

China Clean Energy Report

**Nurturing Clean Energy Industry
and Boosting Future Development**

May 16-31 2009, Issue 2



**China Plans \$440bln Stimulus for
Green Energy**

**China's Energy Saving Target Must
be Ensured**

SGCC to Complete Smart Grid by 2020

China Plans \$440bln Stimulus for Green Energy

China is planning a stimulus package worth \$440 bln to expand its renewable energy use, state media said on May 24, as the country aims to rely more on cleaner ways to power its growth.

The CNY 3trn (\$439.7 bln) investment will see part of the focus on wind power, the Beijing Morning Post reported, citing Liang Zhipeng, a Chinese State Energy Administration official.

The government has collected opinions from local economic planning agencies and relevant companies about a draft plan, Liang said, according to the report. Under the plan, China's wind power capacity will reach over 100 gigawatts by 2020, the report said, more than triple a goal of 30 gigawatts announced in 2007 in a renewable energy development plan.

Zhou Xi'an, a director general at the State Energy Administration, said last week China aimed to boost the share of renewable energy, excluding hydro power, to 6% of its overall energy use by 2020, from the current 1.5%. He said the new plan would be submitted to the State Council, or Cabinet, for approval, with a result expected soon.

The news about the latest stimulus plan came after China announced measures to support autos, petrochemicals and eight other sectors as part of a \$584 bln package unveiled in November to tackle the financial crisis.

China now depends on coal for nearly 70% of its total energy consumption. The country has also set a goal to cut energy consumption per unit of gross domestic product by 20% and pollution by 10% by 2010 from levels in 2005. (05-25-2009)

China's Energy Saving Target Must be Ensured

China is "hopeful" to meet energy-reduction targets next year as part of plans to cut greenhouse-gas emissions, the official Xinhua News Agency reported, quoting a top economic planner.

Cutting energy consumption per unit of gross domestic

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China Clean Energy Report is a bi-weekly professional report focusing on clean energy sector in China. Our readers are from decision makers, industry associations, utility operators, investment banks and other relative enterprises. Welcome your inquiries and thank you for your recommending to your colleagues.

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product by 20 percent by 2010 compared with levels four years ago was a "solemn promise" China had made to the world, Xinhua quoted Xie Zhenhua, deputy director of the National Development and Reform Commission, as saying.

As one of the world's major CO² emitter, China has been making consistent efforts to curb pollution and save energy through improving industrial structure. However, some experts worried that, affected by the global financial

crisis, Chinese enterprises may have less impetus for spending on emission reduction in 2009. Xie said, the goal has been met by half, and the task remains arduous.

China plans to eliminate 15 million kw of power-generating capacity in small coal-powered plants, as well as obsolete capacity of 10 million tons in the iron industry and 6 million tons in the steel industry this year. (05-20-2009)

SGCC to Complete Smart Grid by 2020

The State Grid Corp. of China (SGCC) will complete a smart grid across most of China by 2020, a top SGCC executive said at the 2009

Ultra-high Voltage (UHV) Power Transmission International Summit, state media reported on May 22. (05-22-2009)

MOF Announces Subsidy for New Energy Industry

China plans to provide subsidies to support the country's new energy industry, the Ministry of Finance (MOF) said at a meeting with provincial officials.

Although the financial situation is still tough this year, the MOF will allocate CNY 30 billion (\$4.39 billion) for energy conservation projects and another CNY 8 billion (\$1.17 billion) for the renewable energy sector.

The government will provide incentives to boost the development of wind power and the construction of solar power plants, eliminate facilities with high energy consumption, build more wastewater treatment facilities and advocate clean production procedures to protect the environment.

In addition, the MOF will partner with the National Development and Reform

Commission (NDRC) to provide cash incentives to consumers to encourage them to buy new fuel vehicles and energy-efficient home appliances.

Supporting the new energy and energy conservation sectors is an effective way to enhance international competitiveness, expand domestic demand, cultivate new growth sectors and maintain sustainable development, said Zhang Shaochun, vice-minister of finance.

In the three previous years, the government allocated CNY 15.7 billion (\$2.3 billion) for ten energy-saving projects. This year, the government has allocated CNY 210 billion (\$30.7 billion) from the CNY 4 trillion (\$585.3 billion) stimulus package for energy savings and emissions reduction. (05-25-2009)

China State Council to Discuss New Energy Stimulus Plan

China's top economic planning agency would soon submit a draft support plan of the country's new energy industry to the State Council, China's Cabinet, for approval, the Shanghai Securities News reported on May 25.

Zhou Xi'an, an official of the National Bureau of Energy under the National Development and Reform Commission (NDRC), was quoted by the newspaper as saying the plan would be unveiled "very soon", without specifying a time table. The

support plan would focus on nuclear power and renewable energy as wind and solar power, Zhou told the newspaper on May 22 at a national energy forum held in Beijing.

Zhou said the NDRC had finished discussions on the plan. He also said China is aiming to raise the proportion of renewable energy, excluding hydropower, in the country's total energy consumption to more than 6 percent by 2020, up from the current 1.5 percent.

He added that the country would give financial

support to research and development on technologies that are key to self-made equipment for nuclear and wind power facilities.

However, he did not reveal the amount of investment the country is planning for the new energy development.

Liang Zhipeng, head of the new and renewable energy division of the Bureau, said the draft had to go through discussions within the NDRC after opinions were sought from firms, local NDRC branches, and relevant ministries. (05-23-2009)

China to Offer Subsidies to Boost Photovoltaic Market

China will offer government subsidies to enhance the development of the domestic photovoltaic market, in a move to help China tap more clean and new energy, the Finance Ministry said on May 21.

A statement posted on the ministry's website said that fiscal subsidies will be offered to speed up the launch of the domestic photovoltaic market. It did not elaborate. The statement also cited Zhang Shaochun, a vice-finance minister, as telling an internal working meeting that China would adopt a mix of policies, especially fiscal and tax ones, to promote new energy development and help reduce pollution.

"We should concentrate our efforts to support new energy and energy-saving industry in order to take hold of the commanding ground of the new emerging industries," Zhang was quoted as saying.

China will offer subsidies to cars using new energy in 13 cities, including Beijing and Shanghai, according to the statement. It also said that China would build more large-scale wind-power bases and offer awards to areas that work well in eliminating outdated industrial capacities in 13 sectors such as power and steel. (05-21-2009)

China Subsidizes Green Home Appliance Consumers

China will subsidize consumers who buy energy-efficient home appliance, which is expected to help cut carbon dioxide emission

by 75 million tonnes annually, the National Development and Reform Commission said in a statement on May 21. (05-21-2009)

Jiangsu Targets \$65.9b From Clean Energy

Jiangsu province has created a new energy plan under which the new energy industry will record sales revenue of CNY 450 billion (\$65.9 billion) annually by 2011, reports spvchina.com. The province expects to generate revenue of CNY 350 billion (\$51.2 billion) from the production of 10GW of solar cells and modules, while sales of wind

power equipment with a capacity of 4GW will bring the province CNY 80 billion (\$11.7 billion).

Jiangsu generated CNY 90 billion (\$13.2 billion) in new energy in 2008. Jiangsu accounted for 1.58GW of China's total 2.54 GW of PV power production capacity in 2008, making it the country's biggest PV energy producer, the report said. (05-25-2009)

China Ranks 4th in Wind Power Capacity

China now ranks fourth in wind power in the world with a total installed capacity of 12 million kilowatts, said Lu Yanchang, vice chairman of the China Science and Technology Association at the fifth China Energy Strategy Forum.

China's wind power capacity is just behind the U.S., France, and Spain, said Lu, adding that wind power has become a major force in China's new energy sector. As of the end of 2008, China had built more than 200 wind power plants and had generated 12.8 billion kwh of electricity, accounting for 1.5% of

country's total electricity generation capacity.

During the period of the 11th Five-Year Plan, China will construct several large-scale wind power projects in the eastern coastal region and western and northern regions. By the end of 2020, China's installed wind power capacity is expected to be between 80 million kw and 100 million kw.

China has abundant wind resources. Proven land wind resources total 253 million kw and coastal wind resources total 750 million kw. (05-26-2009)

Hunan Earmarks \$176m for Wind Power in 2009

Hunan province plans to invest CNY 1.2 billion (\$ 175.6 million) in the wind power industry in 2009 and have an annual production of 1 GW within the next ten years, reports rednet.cn May 19.

project, currently under construction by China Huadian Corporation's Hunan subsidiary among others, may begin production before 2010, according to subsidiary Vice General Manager Zhou Xiao'ou. (05-20-2009)

The 77.44 million kWh per year Yangtian Lake

Datang to Build 200MW Wind Farm in Shandong

Chinese state-owned power company Datang will build a 200MW wind farm in Pingdu, Shandong Province, and has completed on-site wind energy testing and is working on the feasibility study for the construction of the wind farm.

The CNY 2bln (\$293m) wind farm will consist of 120 turbines each with a capacity of 1.66MW each, located in 4 districts in Pingdu, including Yunshan, Xianshan, Xinhe and Jiaolaihe

Districts. The first 50MW of the project will consist of 30 turbines in Yunshan costing CNY 500m (\$73m).

With more and more wind farms being built in Qingdao and Weihai in Shandong Province, the provincial government estimates that the total wind power capacity in Shandong province will reach 10GW by 2010. (05-19-2009)

Huaneng Starts Construction of 49.5MW Wind Farm

Chinese project developer Huaneng Renewable has started construction of a 49.5MW wind farm in Santanghu, Xinjiang. The CNY 450m (\$65.7m)

project will have 66 units of 750kW wind turbines, and is expected to be commissioned by December 2009. (05-15-2009)

Huaneng's 199.5MW Wind Project Approved

Huaneng Power International, Inc. announced May 20 that its 199.5MW Gansu Ganhekou Second Wind Power Project has been approved by the National Development and Reform Commission.

Total investment in the project is expected to reach about CNY 2 billion (\$292.7 million), with Huaneng providing 33.3% of funding and the rest coming from bank loans. (05-20-2009)

Sinovel Starts Producing China's Largest Offshore Wind Turbine

Sinovel Wind Co. Ltd., one of China's largest wind turbine manufacturers, has started mass production of 3-megawatt (MW) offshore wind

turbines, which are the largest in production in China, Interfax reported on May 21 citing a company employee. (05-21-2009)

Hanwei Secures \$95.1m Credit Line

TSX-listed power equipment maker Hanwei Energy has secured a credit line of CNY 560m (\$95.1m) from China Construction Bank, to fund its wind power business. Hanwei said the debt facility will be used to fund its fiberglass reinforced plastics pipe and wind power equipment business, and the company hopes this would help to achieve its target of 40% to 60% revenue growth in 2009.

Hanwei has been actively expanding its wind presence in China since 2008, when it acquired a 99% stake in Chinese wind turbine maker Daqing Deta. Earlier in April, it signed an agreement to establish a wind turbine manufacturing subsidiary in Baotou in Inner Mongolia and has received a preliminary order of 400MW of wind turbines. (05-18-2009)

Siemens to Build Wind Turbine Plant in Shanghai

Siemens AG on May 22 began construction of a new wind turbine manufacturing plant in Shanghai to further enhance its environmental portfolio by taking advantage of the Chinese government's favorable policies for renewable energy development.

The plant located in Shanghai's Lingang New City, covering a land area of 180,000 square meters. The production facility will be operational with 500MW wind power capacity in the second half year of 2009. In the early stage, Siemens will produce blades for 2.3 MW and 3.6MW wind turbines in its production site in Lingang mainly for the Chinese market and for export. Wind turbine plant nacelles will also be produced in the plant.

It is estimated that Siemens will pour over EUR 60 million (\$82.72 million) into the new production site. The company also reserved space in Lingang for further expansion to increase capacity to 1,500MW in the second

phase and to 2,500MW in the third phase, said Martin Meyer ter Vehn, general manager of Siemens Wind Power Blades (Shanghai) Co.

This investment is in line with the company's commitment of developing environmentally-friendly energy technology in China, said Mr Wolfgang Dehen CEO of the Siemens Energy Sector and member of the managing board of Siemens AG, adding that China will soon become the largest wind power market in the world and Siemens is making a very good start to meet the growing demand in this market.

The Chinese government requires that 70% of wind plant equipment should be made domestically, which has attracted many MNCs to set up plants in China. Local firms such as Shanghai Electric Group and Huayi Electric Co Ltd are building or planning for wind-power equipment plants in Lingang. (05-26-2009)

China's Goldwind Gets \$614m in Contracts

China's wind power leader, Goldwind Science and Technology Co., said on May 22 it had won six contracts worth a combined total of CNY 4.19 billion (\$614 million). The value of the contracts is equivalent to 64.86 percent of the company's 2008 sales under domestic accounting standards, it said in a stock

exchange filing.

China's wind power generation has doubled in the last year and is expected to surpass nuclear power within a decade as China seeks to wean itself off cheap but dirty coal. (05-22-2009)

LDK, ESPE to Work on Italian Solar Projects

LDK Solar Co. Ltd., a manufacturer of multicrystalline solar wafers, has entered into an agreement with ESPE Srl, a system integrator within the photovoltaic (PV) sector, to develop PV plants in the Apulia region of Italy.

Construction has commenced on the first of five plants totaling 5 MW. LDK Solar will supply wafers for the PV project and ESPE will provide engineering, procurement and construction services, as well as system integration.

Xiaofeng Peng, chairman and CEO of LDK Solar, said, "The PV market in Italy is one of the most interesting European markets and is forecasted to grow significantly over the next three years. Our agreement with ESPE is a strategic milestone for us as we strengthen our position in the PV power plants market in Europe and continue to build a foundation to capture future opportunities." (05-26-2009)

LDK Solar May Enter Downstream PV Business

LDK Solar Co Ltd., the world's largest manufacturer of multicrystalline solar wafers, is considering extending its business downstream into the PV market to become a vertically integrated PV production firm, the Shanghai Securities News reported.

Peng Xiaofeng, founder and CEO of the wafer giant, said the company would not rule out the possibility of setting up JVs with global enterprises in the same industry to manufacture PV product components and systems. Last month, LDK Solar established a joint venture with Germany-based Q-Cells, the world's largest manufacturer of PV cells, aiming to develop PV systems and expand in

the markets in Europe and China.

The global PV market will expand because the prices of upstream PV materials will change due to the impact of global financial crisis, said Peng. The cost of solar power components used to be CNY 4 (\$0.585) to CNY 5 (\$0.731) per unit, but now is below CNY 2 (\$0.293). When ordinary people can afford solar technology, there is gigantic business potential in the PV market, added Peng.

Last year, LDK Solar saw its revenue surge 214% from a year earlier to \$1.6 billion. (05-27-2009)

Huadian to Build Two PV Power Projects in Shanghai

China Huadian Corp., one of China's leading power generators, announced on May 26 that it has received approval from the Shanghai Municipal

Development and Reform Commission to start preparing the work sites of two new PV power projects. (05-27-2009)

Huanting to Invest in 16MW Xiamen Solar Station

Xiamen-based Huanting Solar plans to invest more than \$65 million to build a 16MW solar power station in Xiamen, Fujian province, reports Wenhui Daily. The Taiwan-funded company plans to spend \$5 million to establish an operating and research and development (R&D) center for solar electricity, and it also plans to purchase 8.67 hectares of land for the solar station, said the report.

The project expects to submit an application to the National Development and Reform Commission (NDRC) soon and will finish construction two years after receiving approval, according to the plant's Operating Director Weng Shengwen. The company may cooperate with AU Optronics Corp. and Suntech Power Holdings on solar panels and modules in the future. (05-25-2009)

Lvzhou New Energy Plots 200MW Thin Film Project

Jiangsu-based Lvzhou New Energy plans to begin construction of a \$600-million amorphous silicon thin-film solar cell project in Zhenjiang, Jiangsu province in July, reports Mei.gov.cn. The three-phase project is

expected to reach annual capacity of 200MW, with its \$98-million first phase expected to record annual production value of \$100 million, said the report. (05-25-2009)

Suntech Starts 1.5MW Rooftop Solar Project in Jiangsu

Suntech Power Holdings Co Ltd, China's leading solar power company, has started the construction of a 1.5 megawatt rooftop solar system project in Huai'an City, Jiangsu Province, sources reported.

The solar project, which is expected to be completed by October 2009, will be the country's first solar project with megawatt capacity, said Luo Yi, the spokesman from Suntech.

The company will partner with state-owned Jiangsu Guoxin Asset Management Group, which is entitled to receive the recently

announced subsidy for rooftop solar systems.

The company hopes to design and install many similar rooftop solar systems across China, said Zhengrong Shi, Suntech's chairman and CEO, adding that the company is confident it will bring high quality solar systems to the China market, and has a large number of projects that may receive subsidy approval.

As of the end of 2008, total global solar power production was 6,100 megawatts, of which China's production accounted for 2,000 megawatts. Jiangsu Province alone produced 800 megawatts. (05-21-2009)

Suntech Courts Subsidies With 1.5MW BIPV

Solar cell and module manufacturer Suntech Power Holdings announced on May 19 that it plans to create a 1.5MW rooftop solar system covering 19,000 square meters on a building housing a subsidiary of Jiangsu Guoxin Asset Management Group in Huai'an, Jiangsu province. Scheduled to be complete by October 2009, the project will be the province's first grid-connected system of more than one megawatt.

Suntech expects the system will be eligible to receive China's recently announced subsidies of CNY 15/watt (\$2.2/watt) for rooftop- and wall-based photovoltaic projects. More than 200MW of projects plan to apply for building integrated photovoltaic and rooftop subsidy program in Jiangsu province, an industry representative said at a late April subsidy meeting in Suzhou. (05-20-2009)

China Working on National Plan to Address Climate Change

China is drafting a long-term plan for climate change that will focus on raising energy efficiency, developing clean-coal technology and expanding carbon-absorbing forests, a top climate policy official said.

Xie Zhenhua, a deputy chief of the National Development and Reform Commission who steers climate change policy, said the plan would strengthen China's "capacity to enforce international covenants". The plan is aimed to better tackle the climate change and boost economic growth in the meantime, Xie added.

The Chinese chief climate negotiator did not elaborate the plan, only saying that the country eyes on accumulating useful experiences to establish a low-carbon economy through some pilot projects.

In 2007, a national leading group on climate change, headed by Premier Wen Jiabao, was set up to oversee the issues related to

climate change. In the same year, the Chinese government issued the National Climate Change Program, the first of its kind issued by a developing country, which worked out the strategies and measures to tackle climate change.

China's "green" determination has been boosted by the country's achievements in its environmental initiatives. Figures show China's energy consumption per unit of GDP dropped 4.59 percent in 2008, and 10.08 percent from 2006 to 2008.

Combating the climate change cannot be slowed by the global financial crisis, Xie said. However, he noted that expectations put on China by the international community should be "fair and reasonable", citing the fact that China's current average per capita greenhouse gas emission volume is only a third of that in developed countries. (05-20-2009)

China to Boost Clean-Energy Use on Climate Change

China will boost its ability to produce power from clean energy sources to 35 percent of total capacity by 2020 to counter climate change, State Grid Corp. said.

The capacity to generate power from clean energy sources will reach 570 gigawatts by then, Liu Zhenya, the grid operator's president, said in a speech at a conference in Beijing on May 21. He said the country's electricity demand and capacity will double by 2020, and consumption may reach 7.7 trillion kilowatt-

hours a year, while capacity may total 1,600 gigawatts by then.

China became the world's biggest emitter of greenhouse gases from burning oil, coal and natural gas in 2006, followed by the U.S., Russia, India and Japan, according to U.S.

Department of Energy data. About 80 percent of China's electricity is produced by coal-fired power plants. (05-21-2009)

China to Suggest Developed Countries Cut Emissions

China is suggesting that developed countries reduce greenhouse gas (GHG) emissions by 40 percent of their 1990 levels by 2020, according to a statement that the government

released on May 21, which outlines its stance for the December conference on climate change in Copenhagen, Denmark. (05-22-2009)

Beijing Orders 910 Green Buses for 2009

The Beijing municipality has ordered 910 hybrid and electric buses for 2009, of which 800 hybrid buses were bought from auto maker Beiqi Foton, and the first 50 buses scheduled for delivery this June. According to Beiqi Foton, the buses could save 30% of fossil fuel, and run 100km on full electric power before gasoline engine kicks in.

The Beijing municipal government also ordered 50 electric buses, but no details were disclosed.

Monthes earlier, the Chinese government has launched a programme to promote green vehicles used in public services in 13 cities including Beijing. According to the programme, subsidies of CNY 420,000 (\$36,500) and CNY 500,000 (\$73,000) will be granted to a hybrid bus and an electric bus respectively. As a result, the Beijing municipal government will receive a total subsidy of CNY 366m (\$53.4m) from the Ministry of Finance. (05-15-2009)

Greener Cars Get Cash Infusion

From the beginning of next year until the end of 2011, people in Shanghai will be eligible for subsidies of up to 20 percent of the purchase price of a alternative-fuel vehicle if it saves at least 15 percent energy. They may also be exempt from paying tolls.

The proposal, still in draft form, is part of the local government's efforts to promote green-energy vehicles in the run-up to the World Expo. Shanghai has pledged to introduce 1,000 alternative-fuel vehicles for the upcoming exposition.

Wang Zhe, project manager from Shanghai Alternative-fuel Vehicles Promotion Office, said the policy, if approved, would undoubtedly boost the popularization of alternative-fuel cars. He also said the city will have built one electricity-charging station and a hydrogen-filling station by next February in preparation for the event.

Lan Zhibo, deputy director of New Energy

Technology Center of Shanghai Automotive Industry Corporation, said the proposed subsidies in Shanghai would largely compensate for the price difference between a conventional car and a new one that runs on alternative fuel whose higher sticker price might otherwise scare off potential buyers. But He said it may take another three or more years for the construction of facilities like hydrogen-filling and electricity-charging stations to meet the needs of commercial operation.

China's Ministry of Finance and Ministry of Science and Technology jointly launched a nationwide program early this year to give public transportation companies and government agencies cash incentives for alternative-energy buses.

Authorities also said earlier that it would offer consumers a cash incentive to scrap their old cars and buy new ones with higher emission standards. (05-20-2009)

WB to Lend \$80m for Clean Coal to China

The World Bank has agreed to lend \$80 million to China to help it increase the development and utilization of coal bed methane (CBM) and coal mine methane (CMM) as substitutes to coal.

The loan will help China meet growing demand

for energy and reduce greenhouse gases and local air pollutants.

The Coal Bed Methane Development and Utilization Project will focus on Shanxi province, which produces one quarter of China's coal production of 2.6 billion tons and

hosts one-third of the estimated 32 trillion cu m CBM resource in the country.

The project will finance the exploration and development of about 350 vertical CBM production wells with an estimated annual production capacity of 250 million cu m, and the construction of a Liquefied Natural Gas (LNG) plant with production capacity of 200,000 tons per year.

As part of the overall government efforts to promote cleaner energy resources, and improve the safety of mining operations, the Chinese government plans to increase significantly the development and utilization of CBM/CMM resources.

CBM/CMM utilization projects are operated and planned in at least 13 countries including China, Australia, Germany, Japan, Poland, and the US. The total methane emission reductions that could be achieved by these projects are approximately 135 billion cubic feet per year, equal to 14.8 million tons of carbon equivalent per year, according to a recent release from Energy Business Reports.

The World Bank has also supported the world's largest CMM capture and utilization project in Shanxi province to help reduce greenhouse gas emissions through carbon finance. (05-21-2009)

Huaneng Pushes Carbon Capture But Costs Bite

Chinese power giant Huaneng will launch its second pilot carbon capture project in Shanghai at the end of this year, but high costs are holding back further progress, an executive with the company said.

"It is very, very expensive," said Jiang Minhua, director general of Huaneng's science and technology department. "Carbon capture costs around CNY 200 (\$29.31) per tonne using current technology. And actually handling it, processing it so it can be used industrially, will cost another CNY 150 (\$21.98) per tonne," Jiang said.

China's coal-dominated power generation capacity has been soaring by 70 gigawatts a year and its CO² emissions are now thought to be the highest in the world. Finding the technology to burn coal more cleanly has become a priority.

By 2050, capturing CO² before it is released into the atmosphere could provide 15 percent of the cuts required to stop global warming, the International Energy Agency estimated this year, but despite a number of pilot projects across the world, the technology is far from mature.

Huaneng's Shanghai project aims to sequester

10,000 tonnes of CO² per annum from one of Huaneng's power plants, and is the "next step to industrialising the process," Jiang said, but it is only a small fraction of the plant's total emissions.

Huaneng's first facility -- launched last year at the Gaobeidian power plant on the outskirts of Beijing -- was even smaller, capturing just 3,000 tonnes of CO² per year, which is then processed and used by local drinks manufacturers. The CO² collected from the Shanghai facility will be sold to local industry, Jiang said. But "the amount of CO² that can be used in China stands at a few tens of millions of tonnes, about 1 percent of the total," he added.

While the technology for capturing carbon is expensive, the bigger problem could be storage. And there are additional problems. Installing CCS technology is also likely to reduce efficiency rather than improve it, said Herve Machenaud, chief executive of the Asia Pacific section of Electricite de France.

Some experts are sceptical CCS will offer any viable long-term solution. Far from cleaning the environment, the technology is actually "enabling" the coal and power industries to continue "business as usual". (05-25-2009)

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