduction coding function	-emission reduction verification report and monitoring plan listing -Expert database management and random assignment of tasks - Expert review (online + offline), public opinion - Automatic acquisition and manual verification of emission reduction issuance information - Emission reduction code to increase the identification function	
Compliance offset	-Serve 8 local carbon market compliance offsets (online + offline) -No external system connection	- The national carbon market compliance offset function is linked to the national carbon market registration system -Meets the function requirement of connecting with external systems such as international offset	
Voluntary offset	- The competent authority of the place where the cancellation is located can inquire about the cancellation record - The country administrator has limited access to information	- Interested parties can inquire about detailed cancellation records - Automatic offset certificate function	
Regulation and Disclosure	- State and local administrators supervise and manage -No information disclosure function	-National, local and other relevant parties all kinds of data supervision -Disclosure of relevant information	