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Carbon trading: A new dawn in China

China has kicked off pilot carbon emission trading projects in seven provinces. Businesses on the list of key emitters should engage with the NDRC as soon as possible

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China is now the second largest energy consumer in the world. The country is facing tough challenges from its energy reform and carbon emission reduction problems. China's 12th Five-Year Plan (2010-2015) states that the country will gradually establish a national carbon trading market and control the emission of greenhouse gases. To achieve this goal, in 2011, the National Development and Reform Commission (NDRC), the key regulator on climate change issues in China, allowed seven municipalities and provinces – Beijing Shanghai, Tianjin, Chongqing, Shenzhen, Guangdong Province and Hubei Province – to run independent carbon trading systems. According to the NDRC, 14.36 million tons of CO2 had successfully been traded at a total transaction price of over Rmb500 million by the end of November in 2014. The seven new pilot schemes have brought China's plans of establishing a national carbon trading market into international focus culminating on December 10 2014 when the NDRC promulgated the *Tentative Measures for the Administration of Trading of Carbon Emission Rights* (碳排放权交易管理暂行办法) (Measures) establishing a national carbon trading market. This is the very first time the NDRC has provided any details on how the national carbon market will work in China.

Regulating carbon emissions

Transaction rules

Consistent with the current seven pilot schemes, the Measures provide that the national carbon trading system will basically involve two products, namely Emission Reduction Quotas (ERQs) and China Certified Emission Reductions (CCERs) of greenhouse gases.

According to the Measures, seven types of greenhouse gases are to be covered: CO2, CH4, N2O, HFCs, PFCs, SF6 and NF3. The scope of greenhouse gases will be adjusted by the NDRC from time to time. Presently all pilot schemes cover CO2 ERQs rather than other greenhouse gases.

An ERQ is the carbon emission quota allocated by the government to those key emission entities. It is a transaction unit for carbon trading. One ERQ is equal to one tCO2e. A key emission entity is an independent entity discharging greenhouse gases and meeting the criteria for mandatory participation in carbon trading set by the NDRC. Nevertheless, the NDRC has not set a unified national criterion for key emission entities. The seven pilot schemes are using their own local criteria to decide what type of entities must participate. For instance, the Beijing municipal government defines those entities with annual CO2 emissions (including direct and indirect) over 10,000 tons as the key emission entities, while Shanghai rules that any enterprise meeting one of following criteria is a key emission entity: (i) steel, petrochemical, chemical, nonferrous metal, electricity, construction material, textile, paper, rubber or chemical fibre activities with annual CO2 emissions (including direct and indirect) over 20,000 tons from 2010 to 2011; and (ii) aviation, harbour, airport, railway, commerce, hotel or finance activities with annual CO2 emissions (including direct and indirect) over 10,000 tons from 2010 to 2011.

The ERQs will be first allocated by the NDRC to provincial governments based on historical greenhouse gas emission data, economic growth and the industry and energy structure of these local governments. Each provincial government will then allocate its ERQs to those key emission entities in its jurisdiction. According to Article 7 of the Measures, the NDRC's provincial counterpart (provincial NDRC) needs to submit a list of key emission entities in its jurisdiction to the NDRC for the latter's review. The vast majority of ERQs allocated by the NDRC and the provincial NDRC are free at the initial stage, but will be subject to charge in due course as the national carbon trading system develops (a very small portion of ERQs will be reserved by the NDRC for the adjustment of the carbon trading market or key construction projects).

The CCER is a voluntary emission reduction generated in accordance with the *Tentative Measures for the Administration of Trading of Voluntary Greenhouse Gas Reductions* (温室气体自愿减排交易管理暂行办法) promulgated by the NDRC in 2012, which is quite similar to the Clean Development Mechanism under the *Kyoto Protocol*. Despite the fact that the Measures support both ERQs and CCERs, all seven pilot schemes only deal with ERQs transactions.

As far as participants are concerned, consistent with the seven pilot schemes, the Measures allow both qualified entities and individuals to participate in carbon trading. In practice, however, the pilot schemes set different financial thresholds for individuals to participate in carbon trading. Nevertheless, Shanghai is the only municipality in the seven schemes that has not opened carbon trading to individuals though its scheme *per se* allows individuals to do so.

Meeting emission targets

Part Four of the Measures outlines the basic rule for monitoring, verifying and fulfilling emission targets for each key emission entity. Each entity is required to prepare an emission monitoring plan according to relevant national standards or requirements made by the NDRC. On October 15 2013, the NDRC issued the first greenhouse gas verification methods and reporting guidelines for ten industries, including electricity generation, electricity transmission, steel, chemical, electrolytic aluminium, magnesium smelting, flat glass, cement, ceramics and aviation. This monitoring plan needs to be filed with the provincial NDRC. In addition, each key emission entity needs to further prepare a greenhouse gas emission report reflecting its emissions in the previous year. This Emission Report needs to be further validated by a qualified third party verifier recognised by the NDRC in the form of a verification report prepared by the third party.

The seven pilot schemes have established their own third party verification systems, but these verification systems are only recognised within their regions respectively. A nationwide third party verification system is still under construction. Both the emission and verification reports must be submitted to the relevant provincial NDRC within a required period of time. The provincial NDRC will decide the emission target for each key emission entity in the previous year. Though some of the seven pilot schemes have promulgated their own verification measures, it is unclear whether the provincial NDRC will set the target based on the emission report and/or verification report or its own calculation. A key emission entity shall then use the ERQs, either allocated by the provincial NDRC or acquired through carbon trading, of no less than the emission target to fulfil its emission obligation in the previous year. Notably, Article 32 of the Measures allows key emission entities to use their own CCERs to offset a certain percentage of the target. According to most pilot scheme rules, this percentage should be around 10%. However, the Measures do not yet quantify this offset percentage for the national carbon trading market. ERQs and CCERs are two completely different products to be traded under the national carbon trading systems. ERQs will be based on a free quota allocation, while CCERs will operate under a rule quite similar to the Clean Development Mechanism. This offset percentage may also impact the trading of ERQs in the seven pilot schemes.

Violations and sanctions

According to Article 40 and 41 of the Measures, a key emission entity must submit both an emission report and a verification report on time, as well as meet the emission target. The Measures provide that the violation of any obligations is subject to administrative sanctions but do not specify what type of sanctions. According to the Beijing pilot scheme, a key emission entity failing to submit any of these reports shall be fined up to Rmb50,000 (US$8,000 or GBP5,000). If an entity exceeds the emission target, it is subject to a fine in respect of the excess varying from three to five times of the then carbon market price. Among the seven pilots, so far only Beijing has enforced its administrative rules. Several key emission entities (including certain multinationals) in Beijing have already been fined.

What to watch out for

Given the preliminary nature of the national carbon trading market in China, businesses should consider:
Is your company on the list of key emission entities in the seven pilot schemes? If yes, it is critical to prepare and submit an emission report and a verification report on time; and comply with the emission targets set by the corresponding provincial NDRC.
Do you have a good level of communication with the relevant provincial NDRC?

Businesses are encouraged to engage as soon as possible in order to negotiate a reasonable emission target.
Have you purchased the ERQs in time? When considering timing, businesses should avoid purchasing ERQs from the carbon trading market close to the deadline for fulfilling their annual emission obligations, because based on experience from the seven pilot schemes, there will be a considerable number of key emission entities acquiring ERQs to meet their emission targets, which may cause the carbon market price to soar during that period.

For businesses that are in an energy-intensive sector, such as electricity generation, electricity transmission, steel and chemical industry, but have not yet been added to the key emission entities list, thought needs to be given to the transition from the seven pilot schemes to the national carbon trading system and the potential risks which are likely to arise from carbon emission restrictions in China.

More details to follow soon

Although the Measures provide only an outline for establishing the national carbon emission trading market in China, they signify strong intent. In due course, there will be a considerable number of issues to be clarified by more implementing rules, such as the national criteria for key emission entities, detailed rules on allocating ERQs and the administration of third party verification institutions. This is the last year of the 12th Five-year Plan (2010-2015) and the year in which China will aim to establish a nationwide carbon trading market. These key emission issues will almost certainly be addressed in the coming months.

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