

Carbon Trading

TRADEOFF

Regarded as one of China's major initiatives to combat climate change, the implementation of a national carbon trading scheme in 2017 is still facing a lot of uncertainty

By Wang Yan



Dedicated to cutting carbon emissions, Xinfu Group, a power generating company in Shandong Province, blew up the company's eight coal-fired power generating facilities on Aug 11, 2015

PHOTO BY CNS

With the United Nations Climate Change Conference starting November 30, 2015 in Paris, a joint statement on climate change issued by Chinese President Xi Jinping and US Presi-

dent Barack Obama on September 25 was hailed as a silver lining after years of stagnation of UN climate talks since the eventful Copenhagen round in late 2009.

“The recent joint announcement strength-

ens the common ground shared by both sides on climate change and may make them a model for other developed and developing nations to follow, while boosting everyone's confidence that this year's upcoming cli-

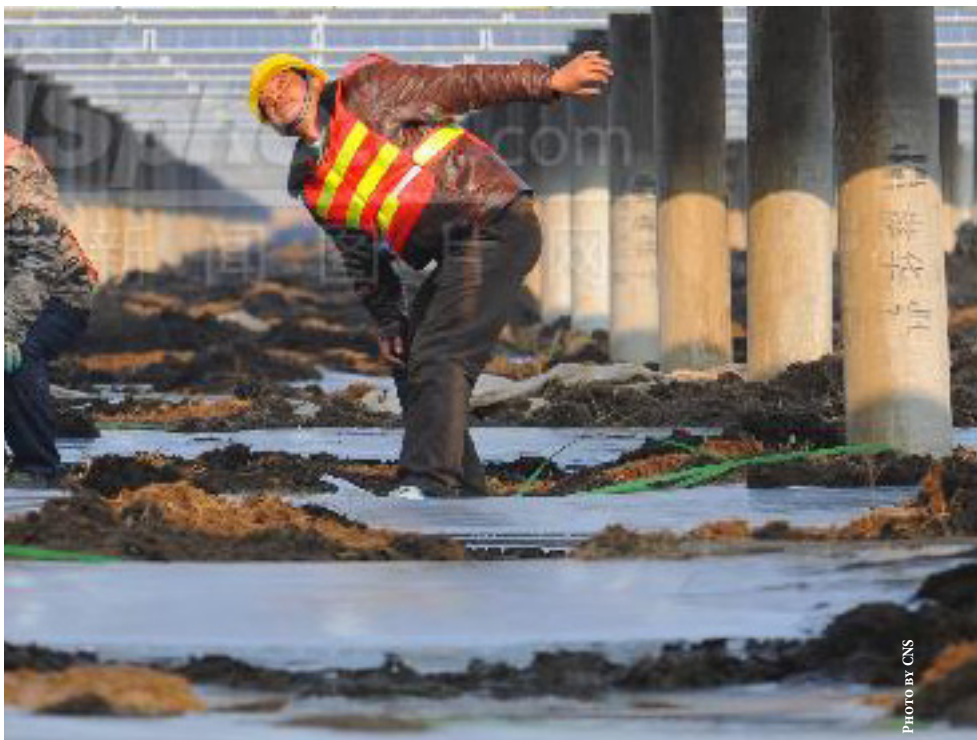
mate change meeting in Paris will end with positive results,” said Teng Fei from Tsinghua University’s Institute of Energy, Environment and Economy during a recent interview with *caixin.com*.

Apart from announcing 20 billion yuan (US\$3.1bn) to support other developing countries in combating climate change, an amount just over the US’s previous pledge of US\$3 billion to the Green Climate Fund, Xi also made another significant announcement in the joint statement: China plans to establish a national “cap-and-trade” program, which will be the world’s largest emissions trading system (ETS), by 2017. As the world’s largest greenhouse gas emitter and its second-largest economy, China is increasing domestic efforts against climate change and gearing up to play a leadership role in helping the developing world mitigate and adapt to climate change.

Joshua P. Meltzer of the Brookings Institution wrote a commentary in late September describing China’s ambitious ETS as the “most noticeable element” of the joint statement. He also added: “The decision by China to introduce a national cap-and-trade system stands in increasingly stark contrast to the absence in the US at the federal level of a national program (or even a serious political debate) on carbon pricing.”

Pilot Performance

China has committed to making sure its greenhouse gas emissions peak by the year 2030, but the absolute ceiling at which the emissions will peak has yet to be announced. According to estimates by the Paulson Institute, an independent think tank located at the University of Chicago, the cap for China’s carbon emissions may range from three to four billion tons, with a carbon market size of up to 64 billion yuan (US\$10.1bn) per year. China’s National Development and Reform Committee (NDRC) has predicted the national carbon market to cap at two to three billion tons, which still allows China to



Workers make final checks on solar power generating plant in Lianyungang, Jiangsu Province, Dec 26, 2014

eclipse the EU as the world’s largest carbon market. China’s ETS, once established, will set a cap on CO₂ output and force firms to buy or sell allowances to meet their individual emission requirement, thus providing a monetary incentive for them to reduce their emissions.

China’s endeavors in carbon trading can be traced back to October 2011, when it declared it would set up seven pilot regional carbon markets. They are located in Shenzhen, Beijing, Shanghai, Tianjin and Chongqing, as well as the provinces of Hubei and Guangdong. Since mid-2013, the seven pilot schemes have been rolled out successively and some 2,052 enterprises have been required to participate in the system so far. By July 31, a total of 51.7 million tons of carbon allowances, at a combined value of about US\$308

million, were traded under these plans, according to the Paulson Institute.

Yet, as these pilot programs have been operating individually, each region’s market has performed differently.

According to the 2015 China Carbon Pricing Survey that was conducted jointly by China Carbon Forum and ICF International, prices in the seven pilot schemes have fluctuated significantly. “Prices in many schemes temporarily rose following their establishment in 2013 and 2014 (prices in Shenzhen even exceeded 100 yuan per ton for a short time in October 2013), but then declined and stabilized throughout late 2014 and early 2015,” reads the report. “In May and June 2015 prices in most schemes dropped sharply, largely due to oversupply of allowances.” When the survey was taken in mid-

2015, prices ranged from 9 yuan (US\$1.42) per ton in Shanghai to 42 yuan (US\$6.61) per ton in Beijing.

“For a healthy, intact carbon market, once the price runs too low, it may indicate there’s a surplus of allowances and that the overall emission cut target is lethargic,” explained Jiang Enjun, senior researcher at Energy Research Institute, in an interview with *NewsChina*. “However, in China, so far the market is in its trial period, and prices, largely manipulated by some market forces rather than being adjusted by emission allowance demand, cannot fully indicate the present condition of the carbon market.”

As pilot projects, these seven different places can hardly be judged to be performing well or poorly either through indicators of its price or the amount traded. For example, Hubei Province appears to have traded the largest amount of allowances, but that is only because it allows for intermediary companies to trade allowances between themselves, a practice the other six pilot areas do not allow. On the contrary, companies in Chongqing, due to the city’s reluctance to participate in the scheme as it may impede its economic development, traded very little, with some days passing without any trade at all.

Although analysts expected a surplus of emission allowances as it is an inevitable result of the recent downturn of the domestic economy (lower production equates to lower emissions), China’s carbon market prices cannot be considered the same gauge as those of the more established ETS in the EU. The Climate Group Greater China Director Wu Changhua told our reporter that it is only when China gains sound legal basis for its carbon market, sets detailed policies for the implementation of emission targets in different stages and forms mature mechanisms to allocate allowances, that the price may become a meaningful indicator for a healthy carbon market.

“So far, the complicated system in China [needed] to develop a national ETS is far

from complete,” Wu added.

Company Reaction

When the pilot schemes launched, most enterprises required to participate had absolutely no conception of what carbon trading was. Dimitri de Boer of China Carbon Forum told *NewsChina* that, despite local governments’ mandates that high-emission enterprises take part in the carbon market, there were some who simply refused to buy allowances and said they would not pay a fine when the pilot programs began in 2013 and 2014.

In Hubei Province, 138 enterprises that had an annual energy consumption exceeding 60,000 tons of standard coal equivalent were included in the pilot scheme. Fang Li (a pseudonym), the director of the science and technology department within a large petrochemical company in Hubei who spoke on condition of anonymity, started to take government-organized training programs on the carbon market in March 2013. She told the reporter that it was not difficult for her company to fulfill its compliance in 2014 with the free allowances the government issued to the company that year (most allowances in China are free, rather than sold at auction). “Through the application of a new waste gas recycling technique last year, not only is our company producing an extra 10,000 tons of natural gas annually, we’re also making an extra 1 million yuan (US\$157,000) by selling our saved allowances on the market,” she said.

Fang also told our reporter that most eligible companies in Hubei are rather active in the process, yet there are some she knew of that were slow to respond and only traded to comply with the local government, putting off trading until shortly before the deadline.

“An unwillingness to participate in the carbon market is a universal attitude amongst enterprises, particularly when most industries are facing overcapacity,” Wu Changhua said. “Thus, it’s very important for the gov-

ernment to have the proper policies in place to stimulate enterprises’ enthusiasm.”

Improvements Needed

Industry analysts and researchers agree there are major problems with the current carbon market: a lack of openness, transparency and fairness; a flawed system of allowance allocation which does not reflect real industry conditions; and an inadequate monitoring, verification and reporting system.

Fang Li told the reporter that when the national ETS is formed, her company’s biggest concern would be the system’s fairness, i.e. the allocation of allowances.

So far the most successful ETS in the world remains the EU’s. “Since our government still offers free emission-allowances to enterprises and there is no timetable so far for the cancellation of the free allowance system... the ETS in China cannot be compared to the EU ETS; strictly speaking, it is not a real ETS,” said Jiang Enjun of the Energy Research Institute.

The national ETS to start in 2017 would cover such key industry sectors as iron and steel, power generation, chemical, building materials, papermaking, and nonferrous metals. These sectors were selected for two main reasons, according to Wu Changhua. “First of all, these key industry sectors account for about 60 percent of [China’s] total emissions. Secondly, data collected during the past decade for these sectors is comparatively complete, [making it easier] to establish a reliable ETS.”

The once-trumpeted EU ETS has exhibited imperfections, with slumping prices eroding the system’s power to motivate potential polluters. “To conclude whether China’s ETS is going to be effective or not, we need to see whether there is real trading within its system, whether the trading can stimulate technological innovation, and push companies to take measures to cut emissions,” Wu Changhua told *NewsChina*. “We need to wait and