The sun is out WANG YING 2005-12-26 07:12

In the West, advocates of alternative energy are often labelled hippies. The stereotype of alternative energy firms being environmentally well intentioned but economically nave, is well entrenched.

Not so in China, where the owner of a privately owned solar energy company recently became one of the country's richest people when his firm floated on the New York Stock Exchange two weeks ago.

Shi Zhengrong now has assets valued at more than US\$1.4 billion.

His company, SunTech Power Holdings, based in East China's Jiangsu Province, manufactures photovoltaic cells that turn sunlight into electricity. It made its listing debut in New York on December 14, issuing 26.4 million American depositary shares at US\$15 each.

On the first day of trading, Suntech shares shot up 41 per cent to US\$21.2, putting Shi Zhengrong, on China's billionaire list.

Shi holds 68 million of the company's shares, 47 per cent of SunTech's total capital stock.

The 44-year-old academic-turned businessman set up SunTech after spending more than 10 years researching solar energy in Australia.

Since its establishment, production capacity at the new energy company has risen to 120 megawatts (MW). It plans to double capacity to 240 MW over the next year - a level none of its competitors are expected to match, according to Renaissance Capital, an IPO research firm based in the United States. SunTech 'sincome grew 129 per cent in the first nine months of this year.

The bullish performance of SunTech shares mirrors investor's enthusiasm for the fast-growing alternative energy sector.

"Potential for the development of renewable energy is enormous, as energy source diversification is a fundamental way to ensure future energy security," Li Junfeng, secretary-general of the China Renewable Energy Industries Association (CREIA), tells China Business Weekly.

In a move to address the world-wide energy shortages as well as the rocketing price of fossil fuels such as oil and coal, countries around the globe are pushing the development of the new energy options including wind, solar, biomass and hydrogen.

On a global scale, the solar panel industry's annual turnover will grow to US\$18.5 billion by 2010 from US\$6.5 billion in 2004, according to US-based energy consultancy Solarbuzz Inc.

Industry analysts predict annual growth of more than 30 per cent to 2010.

China's situation

In a country which relies on coal to drive more than 70 per cent of its power plants, the need for alternative energies in China is particularly pressing.

Adoption of alternative energy will not only help meet growing energy demand, but also cut pollution.

The Chinese Government will enact the country's first law on the promotion of renewable energies from the start of next year.

The law will set the target of making renewable energies responsible for supplying 15 per cent of the country's total energy demand within 15 years, up from the current 7 per cent.

CREIA's Li says China will invest trillions of yuan into the development of renewable energy to reach the 2020 target.

Market observers say that, considering a range of factors including cost, technology and natural resources, wind farms, small hydroelectric plants and nuclear power stations are the most viable options for large-scale power generation.

Renewable energy or alternative energy refers to any form of power generation that is not reliant on non-fossil fuels, this covers wind and solar power and biomass, hydroelectric and nuclear plants.

China is able to supply 80 per cent of the technology and facilities needed for the construction of wind farms.

In order to boost the use of wind-generated electricity, the country's first renewable energy law sets the kilowatt-hour price of wind generated power 0.3 yuan (3.7 US cents) to 0.4 yuan (4.9 US cents) higher than for coal-generated electricity. Grid companies will be obliged to buy all electricity generated from renewable energy sources.

China has set a target of generating 30 (gigawatts) GWs of electricity using wind power by 2020, up from an estimated 1 GW at the end of this year, according to sources from the National Development and Reform Commission (NDRC).

Total investment of up to 300 billion yuan (US\$37 billion) will be needed to reach the target.

Li predicts the development of China's wind power network will have to have sustained annual growth of 30 to 40 per cent over the coming 15 years, faster than previous years' 20 per cent or so.

At an earlier renewable energy forum, Wu Guihui, deputy director of the NDRC's energy bureau, told China Business Weekly that large-scale wind farms are planned in the provinces of Gansu, Jiangsu, Hebei and Jilin. Total installed capacity of these farms will be 1 GW.

In relation to hydro and nuclear plants, the country already owns the technology required and already has a number of hydro-plants and nuclear bases, accounting for 24.5 per cent and 1.6 per cent of the country's total installed generation capacity. The price of electricity produced by water and nuclear sources is already competitive with coal-generated power.

The NDRC says China's hydro-plant capacity will more than double to 246 GW by 2020, from last year's 108 GW. Total investment is expected to reach 600 billion yuan (US\$74 billion), Li says.

China National Nuclear Corp, the country's biggest nuclear reactor builder, earlier this year said it had budgeted 400 billion yuan (US\$49 billion) for the next 15 years.

The nation plans for nuclear power to account for 4 per cent of the country's total generation capacity by 2020, more than double the current level. That will mean the building of 30 or so new nuclear reactors in the next 15 years.

The large scale use of solar energy to generate electricity is currently blocked by the high costs involved.

It costs generators up to 10 times more to generate electricity from solar energy than from wind or hydro sources..

Insiders have called for the government to offer incentives such as subsidies or tax rebates to solar equipment manufactures, technology researchers and project developers, to boost the solar sector.

Under current plans, the country will invest 10 billion yuan (US\$1.2 billion) in the next five years in installing solar power generators in rural areas of West China that are not connected to the national electricity grid.

As the energy sector evolves, analysts are still bullish about the prospects for solar power.

"At present, most of the (solar energy) demand is from Europe, with potentially more growth coming from California, China, Spain and Italy," Macquarie Bank says in a research report.

Last year, SunTech sold 72 per cent of its solar energy products to Germany, and 8 per cent to China. But the two figures changed to 50 per cent and 20 per cent respectively in the first nine months of this year.

An increasing number of international solar cell makers such as California-based SunPower Corp, which also listed in New York last month, have set up cell installation facilities in China.

"They are eyeing the burgeoning solar energy market, which will burst into billions of dollars worth of opportunities when the government introduces more incentives," Wang Wenjing, deputy director of Beijing Solar Energy Research Institute, tells China Business Weekly.

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