THE 2018 CHINA CARBON PRICING SURVEY
ROUNDTABLE ON MRV IN THE CEMENT AND ALUMINIUM SECTORS
SUMMARY OF DISCUSSION (DRAFT)

INTRODUCTION

On April 20th, 2018, China Carbon Forum (CCF) together with ICF, convened a roundtable of the ETS Industry Expert Panel in Beijing, which will help to inform the development of China's national ETS. The panel was established to support the 2017 China Carbon Pricing Survey project, and continues to inform the 2018 China Carbon Pricing Survey, which is sponsored by the Embassy of the Federal Republic of Germany and the Royal Norwegian Embassy, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and Energy Foundation China, and is jointly implemented by CCF and ICF, together with support from Tsinghua University China Carbon Market Center, Sinocarbon, and the Norwegian Environment Agency.

The roundtable focused on the topic of MRV in the cement and aluminium sectors, and involved a total of 27 senior experts and stakeholders in China's national ETS. Participants included representatives from: the National Centre for Climate Change Strategy and International Cooperation (NCSC); Tsinghua University Centre for China Carbon Market Research; industry representatives from China Building materials Federation, China Cement Association, China Building Material Test & Certification Group Co., Ltd, China Non-ferrous Metals Industry Association Aluminium Branch, Aluminium Corporation of China Limited, China Metallurgical Industry Planning and Research Institute and China National Chemical Corporation; ICIS, CCF, and ICF; as well as observers from International Emissions Trading Association (IETA) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). Please see Annex for the attendees list.

This report summarizes the major topics covered during the roundtable discussion, including industry experts' suggestions for non-power sector to participate in China's national ETS.

CONCLUSIONS

- MRV data at the installation level is more accurate regarding the emission boundaries, but this faces difficulties in data acquisition and collection. While China can refer to the EU experience of facility-level reporting, the systems are not yet in place to enable this across the country. Calculation of indirect emissions through electricity consumption is relatively accurate, however calculation of emissions from cement clinker production based on materials consumption is lacking.
- A uniform standard system for verification should is needed to guarantee the quality of MRV data. Accounting methods provided by the current guidelines are based on theory rather than practice, and reality often diverges from the standard, especially in relation to complex production processes. Understanding of the rules among the roundtable experts varied, and interpretation is inconsistent among authorities in different regions. As a result, verification agencies and authorities have handled the process differently and accounting results may diverge, posing a challenge for quota allocation.
- Carbon data management systems can help enterprises to manage their emission data better. Such systems help with data traceability, convenience of data management, accuracy of calculations, avoiding manual error, help realize big data analysis and provide early warning and avoidance of risk. Companies are concerned about cost reduction. If carbon data management systems can reduce operating costs, there will be greater willingness for their use.
- Enterprises think that the new monitoring plan will provide the basis for allowance calculation and allocation in the national ETS. It is informative, therefore, that the reporting requirements focus the facility-level data.
- Participants agreed that it is necessary to bring captive power plants in to the ETS, but arrangements need to be clarified, and some special circumstances may need to be taken in to account, especially for remote areas where captive power guarantees supply.
- A dynamic rapid-response mechanism should be established to solve real-time problems in the emission trading process. The capacity for effective feedback from industry should be developed, including intra-industry communication and online channels.

KEYNOTE SPEECH

Prior to the panel discussion, Mr. Zhang Xin from NCSC delivered a keynote speech, briefly reviewing the results of previous two rounds of round-table discussions and introducing several issues that need to be considered after the actual operation of China nationwide ETS. Mr. Zhang Xin pointed out that during the process of MRV, it is significant to bring the role of professional institutions into play to establish a uniform technical standard, and the market mechanism should be developed to solve some current problems in MRV industry.

In respect of MRV, professional institutions in relevant industries should be invited to make verification guidance for each specific industry. For example, verification standards for the power sector should be formulated by those specialized agencies in this sector to avoid the negative impacts on the operability caused by those who do not understand the expertise of the power industry.

The verification work should be transferred from a government service to a market-oriented work, giving full play to the role of the market. At present, some problems have arisen in the verification system. Besides strengthening industry self-regulation, it is crucial to establish a competition mechanism to encourage competition among verification agencies, in order to break down industry monopolies and increase the efficiency and effectiveness of MRV.

QUESTIONS AND DISCUSSIONS

The roundtable set up eight questions about the MRV of cement and aluminium industries and invited industry experts to express and discuss their views. This report summarizes participants' key perspectives on those questions.

Questions

1. Which department (or division) should be engaged in MRV-related tasks within a company?
2. At which level is it easier to define the emission's boundaries for MRV: group, entity, or installation?
3. What are the most critical technical challenges in monitoring, reporting, and verifying for the cement and aluminium sectors respectively?
4. How can we guarantee the quality assurance and credibility of MRV in the cement and aluminium sectors?
5. Is it cost-effective to establish the internal carbon data management systems for cement and aluminium sectors?
6. What do the cement and aluminium sectors think about the requirement for completing the monitoring plan?
7. What do the cement and aluminium sectors think about the policy for captive power plants to participate in the carbon market?
8. After the launch of national ETS, which areas do you require training on ETS in, and what do you consider effective training methods to be?

Views

1. **The data will be more accurate with the emission's boundary at the installation level but facing difficulties in data acquisition and collection.**

MRV for cement and aluminium currently has two tracks, which means that the MRV focuses on the total emission of the company at the level of incorporated company, and the emission data at the installation level will be the basis of allowance allocation. According to

the experience in ETS pilots, benchmark is more reasonable for allowance allocation, which can encourage enterprises to cut their emissions. Given that different enterprises have different industrial processes, if the emission's boundary for MRV was set at the group or entity level, the data of MRV may not be comparable. Therefore, the boundary should be set at the installation level to make the data comparable, which can serve allowance allocation better.

The data flow is crucial for the result of verification. The verification on data flow of industrial process can ensure the credibility of the data. China can learn from the experience of the EU in MRV and use the installation as the benchmark for data statistics. However, the data measurement at the installation level is not complete yet. There is still a gap between the ideal situation and the actual situation in China. It is quite difficult to acquire and analyse data at the installation level, though indirect emissions through enterprises' settlement with grid companies could be accurate. If there is no settlement at the installation level, it will be difficult to ensure the accuracy of the data. Taking the cement industry as an example, clinker cement production is mostly calculated based on the material consumption ratio with no actual statistics, so the data may not be accurate.

2. A normative standard system for verification should be built with a uniform standard to guarantee the quality of MRV data.

The current verification method is theoretical but less operational, which is hard to be used in verification work. According to the requirement of the supplemental data sheet, some detailed issues are still not clear. Sometimes, both experts and local authorities have different understandings on the same verification method and they may deal with a same issue in different ways. This will lead to results with mistakes and pose a challenge to the allowance allocation.

Verification agencies should have mutual verification and the competent authorities should conduct random inspections of the verification results of the verification agencies, in order to guarantee the quality of MRV data. But this method has low cost efficiency. The credibility of the data should depend on a standard system. The newly issued verification regulation emphasize the consistency within the industry. The central government should formulate

national uniform standards and conduct unified training on verification rules and methods, which will help the verification institutions to grasp the exact standards well.

3. **The carbon data management system can help enterprises manage their emission data better.**

The standardization process can be achieved through the carbon data management system. The advantages of this kind of management system are data traceability and the convenience of data maintenance. The system can make the calculation more accurate and avoid the error of manual operation, and it can also realize intelligent analysis of emission data, provide early warning for different situations and help enterprises avoid risks. In addition, enterprises are concerned about the cost reduction. If the carbon data management system can reduce enterprises' operation costs, their willingness to use the system will be much stronger.

The carbon data management system is crucial for the internal management of large enterprises. However, enterprises need to think in advance about how to manage their emission data and then later integrate data management ideas into the system software. The pressure of transaction and asset management requires those large enterprise groups to use management systems to track their carbon emission data. Emission boundaries for MRV could be set based on industry experience and verification experience and then placed into the system, which can be used as a verification tool.

4. **Enterprises think the new monitoring plan is set to serve for allowance calculation and allocation.**

The requirements of the new monitoring plan and its supplementary data sheet for the cement and aluminium industries, as well as technical details, were introduced. On this basis, the new requirements were summarised as follows: I) The new monitoring and verification requirement serves for allowance allocation, listing the emission categories that need to be included in the allowance calculation. II) The new requirement emphasizes the consistency within the industry and requires the consistency in calculation methods, selection of calculation formula parameters and other technology issues. III) The new requirement emphasizes the scientific nature of the data, such as providing a higher default value of the

low heat value of coal to encourage enterprises to fill in and report the actual measured data and make enterprises improve their emission cutting technologies. IV) The new requirement focuses more on the installation level, which will provide the basis for allowance calculation.

5. **The follow-up operation details for captive power plants to participate in ETS still need to be further clarified.**

It is crucial to bring captive power plants into ETS. Different types of captive power plants need to be distinguished. For example, whether the captive power plants that use blast furnace gas heat to generate electricity should be involved in ETS still needs to be clarified. Captive power plants were listed in the latest supplementary data sheet, but there is now clear rule of follow-up operation nor consensus on how to conduct verification. With specific details still uncertain, how to conduct verification and fill in the supplementary data sheet is one of the challenges at present. The small-scale thermal power plants in the alumina industry are mainly used for heating, and only a small proportion of these plants are used for power supply. It is not clear that whether these captive power plants would be ruled by some specific verification methods. In addition, the carbon assets of the electrolytic aluminium enterprises with captive power plants will increase intangibly if those captive power plants are allocated allowances separately. Whether to involve captive power plants in the ETS should depend on the usage of the power. For the internal allowance transfer, those corporation groups should develop their internal trading system to avoid increasing costs.

6. **A dynamic rapid-response mechanism should be established to solve real-time problems in the real emission trading process.**

Some new training methods can be adopted after the establishment of China nationwide ETS, such as regular communication within the industry and online communication. Besides advance capacity building, an effective rapid-response mechanism is also crucial to guarantee those specific operation issues of ETS could be answered in real time. Industries are also more concerned with the training of verification institutions and proposed to establish a uniform standard and procedure for carbon emission verification. Professional and uniform training sessions should also be adopted within each industry so that these

trainings can be more targeted and can ensure those verification institutions have better grasp of technical requirements.

AGENDA

Moderated by Liu Liang

9:00-9:30	***Registration***
	Tea & Coffee served
9:35-9:40	***Peter Edwards**, China Carbon Forum*
	Project Introduction & Self Introductions
9:40-9:50	***Zhang Xin**, National Center for Climate Change Strategy and International Cooperation (NCSC)*
	National Carbon Market Progress and Upcoming Priorities
9:50-10:10	***Tang Chunchao,** China Quality Certification Center (CQC)*
	Presentation: Specific requirements and key factors of Cement and Aluminium MRV
10:10-10:20	Tea & Coffee Break
10:20-12:00	Roundtable Discussion
12:00-13:00	Buffet lunch
13:00-15:00	Roundtable Discussion
15:00-15:20	Tea & Coffee Break
15:20-15:40	***ICIS***
	Presentation: Carbon price analysis of the EU ETS Market
15:40-16:20	Roundtable Discussion
16:20-16:30	Closing remarks and group photograph