China Carbon Forum
中国碳论坛

2017 CHINA CARBON PRICING SURVEY

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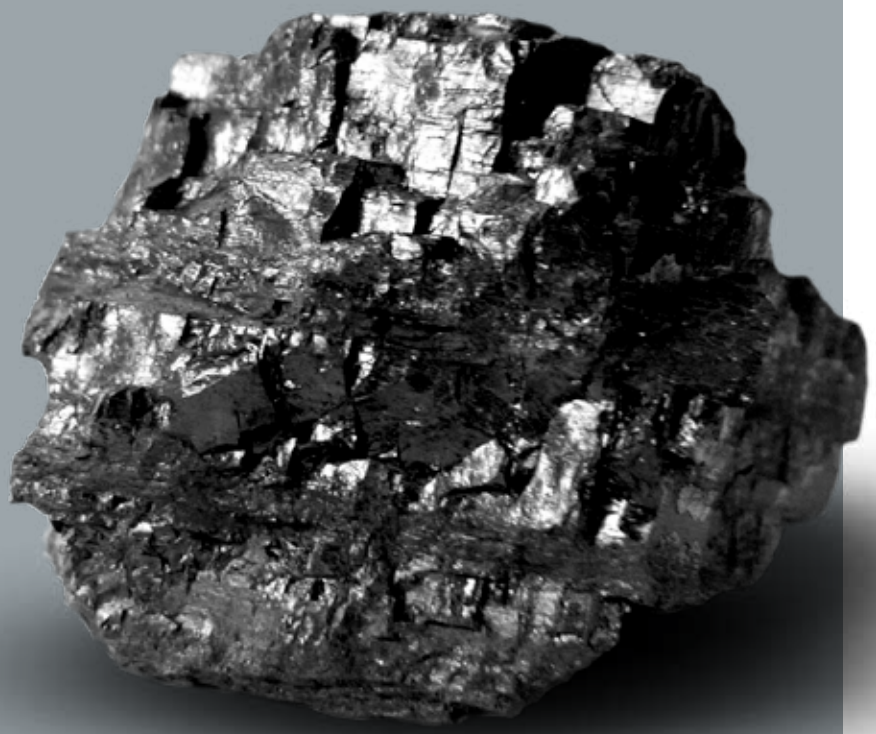

Executive Summary

2017.

2017 China Carbon Pricing Survey

Executive Summary

This report is a summary of results from the *2017 China Carbon Pricing Survey*, jointly conducted by China Carbon Forum (CCF), ICF and SinoCarbon, with inputs from the Dutch Emissions Authority, the Tsinghua University Center for China Carbon Market Research, and other experts.

The survey, undertaken from late March to early July 2017, obtained expectations about the future of China's carbon price from 260 stakeholders. The survey is a collective "best guess" by these stakeholders. It does not claim to be representative, but it does provide a clear indication of dominant stakeholder views about the likely future of carbon pricing in China. The project builds on similar surveys conducted in 2013 and 2015.

This survey report comes at a crucial time of global interest in China's climate action, as the USA announced in mid-2017 its intention to withdraw from the Paris Agreement, and an announcement of the start of a national ETS in China is expected still in late 2017.

China is about to launch the largest carbon market in the world

During 2013 and 2014, pilot carbon markets were launched in four municipalities (Beijing, Chongqing, Shanghai and Tianjin), two provinces (Guangdong and Hubei) and the special economic zone of Shenzhen. Each of the pilots have now completed either three or four compliance cycles, providing useful information for future policy decisions.

The *2013 and 2015 China Carbon Pricing Surveys* asked respondents for their expected carbon prices in the pilot regions for future years. Predictions can now be compared with real prices up to 2016. The actual average prices in 2016 were well below expectations. Respondents to the 2013 and 2015 survey expected that the prices in the pilots would gradually rise, while in fact they steadily decreased from 2014 to 2016.

Since President Xi Jinping announced in 2015 that China would launch a national ETS by 2017, preparations for China's national carbon market have intensified. Requirements for high-carbon emitting companies to report their historical emissions data were introduced, and that data has to be subject to an independent verification process. The government is in the process of establishing a legal basis for the ETS, now at the State Council level. A timeline for a formal law to be issued has not yet been provided, however. Capacity building for carbon market stakeholders has been underway for some time, and is increasing through the establishment of regional capacity building centres in a number of provinces.

The sectoral coverage at the beginning of the national ETS is not yet clear. Eight major sectors are required to report their emissions, and are expected to eventually be included in a national system. However, recent reports have suggested that as few as one to three industries may be covered in the system's opening phase. Draft allocation plans for three sectors (power, cement and aluminium) were released by media in May 2017. The plans specify benchmarks for each sector and the methodology for calculating allowance allocation. Even if only the power sector is included at the beginning of the national ETS, it will still be the largest in the world by a large margin - the emissions covered would be about twice as much as are currently covered under the EU ETS.

Government guidelines on green finance released in 2016 suggest that support may be provided for the development of a more diverse range of financial products in the carbon market however these are not expected to be introduced from the start of national ETS.

Respondents

The survey received 260 responses from professionals in a range of sectors, including industry (26%), consultancies (25%), academia (10%), financial industries (7%), trading platforms (7%) and NGOs (6%). Other respondents include those from research institutes, local and national levels of the Chinese government, and multilateral/bilateral development organizations. 83% of covered industry respondents expected to be included in the forthcoming national ETS, with 59% of them having participated in the pilots. It is likely that on average, the industry respondents which responded to the survey have more experience, are at a more advanced stage of preparation, and have more positive views towards the carbon market than those which didn't respond.

Expectations about the national carbon market

The Chinese government has recently reaffirmed at COP23 that the national ETS is still expected to be approved in 2017. However, when asked by when China's national ETS will be fully functional, only 47% of respondents expect this to happen by 2020 or earlier. A further 44% of respondents expect a fully functional carbon market between 2021 and 2025.

So far, the legal basis for the carbon market is not clear. A large majority of respondents (63%) believe that the legal basis for the national ETS should be a national law on climate change passed by the National People's Congress. About a third of respondents (32%) believe that a regulation by the State Council would be sufficient. These results suggest that if an actual law is not immediately possible, at the very least there should be regulation provided by the State Council at the beginning of the ETS.

About half of the respondents consider that trading in the national ETS should occur across several regional platforms, while 37% think that there should be one national platform. 14% of respondents think that there should be emissions trading exchanges in every province.

The majority of respondents (89%) believe that all or part of unused allowances should be bankable for companies previously covered by the pilot systems that will transfer to the national ETS. Respondents expect that companies will be able to transfer assets from the pilots into the national ETS without totally losing their value, however they also recognise the risk of full banking contributing to over-supply in the market. More than half of industry respondents were from companies that had participated in the pilot markets, and are therefore likely to be more in favour of banking into the national ETS.

Respondents from covered industries were asked whether they think that their organisation is adequately prepared to take part in an ETS. The areas in which respondents were least prepared included administrating allowances (44%) and carbon trading (41%).

Respondents expect carbon emissions trading to increasingly affect investment decisions in coming years. In 2017, 39% expect investment decisions to be strongly or moderately affected, and by 2025 this figure rises to 84%.

Carbon emissions trading is expected to increasingly affect investment decisions

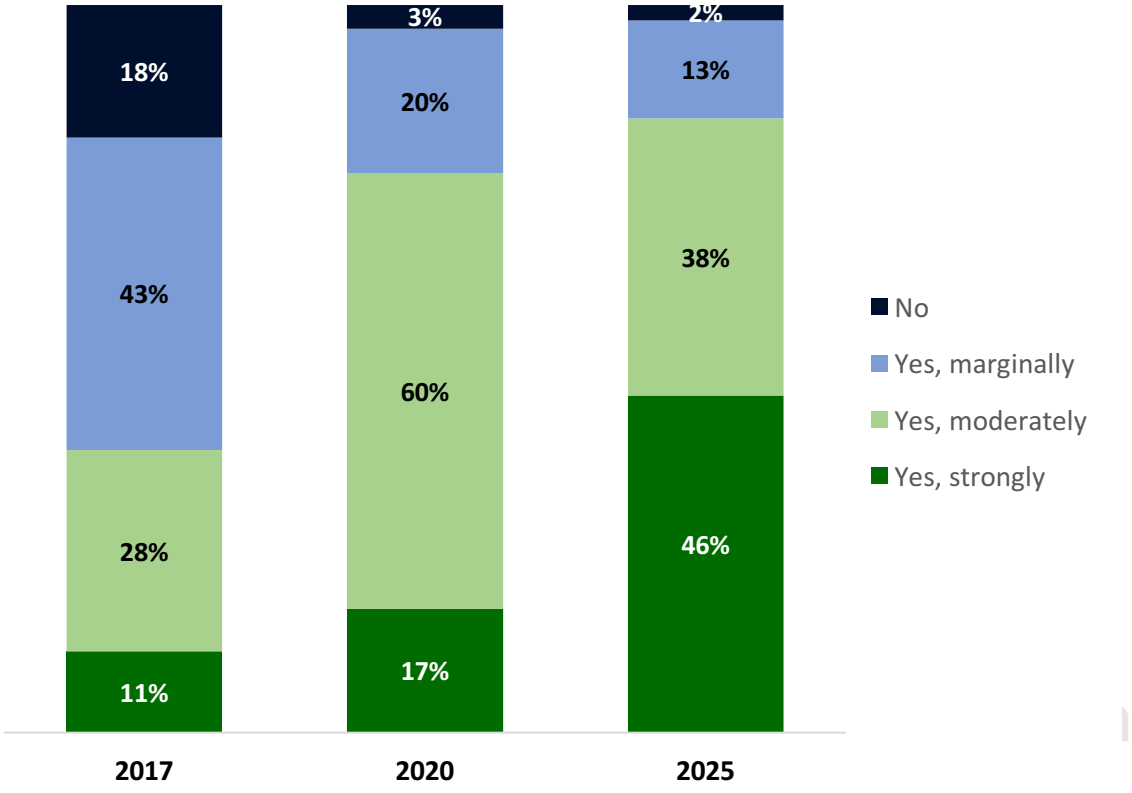

Figure 1 Q3-1: Do you expect the ETS in China to affect investment decisions in 2017? 2020? 2025? (N=252, 246, 231)

When asked if they expect China's national ETS to be linked with other existing trading systems around the world, 61% believe that linking will take place by 2030. Of those expecting international linkages, the vast majority expect a link with the EU ETS, and some expect a link with the Regional Greenhouse Gas Initiative (RGGI), South Korea and/or California.

Price expectations

The average price expectation in the national ETS is CNY 38/ton in 2017; CNY 51/t in 2018; CNY 74/t in 2020; CNY 108/t in 2025. However, the price levels remain highly uncertain, especially in the more distant future. The 20th and 80th percentiles for 2025 are CNY 50/t and CNY 200/t respectively. The future price expectations are much higher than at the time of the 2015 survey. At that time, average expectation was CNY 56/t in 2020, and CNY 70/t in 2025.

China's carbon price is expected to steadily rise

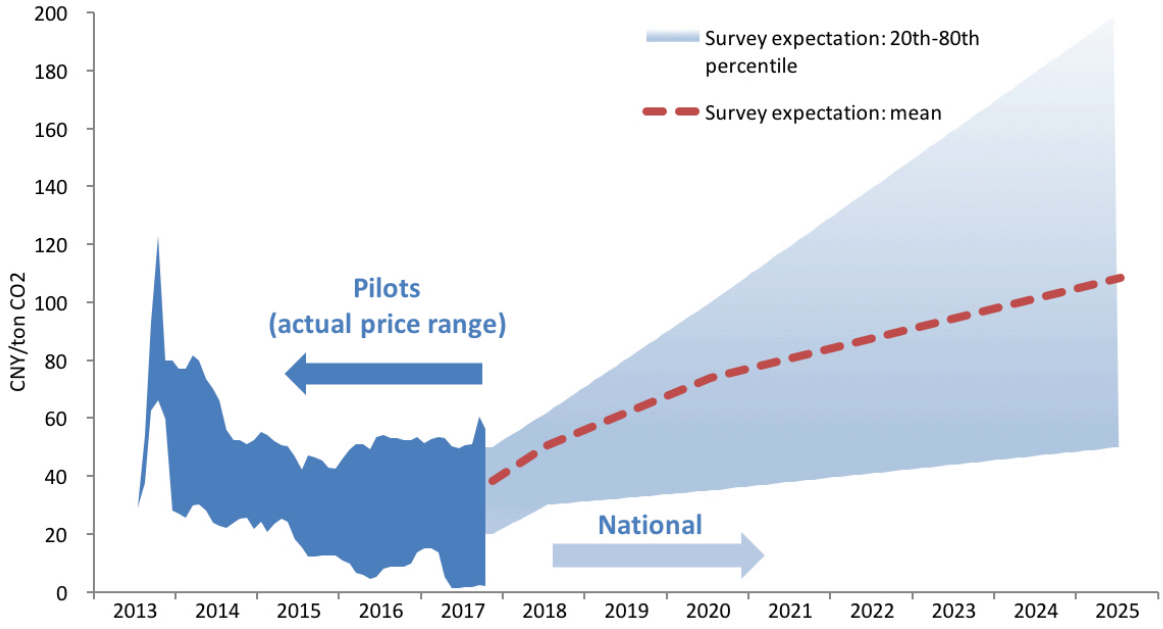

Figure 2 Range of prices in the pilot systems to-date, and estimated prices for the national system by survey respondents.

There was slight variation between industry and non-industry respondents, with industry expecting higher prices after 2018. Other similar surveys conducted in Europe and Australia tended towards lower carbon price expectations from industry. However, our 2015 China survey also showed an industry tendency to expect higher prices.

Carbon pricing in the mix of policy instruments

Respondents were asked what they expect to be the most important policies to reduce GHG emissions in future years (Figure 3). The expectation is that, over time, the emphasis will shift towards ETS, environmental tax, information disclosure, and energy allowances trading.

Market-based measures are expected to become the main policy instruments

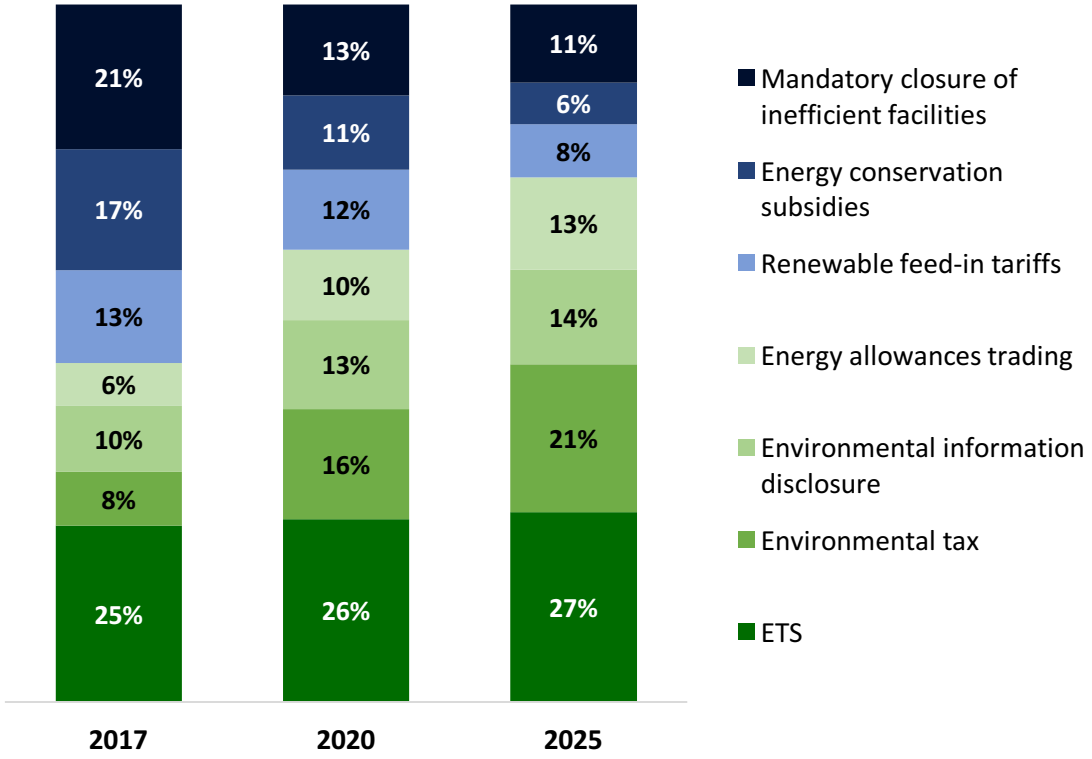

Figure 3 Q3-3: Which do you expect to be the most important policies in motivating companies to reduce GHG emissions in China at different points in time? (N=256, 253, 257)

China's emissions targets and peak emissions

While 63% of respondents expect that China will stick to an emissions intensity target for 2025, a majority expects that an absolute emissions target will be set for 2030. These results continue to support the possibility that, in the near future, China may shift its 2030 commitment from an emissions intensity target to an absolute emissions target.

90% of respondents expect China to achieve the carbon emissions peak by 2030, and 55% expect China's emissions to peak by 2025 or earlier.

China's emissions are expected to peak ahead of 2030

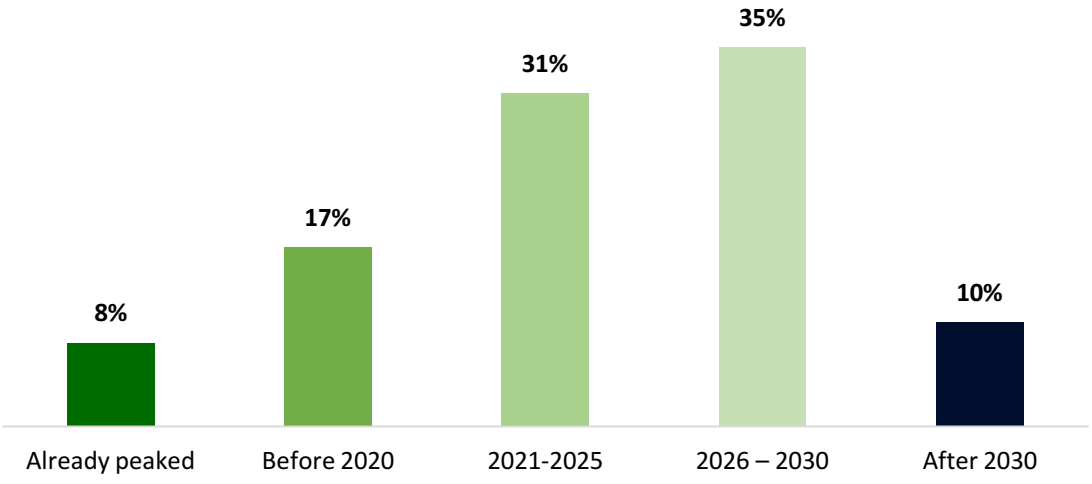

Figure 4 Q6-1: When do you expect China's emissions will peak? (N=259)