THE 2017 CHINA CARBON PRICING SURVEY
ROUNDTABLE ON PERMIT ALLOCATION
SUMMARY OF DISCUSSION

Introduction

On 12th December 2016, China Carbon Forum convened the first roundtable of the ETS Expert Panel, which will act to help inform the policy-making process of China's national ETS. The expert panel is part of the 2017 China Carbon Pricing Survey project, which is jointly implemented by China Carbon Forum and ICF, together with SinoCarbon, the Tsinghua University China Carbon Market Center, and the Dutch Emissions Authority. The 2017 China Carbon Pricing Survey project sets out to provide a transparent channel for China's policymakers, carbon market participants, investors and international observers to gain quantitative and qualitative insights in order to support domestic carbon market policy, design and implementation, increase the level of transparency and confidence in the National ETS, and motivate entity-level investment decisions in China's carbon market.

The first roundtable focussed on the topic of the allocation of allowances under the national emissions trading scheme, and involved a total of twenty-one senior experts and stakeholders in China's national ETS. Participants included representatives from: the National Centre for Climate Change Strategy and International Cooperation (NCSC); the Beijing Development and Reform Commission (DRC); industry representatives from the electricity, petrochemicals, chemicals and aviation sectors; experts from Tsinghua University, the Dutch Emissions Authority, Sinocarbon, ICF, GIZ and China Carbon Forum; stakeholders from the Hubei Carbon Exchange and Guotai Junan Securities; as well as observers from the British and Norwegian Embassies in Beijing.

This report will be followed in coming months by summaries of roundtable discussions on the topics of monitoring, reporting and verification (MRV), as well as ETS legislation. Finally, a report on the results of the 2017 China Carbon Pricing Survey will be released mid-year.

Conclusions

- **Benchmarking vs historical intensity allocation:** While most stakeholders, including industry, recognise the advantages of using benchmarks for allocation, many industries object to benchmarking at the start of national ETS in 2017 due to unavoidable factors such as varying length of industrial processes and product types. They therefore prefer a grandfathering approach to start with based on historical emissions intensity with incremental annual improvements that might later on lead to increasing of benchmarking as an allocation method.
- **Historical data is not consistent:** Current historical data is not always reliable given that there wasn't adequate monitoring in place until recently. This makes the setting of reasonable benchmarks difficult, and requires the use of default values for calculating emissions rather than actual values. The systematic process that has been adopted by NDRC Climate Change to conduct verification of historical emissions data from covered sectors and sub-sectors as part of the integral preparation for the national ETS is considered a good approach to improve data quality and reliability over time that can further inform benchmarking development.
- **3rd party verification needs to be transparent:** It is vital that the methods used for measuring and monitoring data in the future are verified by well-trained and accredited third-party professionals in order to ensure transparency. A strong accreditation system and oversight is in the preparation to be part of national ETS and will increase confidence in the market.
- **Managing benchmarks:** The revision of benchmark values is very important, in order to ensure that targets are being met and that changed conditions are appropriately accounted for. Therefore, the frequency of revision should be given due consideration.
- **Current data guidelines insufficient:** The current monitoring and reporting guidelines did not require sufficient detail for supplementary data, which is needed to help fill the gaps in historical data. Differences in geographical and operational boundaries are also not adequately accounted for. Thus, ETS legislation should consider addressing this problem in order to ensure clear, reliable data. The existing monitoring and reporting guidelines should be further enhanced and build on China's practical experience, context and lessons learnt from the first years of the pilots and national ETS.
- **Stakeholder consultation:** Considerable engagement between stakeholders on ETS implementation has been organised in Beijing. In addition, the general consensus of roundtable participants was that the relevant industrial associations should work closely with the government in relation to allocation, to ensure that the rules are set simply and transparently at the beginning of the national ETS. The role of sectoral associations coordinating with central government regulators and local government competent authorities should be incentivised to allow for an effective implementation of the ETS.
- **Accounting for regional differences:** Views differ on the question of allowing for allocation to reflect varying levels of capacity between regions and/or industries. Some believe that it would be difficult to implement and

distort the market. Some level of flexibility for industries in poorer areas is considered important, however. To avoid potential distortions in addressing regional disparities across China and a race to the bottom, the regulators should define what are the minimum requirements that should be achieved consistently by any province or region. They should also allow for those regions that are more advanced, or in a position to do so, to be more proactive and ambitious, going beyond the legal requirements and stepping up their level of ambition to decarbonize faster their respective regional/ local economies.

- **Auctioning should be encouraged:** Participants identified a preference for introducing auctioning of allowances when possible, in order to maximise fairness. Enabling conditions for utilisation of an increasing percentage of auctioning over time should be created from the start of national ETS.
- **Treatment of new entrants:** Several participants also suggested that new companies/entrants should be treated differently to existing companies, in order to increase the market's effectiveness. Given that grandfathering is not an option for new entrants, benchmarking could be first used for these entities before its use is expanded to existing companies.
- **Synergy with complementary policies:** A key role of the ETS is to support China's emission reduction targets and so when deciding on allocation methodology, approaches should be taken that are also synergetic with other emission reduction policies and targets, such as a reduction in coal usage.
- **Avoid complexity at the beginning:** In general, simplicity is preferable at the start of national ETS. If the methodologies employed are too complicated then the government may face additional unnecessary work when evaluating the results; not to mention when handling complaints/lobbying.

The national ETS: Recent progress and upcoming priorities

This first roundtable focussed on the topic of the allocation of allowances under the national emissions trading scheme, and aimed to facilitate understanding and consideration of the views of representatives of major industries to be covered by the ETS, as well as other market participants.

To date, progress has been made on many of the key aspects of the national scheme, including the following:

1. Top-Level Design: The draft ETS regulation has been submitted to the State Council and hopefully will be approved in 2017. The State Council has placed it high on their annual agenda.
2. Cap setting: in the central government's 13th Five-Year-Plan, there is very clear target for carbon intensity reduction by 2020 (18%). It has been decided that the contribution from enterprises covered by the ETS will be around 19%, and the national ETS will cover around 50% of China's total carbon emissions.
3. MRV: China has published 24 MRGs (Monitoring and Reporting Guidelines), and the official management documentation for verification body supervision will be published soon. The supervision of verification bodies will be jointly managed by the NDRC and the Certification and Accreditation Administration (CNCA).
4. Allocation: it has been decided that the national ETS will apply both benchmarking and historical intensity methodologies for allocation. A local adjustment index which had previously been proposed, will be not be implemented, which means the flexibility for local DRCs in affecting allocation will be limited. There is also an adjustment index which has been proposed to be administered by the NDRC, but we don't yet know how that will be managed between different industries or even within an industry. We will know more about this once the national ETS allocation plan is disclosed soon.
5. Registry: the registry will be based on the CCER registry system, with some appropriate adjustments made. However, a final decision on the arrangements has yet to be made.
6. Trading platform: to date, the NDRC has approved 9 trading platforms and is expecting them to compete with each other once the national ETS is up and running. The existing trading platforms are not making much money - just enough to cover payroll expenses. Hence, it is expected that there will be fierce competition between them.
7. Provincial preparation work: now every province is busy preparing their local implementation work plan, supporting the trial allocation for the national ETS, capacity building for their companies etc. Some of the non-pilots are lagging for various reasons.
8. Transition from pilot to national scheme: several studies are being undertaken, in order to best utilise the positive experiences from the operation of the pilots and best practice for managing the market. Also, the pilot teams are supporting non-pilot areas to conduct trial allocation.

Next steps, and areas of priority include:

1. Data collection and MRV. In addition to the submission of historical data, enterprises are required to submit "supplementary data" where the initial submission is insufficient to support the allocation of allowances.
2. Management of allocation and allowances.
3. Capacity building for the market practitioners.
4. Ensure that local implementation work plans are feasible and reliable, especially for allocation.
5. Management of the benchmarks, including the methodology to set benchmarks, the initial values, and a process for updating them.

Questions

1. What are the main practical challenges in China for data gathering to support a benchmarking allocation approach in the context of the National ETS?

- There are several key challenges in relation to allocation, and participants suggested that it is important that the allocation method chosen varies **depending on the availability and type of data present**; not the other way around. In general, it was suggested that it would be better to set the rules simply and transparently at the beginning of the national ETS. If the allocation methodologies are complicated, the government may face a huge workload in managing the process, as well as dealing with complaints/lobbying.
- Roundtable participants agreed that reliable historical data is a very important foundation for allocation. However, the **current data verification capacity varies substantially** between different provinces and sectors. Historical data is also lacking in accuracy due to the fact that there previously was **no adequate monitoring plan in place**, and channels for reporting statistics vary in their standards.
- The issues with data quality, combined with the fact that the verification service fee is low, mean that the danger of "moral risk" – which could include fraud, or poor accounting practices – is high.
- Given the previous lack of monitoring plans, the information required to support allocation are not fully reflected in the MRV system. The Monitoring and Reporting Guidelines (MRGs) published to date also do not provide adequate guidance on data collection for the purpose of supporting allocation, with the largest problem arising from the differences in **geographical and operational boundaries.**
- It is important that there is **sufficient and reliable supplementary data** collected in order to improve the transparency and accuracy of allocation, rather than relying on default values only. The use of default values is due to some covered entities lacking the capacity to accurately measure emissions. In order to assist these companies, the government has set default values based on industry averages or available data.
- The main purpose of re-collecting supplementary data is to try to fill the gaps left by taking only historical data. But again, **the guidance for supplementary data is missing** – there was no such guidance published in the MRG before the need for such data was realised. Also, there is no verification guidance for the supplementary data. Hence there is a real problem in that **the allocation process lacks sufficient accurate, reliable data**.
- Participants also suggested that more comprehensive supplementary data would also **allow for fairer allocation** - for example in the future buildings could be categorised based on their different heating methods. To remedy this situation, the **installation** and **maintenance** of adequate measuring meters is key.
- Experts suggested that the benchmarking allocation approach is a better way to **achieve the goal of carbon pricing**, given that it provides companies with a clear quantified target and can provide a positive political signal to the market.

- However not all industries are able to apply benchmarking. Participants noted that the methodology used to calculate the benchmarks in manufacturing industries cannot always be applied to service industries.
- The meeting heard that Beijing has already applied 93 benchmarks under its pilot ETS, and its experience suggests that benchmarks should be **representative of the current industry situation**, while also being feasible to achieve.
- In addition, the frequency with which the relevant authority updates the benchmark values should be considered carefully. As a rule, the benchmarks for new industries, processes, installations and products **should be regularly revised and updated**. It is vital that a comprehensive monitoring plan is in place and that a regulatory framework for this is created so that it can be implemented in a reliable manner. It was suggested that one method to enhance reliability would be to set the benchmark as a ranking rather than an absolute emissions value.
- Currently, national standards are not sufficient to support the verification, and a third-party accreditation system is lacking. The central and local government **will likely play the role of a 'fourth party'** in order to verify the work of verification bodies. This is a huge burden on the government, especially with a lack of cross-checked data to support the work.
- There is also insufficient data disclosed to the market in order to facilitate sound decision-making on trading strategies. **The lack of transparency also creates market distortions**. Participants, therefore, suggested the use of **simple methodology at the beginning of the scheme**.
- Certain sectors may have particular characteristics which make the application of benchmarking difficult. In terms of allocation, the panel suggest that it is important to consider the fact that the iron and steel industry has many long processes, while benchmarking is typically better applied in short-process industries. Also, the process for different companies is quite different, and it would therefore be very **difficult to find a benchmark that is sufficiently representative**. Therefore, companies in the iron and steel industries consider that allocation based on historical intensity is a better solution. The panel also stated that DRCs in both pilot and non-pilot regions support this approach
- Another issue with the use of benchmarking in the iron and steel industry is that a lot of companies have total emissions data but not for multiple products from a single production line. Deciding on **benchmarks for particular products will therefore be difficult**.
- At the same time, **companies in the sector are aware of the relative fairness of benchmarking**. Benchmarking could help to account for the early emission reduction actions of some companies, and encourage companies to do more to reduce their emissions.
- In addition to these industry characteristics, the iron and steel industry is currently under great pressure to reduce overcapacity. Hence, production output has varied significantly in recent times. Companies face a huge additional risk in allowance shortages and so **the use of historical intensity for allocation could partially reduce this risk**.

- In relation to the petrochemical sector, 50%~ 52% emissions of products will use benchmarking for allocation, while the rest will use historical intensity. Participants suggested that the regulator **should find a good balance between the two** regarding different reduction requirements.
- Currently **the quality of data is not very high**, partially due to different statistic channels that are in place – even at the highest level. The continuity and consistency of data should receive significant attention. Also, ways to cross-check the data should be identified, in order to validate its quality.
- Monitoring plans should be drafted, implemented, and managed by qualified staff. Hence, **capacity building for those staff is very important**. Also, it is important that professionals are trained correctly in how to use, monitor and calibrate measuring meters.
- For the aviation sector, the Civil Aviation Administration of China (CAAC) has data, e.g. on fuel consumption, but data sampling in aviation is difficult due to the huge amount of data that needs to be verified. Hence, **avoiding the risk of unethical practices in this area requires attention**. Understanding of MRV practices varies between aviation companies. Therefore, there needs to be further capacity building for staff in the aviation sector.
- The power sector makes up 40% of the total carbon emissions of China, and the allowances owned by the power sector accounts for 70~80% of the total national carbon market. Hence the participation of the power sector is very important to the success of the ETS. The power sector has 30~40 years of data collection from different perspectives, **however data gaps still exist**.
- Power companies' staff are not particularly familiar with ETS - their job is merely for compliance. Because of the non-compulsory requirements, most of the power companies **will not perform** real measurements but **rely on default values instead**. This means that real-time, up-to-date data cannot be collected, thereby increasing the difficulty of updating benchmarks in a timely manner.
- The national "GB" standard does not possess significant authority compared to the ETS monitoring and reporting guidelines. In the future, there should be **a clear definition of the relationship between these two standards**.
- China's coal consumption for electricity supply was 315 grams per kWh in 2015, which is already at the forefront globally. The power sector hopes that **the ETS can further support improvements in the structure of the energy sector**.
- With regard to the chemical industry, the capacity of verification bodies varies quite significantly. The complexity of the chemical industry puts further pressure on verification bodies – large amounts of raw materials, complicated processes, multiple products etc. Therefore, benchmarking is perhaps not the best allocation method for the chemical sector.
- Under the 'new normal', companies are thinking more about how to survive; **too much data collection is considered a burden** and won't be welcome. This is not helped by the fact that several ministries are also asking for similar data relating to energy consumption and emissions.

- There is currently not enough transparency about exactly what types of emissions are eligible for allowances, with the outcome that enterprises do not understand how they can submit the **same amount of emissions** but receive **different amounts of allowances**. This has the effect of decreasing enterprises' overall satisfaction with the system; not to mention placing unnecessary strain on to local DRCs to deal with complaints.
- Benchmarking is a good approach for industries with a **limited number** of products that have in place **clear boundaries between production steps and processe**s. Observing the EU ETS' development phase, we can see that it takes significant time to develop a mature system - including deciding on how to divide products and sub-installations and how to define clear and uncontroversial benchmarks. It is also clear that the selection of benchmark values is important and thus needs much time and consideration. **Ch**ina needs more time to **build a more solid foundation for the data** for this purpose.
- According to the panel, lit has been decided that historical intensity will be applied to airports and benchmarking will be applied to airline companies. There are no large disparities in the aviation sector, making benchmarking easier to apply.

2. Have you conducted any rounds of stakeholder consultations within your region/ industry to discuss allocation approaches for the national ETS?

- **All of the industry association representatives** present at the meeting indicated that they had conducted stakeholder consultation with their members. The views canvassed are presented in the answers to Questions 3 and 4.
- In addition, the Beijing DRC described its consultation process, which involved inviting the Beijing Municipal Commission of Economy and Information Technology, the Beijing Municipal Commission of Commerce, and several other relevant departments for discussions.
- Roundtable participants emphasised that due consideration should be given to **allowing the industrial associations to play a role** in the consideration of allocation.

3. Do you think that China's regional disparities can be addressed/ taken into account in the CETS allocation methodologies?

- Consideration of regional disparities may include issues such as varying oxidation rate in areas of different altitudes, water-content coefficient for coal in humid areas etc. Participants suggested that the effects that regional and industrial disparities may have on allocation **needs more research and impact analysis**.

- China needs time to develop the system and the pilot experience shows that benchmarking may not be the best option for certain industries. The capacity for adjustment for regional and industrial disparities is limited, and may accentuate disparities rather than resolve them.
- According to the group, allocation must serve the purpose of meeting the cap, while adequately considering regional and industrial disparities. Some flexibility is better when we cannot decide immediately. **The policy should balance both its stability and a positive price signal** at the same time.
- **Accounting for disparities within an industry is not recommended** since too much complexity could cause significant initial delays in implementation, as well as difficulties in ensuring fairness.
- Participants suggested that it would be **best not to create a division between eastern and western provinces**, but rather to keep a wholly inclusive national market. This acknowledges that even in the western parts of China, there are also very advanced companies, or branches of advanced companies, which makes it very difficult to fairly deal with regional disparities. If regional or sectoral disparities are reflected in the new system, it may erode confidence that one unit of allowance will be equal to one ton of CO_2 across the country.
- One suggestion put forward at the meeting was that perhaps the best way to adjust for regional disparities, would be **via the auctioning mechanism** - taking the national plan for industry re-structuring in to consideration.
- According to the panel, regional **disparities in the iron and steel industry are quite large**. Therefore, developing a reasonable and fair adjustment index would be extremely complicated.

4. Do you think that allowance allocation methodologies can/should create innovation and low carbon incentives?

- No matter how allocation is determined, the panel advised keeping in mind that **it should serve the cap and support real emissions reduction**, in line with the original purpose of developing a carbon market. The goal of an ETS is not the trading itself.
- For this reason, some participants recommended the **consideration of auctioning for allocation** in order to maximise the incentive for emissions reduction.
- Some panel members suggested that the carbon cost **will not be significant enough to change companies' major investment decisions** in the short term, e.g. when deciding on sites for a new plant etc.
- However, in order to realise incentives in an integrated way, the ETS **should form positive synergies** with other emission reduction policies. **The relationship** between the carbon market, energy-use trading and energy saving trading **should be clear,** and allocation should be consistent with the objectives of other policies, e.g. **not encouraging coal consumption**.

- **Relevant information on synergies** could support a better approach to allocation. The emission targets must also be considered in the industrial five-year plan and other regulations.
- It was suggested that ETS, as an incentive measure, has high administrative and management costs. Other measures such as **compliance information disclosure** or linking the compliance record to a companies' **financial credit system** (e.g. bank loan credit) might prove to be low cost alternatives.
- Information disclosure and clear quantified targets for the companies are important in order to create the right incentives. **Auctioning may also be a good way to promote transparency** in this regard. Results also need to be tracked in order to evaluate the system, and to react to feedback received.
- It was also mentioned that the value set for benchmarks may not be uniform; it may **vary between 8%~10%** depending on the concentration ratio of different industries.
- When setting up a system, we must **aim to avoid incidents such as fraud** which undermine confidence in the system, as well as avoid causing too many bankruptcies. This would negate the policy's ability to provide the correct incentives.
- If many companies face a significant shortage of allowances, the magnitude of complaints may bring **risk to the system before it matures**. There should be research on the balance of different shortages among different sectors, and measures to deal with it.
- There may also be a **need for stress testing** for the system and each industry in order to avoid systemic risks. Some participants suggested that the requirements for big companies and small companies should be different.
- Deputy Director General Jiang Zhaoli has mentioned **an innovative approach allocation** – rolling allocation for different batches of industries on a monthly or quarterly basis; however, this would require a lot of work from DRCs and high management skills from staff. More capacity building might be needed in order to achieve this.

ANNEX

Attendees

Chinese experts:

- **Prof. Zheng Shuang**, National Center for Climate Change Strategy and International Cooperation (NCSC)
- **Liu Haiyan**, National Center for Climate Change Strategy and International Cooperation (NCSC)
- **Qian Guoqiang**, Deputy General Manager, SinoCarbon

- **Huang Xiaochen**, Analyst Assistant, SinoCarbon
- **Li Yongliang**, Director, China Association of Petro Chemical Industry
- **Ma Xiangshan**, Tsinghua University (formerly Director, Climate Change, China Science and Technology Institute of Civil Aviation)
- **Yang Guangxing**, R&D Director, China Hubei Emission Exchange
- **Chen Caocao**, Beijing Development and Reform Commission (DRC)
- **Tong Yan**, Guotai Junan Securities
- **Zhou Sheng**, Vice Professor, Tsinghua University
- **Shi Lina**, HES, China Electric Council
- **Wu Zhenhua**, CHEMCHINA
- **Hou Aijun**, Sino-German Project Capacity Building for Emissions Trading Schemes (ETS) in China, GIZ
- **Shen Ying**, Senior Consultant, ICF

Foreign experts:

- **Tor Skudal**, Environment Counsellor, The Royal Norwegian Embassy, Beijing
- **Jonathan Farr**, 1st Secretary Climate Change, The British Embassy, Beijing
- **Steven Bank**, Senior Emissions Trading Advisor, The Dutch Emissions Authority
- **Dimitri de Boer**, Vice Chairman, China Carbon Forum
- **Peter Edwards**, General Manager, China Carbon Forum
- **Huw Slater**, Research and Projects Manager, China Carbon Forum
- **Jamie Bevan**, Intern, China Carbon Forum
- **Renato Roldão**, Consulting Director – Climate Change, ICF
- **Dian Phylipsen**, European Commission *(present for the dinner only)*
- **Monique Voogt**, European Commission *(present for the dinner only)*

Agenda

Moderated by Renato Roldao

14:00- 14:10 ***Prof. Zheng Shuang**, National Center for Climate Change Strategy and International Cooperation*
National Carbon Market Progress and Upcoming Priorities

14:10- 14:20 ***Dimitri de Boer**, China Carbon Forum*
Project Introduction

14:20- 15:15 Roundtable discussion – Challenges for data gathering to support allocation in the National ETS

15:15- 15:30 Tea & Coffee Break

15:30- 16:45 Roundtable discussion – Stakeholder consultations; Regional disparities; Incentives for innovation

16:45- 17:00 Closing remarks

17:00- 19:30 Dinner