

CHINA: THE EMISSIONS TRADING TIDAL WAVE

To many, China's plans to start a national emissions trading system in 2017 seems fast, given the scale of the country's emissions. In reality, this new wave is the culmination of 10 years of activity, says Jeff Swartz

Carbon markets have been making waves in Europe, the US and elsewhere – and China is no exception. It will very likely become the carbon market 'tidal wave', considering the level of emissions that will be covered when its national emissions trading system (ETS) begins in 2017. China's experiences with emissions trading seem sudden and fast moving to carbon market professionals and the public at large. But, just as the EU ETS celebrates 10 years in 2015, China also celebrates 10 years of emissions trading.

CHINA'S FIRST WAVE

Seasoned UN negotiators and observers will remember one of China's negotiators during the Kyoto Protocol talks, Professor Zhong Shukong, as 'Dr. No.' China's negotiating position towards emissions trading in the Kyoto era was one of caution and insistence that developed countries take the lead through investments in the Clean Development Mechanism (CDM); Zhong could see the benefits China would accrue.

Fast forward to 2005 and China took its first step on emissions trading when the Chinese government set up its 'Designated National Authority' to approve CDM projects under the authority of the National Development and Reform Commission (NDRC). At the same time, it established a department in the NDRC to exclusively focus on climate change.

This department began the process of reaching out to major Chinese companies and research institutes on the benefits and importance of the CDM. The NDRC's Climate Change team actively encouraged and directly requested China's leading think-tanks and energy companies to develop lists of projects that could be

CHINA'S CARBON MARKET IN NUMBERS

- 945,996,837: Amount of CERs issued to projects in China
- 3,763: number of CDM projects registered in China
- 47 million¹: amount of carbon allowances traded in the seven ETS pilots, as of October 2015
- 25 million²: amount of CCERs issued as of October 2015
- 7: the number of pilot ETS programmes in operation
- 28%: Total amount of China's 2010 GDP currently covered an emissions cap
- 60-65%: China's carbon intensity reduction target, by 2030

eligible for the CDM. Through this process, an entire industry of investors, engineers, entrepreneurs, consultants and project developers in China was born.

Over the past 10 years, these individuals have created a pipeline of more than 3,700 projects that collectively will reduce in excess of 600 million tonnes of GHG emissions by 2020. Clearly, Zhong was ahead of his time during the Kyoto negotiations for his support of the CDM; he not only helped establish thousands of jobs and an entire industry to emerge, but his foresight also helped China reduce more than 94 million tonnes of emissions 2005 to 2015.

China's energy mix also changed for the better as a result of the CDM. Before 2005, China's renewable energy industry was in its infancy and the total share of renewables in China's overall energy mix only surpassed 15% by 2009.³ Its early years of the CDM helped contribute to the establishment of the Chinese Renewable Energy Industry Association (CREIA) and the set-up of renewables divisions at

China's 'five largest power companies.

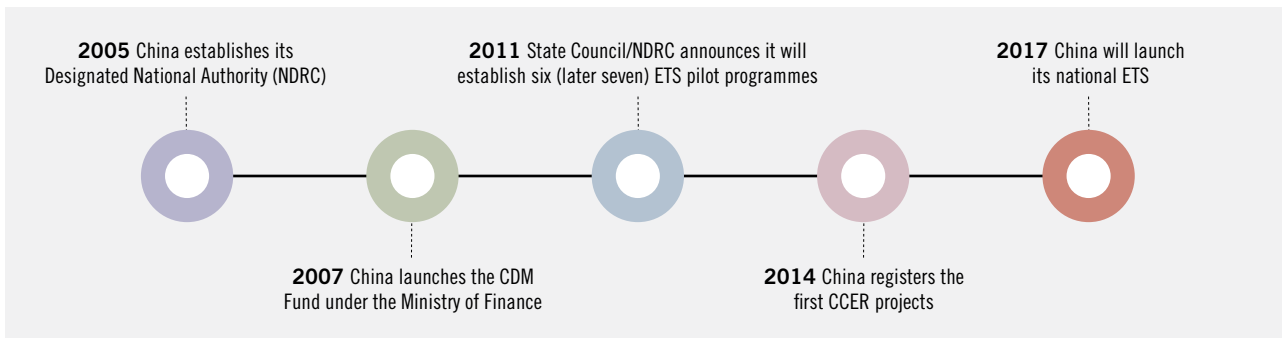
The CDM also helped the government advance its understanding of the potential for renewable energy projects. China became a ripe opportunity for private sector investors interested in the CDM. As China's CDM pipeline grew, China took more ownership and even chaired the CDM Executive Board from 2012-13.

THE SECOND WAVE

In October 2011, the NDRC designated five cities⁴ and two provinces to 'pilot' emissions trading from 2012 to 2015. The regions of Beijing, Guangdong, Shanghai, Tianjin, Shenzhen, Chongqing and Hubei accounted for about 18% of China's total population and 27% of its national GDP in 2010, and represent diverse regions of economic and geographic characteristics. Each pilot developed and implemented its own rules and standards for an ETS, in consultation with the NDRC's Climate Change Department

There are many differences between the ETS pilots due to the diversity of China's industrial development. For example,





Beijing has set an emissions threshold of 10,000 tonnes CO₂ per year for obligatory participation, while Shanghai distinguishes the industrial sector and non-industrial sector enterprises with varying emissions thresholds. Allowance management and distribution has consistently been one of the most difficult elements of the pilot systems over the course of their implementation.

The local governments also entered into agreements with foreign environmental agencies to help understand how to properly implement an ETS. Agreements were signed between local governments in China and California, the UK, Norway, Germany, France, Québec and the European Commission. Moreover, China received \$8 million from the World Bank's Partnership for Market Readiness in 2013 to study the feasibility of and make recommendations for establishing a national ETS under the 13th-Five-Year-Plan (2016-21).

In many respects, the ETS pilots in China have been a tremendous success. They have started the process of requiring companies in China to follow an annual rigorous monitoring, reporting, and verification (MRV) process. They have emboldened local governments and the NDRC in Beijing to have the confidence in emissions trading as a policy tool to reduce emissions. As a result of the experimentation with emissions trading at the municipal and city level, the NDRC will now embark on launching a national ETS from 2017.

THE TIDAL WAVE

In December 2014, the NDRC released the first rules on its website for a national carbon market. The rules are quite basic and give broad guidance on how the national carbon market will be governed. Since the initial release of the rules, the NDRC has had inter-ministerial negotiations and consultations with China's State Council (China's penultimate decision-making body) on the designs and plans for the national ETS.

As the rules indicate, China's national market looks poised to be a system whereby the provinces and regions issue allowances and adjust their respective emissions caps over time. The central government will be responsible for establishing and issuing regulations, as well as enforcing compliance. China's INDC for the Paris 2015 agreement includes a target for a 60-65% carbon intensity reduction by 2030. The national carbon market will be one policy tool for China to meet this target.

While the NDRC has updated its draft legislation since its first release in 2014, it has also told IETA that it aims for China's ETS to avoid three key mistakes it thinks were made in the EU ETS:

1. No overallocation of allowances.
2. Not introducing a tax and ETS at the same time, with the NDRC keen to introduce both simultaneously.
3. Not including indirect and direct emissions in the ETS; the NDRC wants to include both sources.

China's national ETS will include six sectors: power; petrochemicals and chemicals; iron and steel; cement; pulp and paper; and aviation. Any other sector will likely be subject to a carbon tax; however, this is still to be defined by the State Council. Other details, such as how allowance allocation will work and what amount of offsets operators in the national ETS can use are also still undefined. China will, however, allow for some form of foreign participation in its ETS, following positive experiences from the pilots where foreign companies can currently trade (Shenzhen, Shanghai, Guangdong, and Hubei).

China's carbon market will be the largest when it enters into force, and it will create an eastward pivot of activity on carbon pricing over time. While the details of its market still remain unclear, China's 10 years of policy evolution and experimentation with emissions trading have shown its government – and the world – that carbon markets are a positive and effective way to reduce emissions while maintaining economic growth.

Based in Brussels, Jeff Swartz manages and directs international climate policy for IETA. He also leads IETA's Business Partnership for Market Readiness (B-PMR), which is helping to shape the next generation of carbon markets. Prior to joining IETA in 2011, Jeff spent four years in Beijing working on the CDM for the Nordic Environment Finance Corporation (NEFCO) and also at Evolution Markets.

(1) Figure provided by Lim Jian Wei, ICIS China Carbon Analyst (2) Ibid (3) IEA, 'Integration of Renewables: Status and Challenges in China,' 2011. (4) In fact, the NDRC's original ruling was for four cities and two provinces. Shenzhen made a special case to the NDRC and was granted approval shortly after the original announcement.

