

"China speed" in clean energy business (Xinhua)

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In the last several decades, Chinese people have become known for their speed and efficiency to develop things. When they rush to clean-energy business opportunities, the phenomenal growth of related industries lives up to the often-cited term "China Speed".

During the last few years, China has taken "huge strides forward" in renewable energy, as UK energy and climate secretary Ed Miliband put it, according to the British daily Financial Times(FT).

This certainly lends some confidence to China's representatives at the ongoing Copenhagen climate summit, though their country is one of the world's largest emitters of carbon dioxide.

-- Within the last six years, China jumped to become the world's largest producer of solar energy panels, or solar photovoltaic (PV). Last year, China manufactured over 2,000 megawatts of solar PVs, accounting for more than 30 percent of global production. But in 2003, China's share was merely one percent.

-- At the end of last year, China also had more than 130 million square meters of solar water heaters, accounting for 76 percent of the world's total.

-- Within the last six years, China's installed wind power capacity jumped to 12,170 MWs at the end of 2008, from 470 MWs at the end of 2002. Its annual wind turbine manufacturing capacity soared to 10,000 MWs from less than 100 MWs in 2003.

-- Within the last six years, China's once-unknown automaker BYD emerged from global electric car map. It is the world's second-biggest producer of rechargeable lithium-ion batteries, backed by U.S. billionaire investor Warren Buffett.

These figures look pretty nice. No wonder the FT reported on Nov. 3 that China "has played climate cards beautifully," which was written by its Beijing chief correspondent Geoff Dyer.

On the same day, Dyer's colleague and FT's environment reporter in Beijing Fiona Harvey, while chairing a panel discussion of solar power, asked panelists: China took the lead in the solar power industry within just five or six years, why?

Gao Jifan, Chairman and CEO of the Nasdaq-listed Trina Solar, one of China's largest solar module manufacturers, gave her his answer -- survival pressure.

Gao said China had to import the essential raw material polysilicon at high prices for solar PV manufacturing, which forced Chinese companies like Trina Solar to quickly improve technological skills to lower cost.

By now, manufacturing skills among Chinese companies were as good as those western counterparts, if not better, Gao told the panel.

Huang Min, president of Himin Solar Energy, the world's largest maker of solar water heaters, said it was the strong desire to develop and business sensitivity that had been driving Chinese to quickly seize low-carbon business opportunities since they had been poor for decades before reform and opening-up in 1978.

"Certainly I have the desire, and I want to develop (and get rich). I don't think we are inferior to foreigners," he told Xinhua.

Last year, his company sold 3 million square meters of solar panels, more than double of the U.S., according to Himin Solar Energy. "Should the Americans be able to sell so many heaters each year, President Barack Obama would be extraordinarily happy."

Huang insisted his success didn't have much to do with Chinese policies since the government offered no preferential measures for the sales of solar water heaters.

The 51-year-old energetic businessman, however, said the reform and opening-up has indeed created good atmosphere and play field for entrepreneurs.

In the wind energy sector, things seem to be different. Both secretary general of the Global Wind Energy Council Steve Sawyer and vice-president of the China Wind Energy Association Shi Pengfei saw government's encouragement as the main driver behind the expansion of wind energy.

"Certainly the main driver has been government policy and clear signals it has sent to the market, and I'm sure the spirit of Chinese entrepreneurs has also contributed to the rate of growth," Sawyer told Xinhua via email.

Sawyer said the expansion partly resulted from "the close alignment between (wind power) industry and government".

"I think it goes deeper than that and is an artifact of the culture which contributes to the rapid execution of agreed policy in a way which I don't see in any of our other main markets," he said.

Shi said while government's policies had been the main driver for wind energy expansion, the market also played a major role in helping foster a strong manufacturing industry of wind turbines.

China's push for more wind power has helped create huge market demand for wind turbines. As a result, manufacturers popped up and investment flocked into the sector.

According to Shi, China boasts more than 80 wind turbine manufacturers currently, with a combined production capacity of more than 10,000 MWs. In 2004, China had only six manufacturers.

"In the last few years, the wind energy sector has never been short of money. As long as you have technologies or projects, investment will come to you very quickly," he told Xinhua.

U.S. Energy Secretary Steven Chu has his own assessment on expansion of China's clean energy. He said on Nov. 30 in South Carolina that China was spending 9 billion U.S. dollars a month on clean energy and it had passed the United States and Europe in high-tech manufacturing.

But many would say Chu's assessment sounded too rosy, at least on advanced clean energy technologies.

The UK think-tank Chatham House, in a report released this September, suggested that China lagged far behind developed countries regarding energy innovations and advanced technologies. The report, involving nine months of research across the technologies and over 30 sub-sectors, made analysis of 57,000 patents and the market adoption rates of energy technologies.

Emerging economies such as Brazil, China and India had no companies or organizations in the top 10 positions in any of the sectors and sub-sectors analyzed, it said.

It served to explain why China has repeatedly asked industrialized countries to transfer their clean-energy technologies.

Shi Pengfei said many Chinese wind turbine producers, which had never designed and produced a complete wind turbine, bought production licenses from overseas firms and jumped straight to making turbines.

Without the process on basic research and technological accumulation, Chinese manufacturers had been criticized for producing low-quality wind turbines, he said.

In addition, there was also increasing concern of over-capacity in the manufacturing sectors of both wind and solar power, which had recently even caused a dispute between central governmental departments.

Shi believed that overcapacity could probably be a reality in the wind energy sector since China was expected to install 7,000 MWs of wind turbines annually on average in the next 10 years, at least 3,000 MWs less than China's current manufacturing capacity.

Shi, however, said overcapacity, to some extent, could be a good thing because it would trigger fiercer competition among manufacturers. In the end, only those making good-quality turbine sat lower prices would survive, he added.