ENERGY

Firm develops clean coal tech

Shenwu unveils new processing technique to significantly lower emissions

By YANG ZIMAN
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Energy solution equipment developed by Beijing-based Shenwu Environmental Technology Co Ltd on show at an international exhibition in Beijing. CHEN MING / FOR CHINA DAILY

Shenwu Environmental Technology Co Ltd, a Shenzhen Stock Exchange-listed company based in Beijing, has released a new technique in coal processing that the company said will significantly lower the costs and emissions compared with conventional coal gasification.

The new technology separates the volatile matter from the fixed carbon content in coal. The volatile matter will be further decomposed into natural gases, petrol and synthesis gas.

The fixed carbon content will be transformed into calcium carbide and carbonic oxide. The calcium carbide will then react with water to produce acetylene.

China is in bad need of clean-coal technologies to ease its environmental pressure and production overcapacity, according to Wu Daohong, board chairman of Shenwu, the energy solutions company.

"Coal will continue to dominate the country's energy market in the long run," Wu said.

"In 2014, energy consumption per capita in China was 3.1 metric tons of standard coal, lower than half of the level in developed economies. Higher living standards come with higher per capita energy use. A moderately well-off society, which is China's goal by 2020, is normally marked by more than 4 tons of standard coal of per capita energy consumption," said Wu.

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> **Liu Jun,** energy analyst at Changjiang Securities Co Ltd

In the past 10 years, China has invested 1.56 trillion yuan ($240 billion) in developing clean coal. In the next five years, it is expected to invest another 3 trillion yuan in environmentally friendly coal.

According to statistics provided by Shenwu, the new technology is able to produce three products within one step — synthesis gas, petrol and natural gases — accounting for 24 percent, 38 percent and 38 percent, respectively, of the total final product. The conventional coal gasification, however, only produces synthesis gas. It needs further chemical reaction to produce petrol and natural gases.

With every 1 million tons of olefin, coal gasification requires investment of 28 billion yuan while the new technology only needs 20 billion yuan. The new technology's water consumption is also 50 percent lower than coal gasification. Its carbon dioxide emissions are 37 percent lower.

"China's coal industry has been plagued by large investment, low outcome and high water consumption," said Liu Jun, an energy analyst at Changjiang Securities Co Ltd.

"The current overcapacity in China's coal industry is not overcapacity in its real sense but overflowing low efficiency and high-polluting production capacity. The challenge is not to lower the combustion of coal but increase it while ensuring that the process is clean and efficient," said Liu.

Environmental Protection Minister Chen Jining said during the ongoing annual session of the National People's Congress that the air pollution in the country is caused mostly by the irrational energy structure, or more specific, coal burning.

"We have attached great importance to the adjustment of energy structure. The Chinese government is now promoting low emission projects in coal-fired power plants."

"The widespread smog in China has increased the pressure for clean use of coal," said Wang Xianzheng, president of the China National Coal Association. "In the long run, the growth rate of coal consumption in China will drop. However, the total volume of the consumption will keep increasing as China speeds up in industrialization and urbanization."

CNC statistics showed that by 2020, China's coal consumption will reach 4.8 billion tons, up 1.2 billion tons from 2013.

According to Wang, developing clean-coal technologies is one of the most effective method for China's environmental woes because the country relies heavily on imported petrol and natural gases and new-energy use still accounts for a relatively low percentage in the total energy structure.

INVESTMENT

Alibaba arm gets Temasek, GIC funds

By BLOOMBERG and CHINA DAILY

Alibaba Group Holding Ltd's logistics offshoot Cainiao has attracted investment from Malaysia and Singapore, including Temasek Holdings Pte, in its first round of external fundraising since being created in 2013.

Zhejiang Cainiao Supply Chain Management Co, to give its full name, also gained funding from global investment firm GIC Pte and sovereign wealth fund Khazanah Nasional Bhd which is expected to bankroll its expansion, according to a statement on Monday.

The company declined to specify the amounts raised or the stakes sold, although Caixin reported that its delivery network is now valued at about 50 billion yuan ($7.7 billion) as a result of the funding round.

Cainiao facilitates the delivery of 70 percent of China's express packages using a network spanning 2,800 counties at home, and in 224 countries and regions globally.

Chief Executive Officer Tong Wenhong said the company is now angling toward a public offering to bankroll further expansion.

"If e-commerce was the focus of China's economy in the past 10 years, logistics will be the focus for the next 10," Tong said in the statement.

In an interview with Sina.com on Monday, she said most of China's e-commerce firms have built their own logistics networks to deliver goods, including huge and expensive investment in warehouses and delivery teams, and led to losses in many cases.

"But in fact, the logistics industry can use big data and collaboration to reduce costs and increase efficiency," she said.

Founded by Alibaba with a consortium of logistics companies, however, Cainiao is different in that rather than expanding its own network it operates a proprietary logistics information platform, that links a network of providers, warehouses and distribution centers, which offers efficiency and cost savings.

> **$7.7 billion**
>
> reported current value of Cainiao's delivery network as a result of the funding round

The new investment, Tong said, will be used to build up Cainiao's core businesses, including its own warehouses and cross-border delivery services, expand its rural delivery abilities and support its business partners.

Alibaba initially had a 48 percent stake in Cainiao after creating it with department store chain Intime Retail Group Co and industrial conglomerate Fosun International Ltd. The business had 700 employees in June last year.

China's logistic cost accounted for 16 percent of the country's GDP in 2015, creating 30 million jobs, according to the China Federation of Logistics & Purchasing.

The sector's dramatic growth has been largely driven by China's rapidly expanding online retail market, which itself was worth 3.83 trillion yuan in 2015.

Statistics from China Express Association show that as many as 20.6 billion parcels were delivered last year, a 48 percent increase.

Meng Jing contributed to this story