THE 2018 CHINA CARBON PRICING SURVEY

ROUNDTABLE ON KEY GHG EMITTERS PREPARING TO JOIN THE ETS

SUMMARY OF DISCUSSION

INTRODUCTION

On February 1st, 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, the Royal Norwegian Embassy and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), 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 the preparation of non-power sectors for participating in the China's national ETS, 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 (TUCCM); industry representatives from China Building Materials Federation, China Cement Association, China Building Material Certification (CTC), China Non-ferrous Metals Industry Association, Chalco, ChemChina and China Metallurgical Industry Planning and Research Institute; consultants from ICIS, SinoCarbon, CCF, and ICF; as well as observers from International Emissions Trading Association (IETA), Embassy of the Kingdom of Netherlands, the Royal Norwegian Embassy and 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 sectors to participate in China's national ETS.

CONCLUSIONS

- While most industries have made significant progress in preparing for the national carbon market, there are still many high-level decision-makers in large enterprises who do not have a thorough understanding of the market.
- Many enterprises, especially those located in non-pilot areas, do not have specialized professionals in for carbon emission trading. While they understand how to conduct MRV of carbon emissions, and have undertaken energy-saving activities, they lack specific strategies for participating in the carbon market.
- Enterprises should accurately estimate their emissions abatement costs, so that they can optimize their trading strategies.
- The benchmarking method is the preferred method of allocation in order to achieve emissions reduction, but in some specific situations, such as for industries with relatively lower levels of emissions, allocation based on historical intensity may be appropriate.
- Fines for non-compliance are not an end in themselves. Combining the credit system and reputational risk with penalties may be more effective for large companies.
- Due to current lack of awareness of 'green finance' in energy-intensive industries, they have insufficient enthusiasm for such initiatives. Investors are also unable to see market returns immediately. The development of green finance should improve the innovation and promotion of low-carbon technologies, linking finance and technology.
- Training for enterprises is often ineffective because it was only aimed at the operational level, where there is a high level of turnover. Senior executives and directors should also be engaged in ETS capacity building, which can be combined with activities that managers would be more likely to attend, increasing its effectiveness.
- Capacity building should encourage enterprises to pursue emissions reduction rather than view the carbon market purely as a profit-making opportunity. The professional training for verification agencies should also be enhanced.
- The European Union's experience can provide reference for Chinese enterprises and enrich industries' understanding of the development of China's national ETS.

UPDATE ON ETS

Prior to the roundtable discussion, Mr. Zhang Xin from NCSC delivered a keynote speech, briefly reviewing the results of the first roundtable discussion in December, and introducing the results achieved and the issues encountered in the seven ETS pilot regions. Mr. Zhang then pointed out that the overall design of the national carbon emission trading system should focus on several issues, including improving the policy feedback system, development of key market factors, supporting the trading platform and physical trading system, the transition from pilots to the unified national market, capacity building and technical and financial preparation.

During the development of the national ETS, as the system coverage is expanded to involve more industries and the variety of products in the market enriched, we need to consider how to ensure price discovery. A reasonable carbon price is crucial for the stable operation of the national ETS. Current carbon prices in the seven pilots are formed through negotiations between two sides or reference to other off-exchange prices. These prices are predictable, and the market liquidity is limited. Therefore, these prices cannot reflect the real cost of cutting emission and the real market supply and demand relationship, and therefor do not provide a reliable basis to judge whether the carbon market is effective.

Mr. Zhang Xin said that a reasonable carbon price should reflect the real cost of cutting emissions. For the power sector, emission reduction costs vary due to differences in the units and power generation conditions. The estimated cost per ton of CO_2 is between RMB 80 to 400 yuan. In the future, if the coverage of the national carbon market expands to eight key industries, the estimated cost remains to be determined. At present, many companies may be able to calculate the cost of emissions reduction based on a single project, but they cannot make the cost of the whole production process clear. Therefore, they cannot adequately prepare for trading, and exchanges are also unable to predict the carbon price. This will pose a severe challenge for participation in the ETS and carbon asset management.

QUESTIONS AND DISCUSSIONS

The roundtable consisted of three sessions: the preparation of industry for participating in the national ETS, key issues for participation, and long-term perspectives on China's ETS. This report summarizes participants' key perspectives on each question.

Session 1: Industry Readiness

1. **What is the opinion of industrial enterprises towards the launch of national carbon market?**
2. **How do you assess the current capability of industrial enterprises/your company for joining the ETS? In your opinion, what is the most critical capability needed to be enhanced in order to join the ETS?**

1. **Different enterprises pay different attention to the start of the national carbon market.**

The steel industry attaches great importance to the national carbon market and has discussed and studied the impact of carbon emission trading on the steel sector and the countermeasures and strategies. Although there is not high awareness of the cement industry's involvement in the national ETS, in fact the industry has already voluntarily conducted preparatory work to build and improve the industry's internal carbon asset management. The non-ferrous metals industry, including electrolytic aluminium and copper smelting, has also done a lot to prepare for the national ETS. At the same time, many high-level decision makers of large enterprises lack awareness of the national ETS, although their operational staff have done preparatory work. In addition, many participants also said that industries are paying close attention to the allocation of allowances. Enterprises have an interest to receive more allowances, and hope to maximise profitability through rational management of carbon assets.

2. **Enterprises should carry out professional capacity building to ensure that priority is given to carbon emission trading throughout the enterprise.**

Most enterprises in the steel industry, especially those located in non-pilot areas, do not have specialized professionals in the field of carbon emission trading, and there is still much room for those enterprises to improve their professional capacity. In addition, many

enterprises have an understanding of how to calculate the carbon emission through participation in MRV and have carried out energy-saving work within enterprises. However, they usually do not have specific ideas and strategies on how to fully participate in the carbon market. Enterprises would like to see clear policy signals in order to take more active and targeted measures. Some major aluminium companies conduct trading in a coordinated manner and are actively targeting relevant areas. There are still some problems with the basic data measurement equipment in the chemical industry, and the industry needs to improve its statistics collection in order to ensure the authenticity of data. Current training is mostly targeted at operational staff, for whom there is a high level of turnover. Therefore, it cannot guarantee that enterprises have a clear and consistent understanding of the carbon market, and enterprises should pay more attention to ETS from the highest to lowest levels of the company and organize a specific team to take charge of ETS participation.

3. **Estimating expected carbon abatement costs can help enterprises optimize trading strategies and reduce the cost of cutting emissions.**

Due to the complexity of products and processes in various industries, different enterprises can estimate the cost of cutting emissions more accurately based on the actual situation and the boundary range of products or processes. After clarifying the expected cost of emissions reduction, enterprises can make more rational carbon emission trading strategies and decisions, based on a specific price at which to buy or sell allowances, helping to reduce costs through trading.

Session 2: Key Issues to be Addressed for Joining the ETS

1. **For different industries, what is the most feasible approach for allowance allocation in your sector?**
2. **What kinds of policy tool or market instrument would incentivize industrial enterprises to take part in trading in the carbon market? What is your company's/industry's plan regarding carbon asset management in the next couple of years?**
3. **Given the authority is going to enforce a heavy penalty on the fact of non-compliance, what sort of penalty (fine, blacklist, credit record, for instance) would be more deterrent to non-compliance enterprises?**
4. **Do you understand the concept of green finance? Do you think that green finance could play a role in pushing forward the transformation and upgrade of traditional industrial sectors? Have you been approached by any financial agency in terms of green finance?**

1. **Benchmarking is the preferred allocation method to achieve emissions reduction, however in specific situations allocation based on historical intensity may be appropriate.**

For energy-intensive industries, the benchmarking method is the best way to allocate allowances, regardless of the complexity of industrial processes, in order to ensure that the ETS achieves its function of achieving emissions reduction. On the other hand, industries with relatively low energy consumption and emission levels could adopt the historical intensity method for allocation. In addition, different benchmarks can be considered for different industry processes. The cement industry also preferred to use the benchmarking method, while warning that it may be detrimental to the development of the cement if enterprises cannot obtain enough allowances. If benchmarking is used, the process for setting the benchmark level is important.

According to feedback from enterprises in the cement industry, the benchmarking method is more appropriate, but it is necessary to ensure that the data is correct in order to ensure fairness, emphasizing that the allocation method will only work if the emissions data is accurate. While the national ETS aims to cap the total carbon emissions, the benchmarking method has relatively weak control over the total amount of carbon emissions. Though this method has a good effect on reducing emissions and phasing out production capacity, it

does not take into account the situation of discontinued production due to environmental factors. On this basis, the historical intensity method is more appropriate for those industries with higher emissions. In addition, Mr. Zhang also said that the benchmarking method requires consideration of coordination between the actual situation and policy. For example, in some provinces, actual energy consumption is lower than the standard set by the NEA. If the benchmarking method is adopted in these provinces, all enterprises will have surplus allowances, leading to market failure. Therefore, the choice of the benchmarking method or the historical intensity method needs to be determined based on the industry-specific situation and industry production.

2. **Fines for non-compliance are not an end in themselves. Combining the credit system with penalties may be more effective.**

Among the seven pilots, only Beijing has issued fines for enterprises. Currently fines in Beijing are three to five times the market price, and the specific amount depends on the discretionary power of the exchange. In the first year, five enterprises in Beijing were punished and fines totalled approximately RMB 7 million. There is also legal support for Beijing to take disciplinary measures in the form of fines because a resolution was passed by the Standing Committee of the Beijing People's Congress. If there was no legal support, the fines would have a ceiling of RMB 200,000.

Most participants agreed that punishing enterprises with fines has the fastest effect, but that the fine is not an end in itself. Some participants suggested that the penalties for failure to perform should be combined with corporate credit. For an enterprise with large assets, fines may have a limited effect, unless the fine is significant. However, a company's reputational risk and credit record may have a greater impact on the behaviour of such enterprises. For example, a bad credit record will affect the enterprise's bank loans, tax incentives, assessment for awards and so on. In addition, some participants believe that the problem should be solved through discussions first, and if these are ineffective, other punishment could then be taken.

3. **The development of green finance should improve the innovation and promotion of low-carbon technologies, linking finance and technology.**

The People's Bank of China has issued a green finance research report and the Beijing Environment Exchange has also issued a report on China's carbon finance development. However, whether so-called green bonds and loans are considered "green" is currently determined by the enterprises themselves. So, we need third-party agencies to adequately verify whether a loan is green or not. In order to promote the development of green finance, the primary task is to formulate standards and then third-party agencies can provide green financial services. This process is currently underway, under the direction of the Green Finance Committee, headed by Dr. Ma Jun. In addition, some enterprises face significant challenges. Even if they meet the green standards, they still cannot get loans from banks; meanwhile large SOEs can obtain loans due to their credit history, and they do not need to meet green standards at all.

Green finance is one of the major elements of the green and low carbon, circular economy. At present, the China Banking Regulatory Commission has formulated relevant standards. Enterprises that meet the standards can get funds through banks. However, due to the current lack of awareness of green finance in traditional energy-intensive industries, their enthusiasm for such initiatives is not sufficient. Investors also cannot see market returns immediately and market expectations are insufficient. The green finance market should improve the innovation and promotion of low-carbon technologies, linking finance and technology. The allocation of allowances and the indicators of energy-saving should effectively promote enterprises' understanding of the green financial system.

Session 3: Expectations and Suggestions

1. **What is your expectation of the timeline of the national ETS to cover more industrial sectors?**
2. **What is your practical demand for capacity building on ETS in terms of topics and formats? Are you comfortable using online training systems for ETS? How far are you interested in learning from international experience, in particular from the EU?**
3. **What is your suggestion on the enhancement of communication with policy makers in terms of ETS?**

1. **Besides operational staff, senior executives and directors should also be engaged in ETS-related capacity building.**

All participants agreed that carbon trading-related capacity building should cover all industrial sectors. Currently the Beijing Environment Exchange conducts training every year for industry. The training targets different audiences: a full-day training for operators, focusing on specific operational skills, and a half-day training for senior managers and directors, focusing on macroeconomic policy. These two kinds of training have different aims. The first is to improve the level of operational practices, and the second is to provide senior managers with information relevant for their understanding of the ETS.

According to previous experience, training for enterprises is often not effective, because the training was only aimed at operators at the implementation level. If capacity building can be combined with activities that high-level management would often attend, such as industry association forums, it may have more effect.

2. **Capacity building should encourage enterprises to pursue emissions reduction rather than view the carbon market purely as a profit-making opportunity. The professional training for verification agencies should also be enhanced.**

Most companies currently rely on third-party agencies for verification but are not able to conduct self-examination. Many large companies pay attention to the use of carbon assets in order to make money, but rarely take effective measures to reduce carbon emissions. In terms of capacity building, one key issue is to use data to encourage enterprises to undertake emissions reduction.

Training for verification agencies is also very important. It is difficult for non-professionals to reliably verify data for specific industries. For example, the industrial processes in the chemical industry are very complicated, but there are not a large number of inspectors who understand these processes. Therefore, the verification agencies should strengthen their professional capacity.

Participants generally believed that online training is a good method and is easy to use. Participants also suggested that training can be designed differently for specific industries

and target groups. For example, policy-level training is suitable for high-level managers and professional training can be conducted for third-party verification agencies.

3. **The European Union's experience can provide reference for Chinese enterprises and enrich industries' understanding of the development of China's national ETS.**

Energy saving can reduce operating costs for enterprises, so many enterprises have great demand for energy saving and emission reductions. The EU has mastered advanced technologies in the field of energy saving, so there is certainly demand for such information from China's domestic companies. China and the EU have different systems, so when EU experts discus MRV and other related issues, it may not be in line with China's circumstances. However, European experts can share relevant case-studies and experiences, especially from the early stage of the operation of the EU ETS when companies were dealing with issues closer to those which China's are currently dealing with. This may provide some inspiration to Chinese companies. Such training does not need to discuss the details of technology, but can enrich industry's overall understanding of the carbon trading system. In addition, this kind of capacity building does not necessarily have to be taught in classes or with a mandatory output, but can instead be a platform for providing resources and sharing ideas.

ANNEXES

AGENDA

Moderated by Liu Liang, ICIS

9:30-10:00	***Registration*** Tea & Coffee served
10:00-10:10	***Peter Edwards**, China Carbon Forum* Project Introduction & Self Introductions
10:10-10:20	***Zhang Xin**, National Center for Climate Change Strategy and International Cooperation (NCSC)* National Carbon Market Progress and Upcoming Priorities
10:20-12:00	Roundtable discussion (Question Set Sections 1&2)
12:00-13:00	Buffet lunch
13:00-14:15	Roundtable discussion (Question Set Section 2 Continued)
14:15-14:25	Tea & Coffee Break
14:25-16:25	Roundtable discussion (Question Set Section 3)
16:25-16:30	Closing remarks and group photograph