

CHINA'S GREEN EFFORT: FROM REGION TO NATION

EMISSIONS TRADING IS SET TO GO NATIONAL IN CHINA THIS YEAR. A TEAM AT ZHIXIN TAKES STOCK OF PREPARATIONS FOR THE WORLD'S LARGEST CARBON MARKET

By the end of June 2017, more than 2,000 enterprises in seven regional carbon pilot markets across China should have surrendered their allowances for the fourth "compliance year" and, by the end of the year, some of them will be enrolled for China's national ETS.

In September 2015, President Xi Jinping announced that China would commence its national ETS in 2017, placing the design and implementation of a nationwide carbon market on the fast track. Over the past two years, a series of tasks have been accomplished or are at the final stage, including the establishment of regulations, foundation of carbon inventories, and the development of allowance allocation schemes. According to publicly available information released by National Development and Reform Commission (NDRC), it is likely that China's national ETS will launch in November of this year.

As the cornerstone of a carbon market, Measuring, Reporting and Verification (MRV) programmes at provincial level have been built up. From 2013 to 2015, NDRC gradually approved measuring and reporting guidelines of GHG emissions for 24 scopes, to ensure the consistency and accuracy of emission data. Subsequently, provincial Development and Reform Commissions (DRCs) developed province-specific data reporting procedures as well as accreditation criteria for independent verifiers. NDRC's regulation states that Chinese firms which consumed over 5,000 tonnes of coal equivalent per year shall report GHG emissions annually. Official data indicates that in the period of 12th

five-year plan (2011-15), the number of enterprises with energy consumption equivalent to double that amount is approximately 16,000. There's no doubt that the first nationwide emission reporting and verification will be no picnic.

According to NDRC's working plan, the national ETS covers eight sectors: petrochemicals, chemicals, building production and materials, iron and steel, nonferrous metals, paper and pulp, power, and aviation. Altogether, nearly 8,000 enterprises in 18 sub-sectors are involved. Due to the tremendous workload, the range has been scaled down to four industrial sectors (power generation, electrolytic aluminium, cement and aviation) at the start. The rest will be incorporated when the necessary preparation is completed. Even with just those first four sectors, the total amount of allowances, each one equal to one tonne of CO₂, will reach 4-5 billion, which is 1.5 times greater than EU ETS in terms of cap. The world's largest emitter is becoming host to the biggest carbon market in the world.

The allocation methodologies for power generation, electrolytic aluminium and cement industries have been published, and are based on benchmarking, in contrast to the grandfathering approach initially used in the EU ETS. Furthermore,

NDRC's approved calculation and reporting guidelines show that both the power generation side and the power consumption side are considered as emission sources. In addition, China is in the process of supply-side reform, which requires companies and industries to improve energy efficiency and eliminate outdated industrial capacity. The Chinese ETS is likely to be established with the strictest ever emission-control policies in the country.

Based on the Clean Development Mechanism (CDM), China has introduced a domestic offset mechanism, which allows emissions reducing projects to apply for emission reduction credits from NDRC, so-called Chinese Certified Emission Reductions (CCERs). Emitters can purchase credits and balance emission at certain percentage according to relevant regulations. The issuance of CCERs requires third-party validation and verification plus expert review pursuant to a methodology.

To date, the NDRC has approved 200 CCER methodologies, 173 of which are converted from the CDM; the remaining 27 methodologies were developed by domestic project owners and consultancy companies. As one of the methodology developers, Shanghai Zhixin Carbon Asset Management Co. Ltd (Zhixin Carbon) has registered four CCER methodologies and three CDM methodologies. Its first registered methodology encouraged the installation of electric vehicles charging

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stations with carbon-benefits. Such offset mechanisms not only bring more participants into carbon market to enhance trading activity, but also attract more investment in renewable energy and energy-conservation industry via the carbon market. Moreover, it helps to engage all of society in GHG mitigation.

Along with the elaborated government policies, a carbon market catches various parties' attention. Other than emitters, more investors and professional service providers emerge in the market. A big portion of the service providers focus on the management business of carbon asset. These companies are either from large state-owned enterprises, for instance Zhixin Carbon is a branch of State Grid Corporation of China, or from private/overseas companies which gained experience in the Kyoto Protocol era. In a few years, individual investors are expected to have access to the carbon market as well. The market will become more efficient and prosperous with all sorts of participants' efforts, which is crucial to cultivating a stable market-based system to help the nation achieve its reduction targets. Doubtlessly, a national carbon exchange platform is needed as well to support trading activities. The design of a new trading system has been kicked off, which will replace existing ones in each trial region to secure smooth and safe operation across the country.

THE DEVELOPMENT OF THE CHINESE ETS DEMONSTRATES THAT CHINA WILL TAKE ITS RESPONSIBILITY FOR GLOBAL CLIMATE CHANGE SERIOUSLY

The Chinese carbon market is also considered part of the national green finance strategy. In September 2016, with seven other ministries, the People's Bank released a groundbreaking report, Establishment of China's Green Financial System, right after the G20 Summit, which gives the green light to the development of financial instruments.

At present, several carbon-related financial products have been introduced to the market, such as carbon emission allowance buybacks, CCER pledge loans and carbon allowance futures and forward, which increase the market liquidity. Among these, Zhixin Carbon signed the first CCER pledge contract with Shanghai Pudong Development Bank in 2015 and the first carbon assets buyback contract with Spring Airlines, a pioneer in aviation industry, together with Industrial Bank in 2016. When the design and business model of carbon derivatives combined with trading options matures, carbon-related finance will certainly further boost the growth of the market.

With lessons and experiences gained from regional trials in the last four years, China's carbon market is growing and exploring right way towards national size. The development of the Chinese ETS demonstrates that China will take its responsibility for global climate change seriously. It is also a great opportunity for the nation itself to realise a low-carbon transformation and to build up a climate-resilient economy. Although US President Donald Trump's pullback from the Paris Agreement casts a shadow over the world, we have confidence that China will fulfil its pledge to cut emissions and contribute to the goals of the 2015 agreement.

Shanghai Zhixin Carbon Asset Management Co. Ltd. is a subsidiary of State Grid Corporation of China and a leading carbon asset management company, which opened the first Chinese carbon trading broker house (Zhixin Carbon Broker House) in Shanghai. Winner of "Award for Today's Transformative Step" in 2014 and 2015 at the UN Climate Conference for its innovative contributions.



IETA China Working Group meeting, July 2017.