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General Energy Issues

Energy agency warns of supply crunch

November 13 (China Daily) - The International Energy Agency yesterday predicted world energy demand will rise 1.6 percent per year on average between 2006 and 2030 and called for massive investment in energy infrastructure to prevent a supply squeeze.

The IEA's base scenario for energy demand has fallen due to the global economic slowdown and higher oil prices, but the agency stressed that a delay in spending on new projects due to the credit crisis could lead to a "supply crunch that could choke economic recovery".

The IEA expects demand for oil to rise from 85 million barrels per day currently to 106 million barrels per day in 2030 - 10 million barrels per day less than projected last year.

The agency said that these trends call for energy supply investment of \$26.3 trillion to 2030, or more than \$1 trillion a year, but it noted that tight credit conditions could delay spending.

"While the situation facing the world is critical, it is vital we keep our eye on the medium to long term target of a sustainable energy future," Nobuo Tanaka, the Paris-based agency's executive director, told reporters at the release of its annual World Energy Outlook report in London.

The Organization of the Petroleum Exporting Countries, which pumps around 40 percent of the world's oil, cut output by 1.5 million barrels per day from Nov 1 to counter a recent fall in the price of crude from a high of \$147 in July to under \$59 yesterday.

OPEC has also warned that crucial downstream investment - in refining and distribution - will be curtailed if the oil price is not maintained at a reasonable level.

The IEA has nearly doubled its forecast for the price of oil over the next twenty years, because of rising demand in the developing world as well as surging costs of production as oil needs to be sourced from more expensive offshore fields and state-run companies.

It hiked its forecast for the price of a barrel of oil in 2030 to just over US\$200 in nominal terms, compared to its forecast last year of US\$108 a barrel. Measured in constant dollars, it pegs oil at US\$120 a barrel in 2030, up from last year's forecast of US\$62.

Over 2008 to 2015, it predicts the price to average \$100.

Tanaka said that "while market imbalances will feed instability, the era of cheap oil is over."

Fatih Birol, the IEA's chief economist, warned that even if growth in oil demand remained static in the years to 2030, production would need to increase by 45 million barrels per day, "which means bringing four new Saudi Arabia's on stream".

Profiting from innovation, energy productivity

November 10 (China Daily) - recent survey of energy service companies (ESCOs) by the Energy Institute of the National Development and Reform Commission indicates that lack of policy support and difficulties in raising finance are major obstacles holding back the development of the country's energy management industry, according to Zhao Ming, secretary-general of the China Energy Management Company Association (EMCA).

Zhao made her remarks on October 18 at a forum on the theme of innovation in energy saving and emissions reduction, held at the 2008 China International Energy Conservation and Environmental Protection Exhibition which was held on Oct. 17-20 in Beijing. (Learn more about the exhibition)

EMCA was founded in April 2004, and the number of ESCOs registered as members grew from 47 to 153 between 2005 and 2007.

EMCA is playing a key role in the China Energy Conservation Promotion Project, a joint project of the Chinese government, the World Bank, and the Global Environment Facility (GEF). The main aim of the project is to promote the mechanism of Energy Performance Contracts (EPC) in China's energy management industry,

and provide technical assistance to the ESCOs who operate EPCs.

According to Zhao, annual investment in EPC projects increased from 851 million yuan (US\$141.8 million) in 2003 to 6.55 billion yuan (US\$1.09 billion) in 2007. In 2003 they achieved reductions of 559,900 tons of standard coal, and emissions equivalent to 361,200 tons of carbon; by 2007 that had risen to 4.46 million tons of standard coal and 3.17 million tons of carbon.

China's ESCOs also complained about lack of customer awareness of Energy Performance Contracts, a lack of sound competition in the energy services market, and shortages of technology and trained staff.

The government for its part feels it has already attached importance to energy conservation and the energy management industry. In March 2007, the State Council called for accelerated development of the energy management industry; and an amended Energy Conservation Law enacted on April 1 this year puts conservation at the top of China's energy development strategy.

The Beijing municipal government is planning major investments in energy conservation projects and subsidized loans to the industry, according to material published by the organizers of the 2008 China Energy Conservation and Environmental Protection Exhibition.

Coal efficiency set to get boost

November 3 (China Daily) -- The authorities aim to boost the efficient use of coal supplies by raising the average recovery rate of the resource in the country from about 30 percent currently to at least 50 percent by 2010, a senior government official has said.

The country's top economic planning agency, the National Development and Reform Commission (NDRC), had in 2006 set the goal of a 40 percent coal recovery rate by the end of the decade, Zhao Xiaoping, deputy director of the National Energy Administration (NEA) under the NDRC, said to participants of the 2009

China Industrial Development Forum on Saturday.

China is the world's largest coal producer and consumer. Its dependence on coal continues amid the occurrence of coal mine accidents and its use of the resource is said to be inefficient compared with those of other countries - the coal recovery rate in developed countries including the United States, Australia, Germany and Canada is reportedly about 80 percent.

China uses 3.3 tons of raw material to produce 1 ton of coal, while the US is said to use 1.25 tons.

The country's latest move to boost coal efficiency is expected to save 1.3 tons of resources for every ton of coal produced.

The authorities also aim to reduce energy consumption per unit of GDP by 20 percent, as well as cutting the emission of major pollutants by 10 percent, in the next five years.

As part of its efforts to achieve these goals, the country aims to consolidate the coal industry by building five large mines with a capacity of 100 million tons each, as well as shut polluting and inefficient small coal pits, Zhao said.

"Energy conservation and the ability to raise energy efficiency is a top priority in our energy development strategy," Zhao said.

According to a 2007 energy report issued by the Chinese Academy of Social Sciences, the country's State-owned coal mines have a mining recovery rate of nearly 44 percent, compared with a low of 10 percent seen in a number of small and private coal mines.

The low rate is mostly caused by backward and inefficient mining techniques, the academy reported. The country relies on coal to generate nearly 80 percent of its electricity, NDRC figures showed.

NGO's energy forum underway in Beijing

November 10 (China Daily) -- Today marks the start of the Joint US-China Cooperation on Clean Energy (JUCCE) China Energy Forum in Beijing, which gathers 300 delegates from

around the world in sectors ranging from government to industry to NGOs.

JUCCCE Chairwoman Peggy Liu called on participating top executives and leaders to work closely together to provide more turnkey solutions for key people in China who are impacting the world with each decision they make.

Representatives from the US Department of Energy, the US Presidents Council of Advisors on Science and Technology, China's National Development and Reform Commission (NDRC) Energy Bureau and NDRC Investment Association Committee began two days of dialogs with a call for more international collaboration.

JUCCCE is a non-profit, non-governmental organization with offices in Shanghai, Beijing and San Francisco, working to accelerate the greening of China.

JUCCCE is a virtually managed international network of advocates, corporate resources and volunteers collaborating on programs. Nixon Peabody, Dell, Owens Corning, Citi, Morrison and Foerster, GE, Tiandi Energy, SmithStreetSolution, Jones Lang Lasalle, MIT, Yale, Lawrence Berkeley National Lab are among the many international organizations that contribute to the programs in China.

"JUCCCE is the international go-to group for a variety of green issues. The JUCCCE network has been hugely valuable to me as I work to promote green buildings in China," said Rob Watson, chairman of EcoTech International and JUCCCE US Green Buildings Champion.

Today the JUCCCE team also unveiled its "China Energy Blueprint" with partners Augmentum and McKinsey. The web-enabled blueprint is a framework for turning analysis into action, mapping out transformation in energy use with global, multi-sector cooperation. Chairwoman Liu called on JUCCCE's extensive network of advisors to contribute, noting that "we must rethink energy."

She was recently named a "Hero of the Environment" by Time Magazine.

Anyone with Web access can contribute their industry insight and resources. Any not-for-profit or profitable energy related project can be listed

and ask for help. More information can be found on www.juccce.com.

"JUCCCE is the only organization in China that has effectively galvanized public and private sector leaders, thinkers and implementers. JUCCCE's blueprint for action is ambitious yet pragmatic," said David Nieh, general manager of Shui On Land and JUCCCE board member.

"In a short time since its inception, JUCCCE is already exerting a significant impact in addressing real and immediate sustainable development needs, from policy advocacy to project development."

In 2009, JUCCCE will focus on the development of their "five key market-transforming programs".

"JUCCCE is impressive. Its talented team focuses on projects that matter, helping tackle China's clean energy challenges at the ground level," said David Sandalow, senior fellow of foreign policy at the Brookings Institution and member of US President-Elect Barack Obama's transition team.

The JUCCCE "Green Lights for All" program, led by former GE general manager of APAC lighting group Onfrad Koo, aims to distribute over 10 million energy saving light bulbs to students and offer free compact fluorescent lightbulb (CFL) recycling.

The bulk of the costs will be funded by carbon credits, based on the energy savings from exchanging incandescent bulbs with CFLs. 10,000 GE donated bulbs have already been distributed by Citi volunteers.

PriceWaterhouseCoopers helped launch the JUCCCE "Voluntary Offset Certificate" program at their CEO Dialog on Sustainability, where they purchased 50 light bulbs for each speaker in lieu of standard speaker gifts.

On the second day of the JUCCCE Forum, Director Wang Zhongping of the Mayoral Training Center in Beijing, will sign a commitment to work together to provide mayors with turnkey solutions for city-level energy efficiency programs.

The center is jointly run by two ministries as a "boot camp" for mayors. Working together with vendors who can help service cities, and international experts, the new JUCCCE course

in development will educate and enable China's mayors to make smart energy decisions that will affect over 1 billion people and 683 cities.

"JUCCCE is the most innovative sustainable energy NGO in China, bringing together business leaders who are passionate about identifying practical and scalable solutions that will make a difference in China," said Frank Rexach, vice-president and general manager of Haworth Asia Pacific, Middle East & Latin America and JUCCCE corporate sponsor.

The author River Lu is project director of JUCCCE.

CNOOC spending 200b yuan to tap deposits

November 25 (Agencies) -- CNOOC Ltd and its partners may spend about 200 billion yuan to develop fuel deposits in the South China Sea in the nation's biggest push to tap reserves off the coast.

The investments between next year and 2020 include an estimated 15 billion yuan by parent China National Offshore Oil Corp to build deepwater drilling equipment, Luo Donghong, chief development engineer at CNOOC's Shenzhen unit, told reporters and analysts on Nov 22.

He didn't name the companies that will partner China's biggest offshore oil producer.

The company will drill twice the depth of its existing wells off the coast of China as its global rivals cut spending after oil prices fell 66 percent from its July record.

"Huge potential lies untapped for the company in the South China Sea, which is largely unexplored," Wang Aochao, a Shanghai-based analyst with UOB-Kay Hian Ltd, said by telephone yesterday.

The South China Sea, covering 3.5 million square kilometers, stretches from Singapore to the Straits of Taiwan and is a third of the size of China.

In July, the Chinese government opposed a plan by Exxon Mobil Corp, the world's biggest oil

company, to explore for fuel in the area with Vietnam, saying the project marks a breach of its historical claim to the region.

CNOOC climbed 2 percent to close at HK\$5.16 in Hong Kong trading, while the benchmark Hang Seng Index dropped 1.6 percent.

China, the world's second-biggest oil user, is expediting projects including nuclear power plants, gas pipelines and oil refineries to help stimulate the domestic economy and meet future energy demand. The country will overtake the US as the world's biggest oil and gas consumer in about five years, Royal Dutch Shell Plc said in September.

"The company will maintain its exploration budget for the South China Sea next year," Li Fanrong, general manager of the unit of the Beijing-based company, said in the southern city of Shenzhen. "The investment is only a rough estimate that reflects the immense potential of oil and gas reserves in the area."

Geological fuel reserves in the deepwater fields of the South China Sea may reach 22 billion barrels of oil equivalent by 2020 and overall annual output may rise to 350 million barrels, Luo said.

Huge coalfield discovered in Xinjiang

November 25 (China Daily) - A huge coalfield with 23 billion tons in reserve has been discovered in Xinjiang Uygur autonomous region, said its Department of Land and Resources.

The reserve is equal to ten times China's current annual coal demand, which is expected to reach 3 billion tons in three to five years.

The coalfield, about 800 m underground, covers an area of more than 300 sq km in Shanshan county in the Turpan Basin.

Yao Guoping, an official from the Coal Industry Administrative Bureau of Turpan, said it is too early to estimate the impact of the coalfield on the region's total coal production capacity and energy reserves, because the exploration of the coalfield depends on the country's pace of economic development and its overall energy demands.

Jiang Bing, an official from the National Energy Administration, said the 23 billion ton reserve is just part of the total reserve of the coalfield. He predicted the total reserve would be 100 billion to 200 billion tons.

Xinjiang, with estimated coal reserves of 1.82 trillion to 2.19 trillion tons, accounts for 40.5 percent of China's total coal reserves. With an annual production of 50 million tons, it is the country's second largest coal producer after Shanxi province.

Zhang Handong, an official with a local department which is in charge of coal exploration, said with lots of unexplored coalfields, coal exploration in Xinjiang is just in a primary stage because the cost of long-distance transport remains high.

The new coalfield, rich in low-sulfur steam coal, is close to the Lanzhou-Xinjiang railway, the only rail line connecting Xinjiang to the inland cities. It is also 800 km nearer to China's inland than the region's largest Zhundong coal production base, which could cut the transportation cost by 40 yuan per ton.

Xinjiang is planning to have an annual coal production capacity of 1 billion tons by 2020, accounting for over 20 percent of China's annual coal production.

Energy: Qinhuangdao coal prices slide by 18% in a week

November 28 (China Daily) -- Coal prices at Qinhuangdao port, China's largest coal port, witnessed the sharpest fall in the year in the past week, with steam coal over 5,500 kilocalories dropping to 570 yuan per ton on Thursday, or 18 percent lower than that of seven days ago according to statistics provided by Qinghuangdao Port Group.

The dramatic coal price slide in China is largely due to the global economic downturn and dwindling domestic demand.

"We are still not sure how serious the coal demand contraction will be next year, but it will be our top concern," an unnamed source with

China National Coal Association said to China Business News.

"Coal miners in China have agreed unanimously that they will prohibit selling below cost and will only make delivery upon purchase contract and full payment," the source said.

Automobile and Transportation

Electric cars offer opportunity to cut oil imports

November 20 (China Daily) -- China should encourage the development of electric cars to offset its dependence on imported oil and reduce greenhouse emissions, automakers said.

"We are discussing with the Chinese government about our electric car plan as environmental issues are becoming a critical issue in China," Yasuaki Hashimoto, president of Nissan Motor (China) Ltd said at the Guangzhou auto show.

The company exhibited its Mixim concept electric car at the show which opened yesterday.

"China should be one of the most potential markets for electric cars," said Toshiaki Otani, general manager of Dongfeng Nissan Passenger Vehicle Co.

He told China Daily that Nissan, Japan's third-largest automaker, plans to make electric cars by 2010 and will bring them to China by 2012.

"It will be an ideal solution as the country seeks to boost sales of fuel-efficient vehicles to protect the environment and cut oil usage."

However, Otani admitted that performance, size and the cost of the batteries remained problems in terms of promoting electric cars.

"We still have to make efforts to lower the costs of batteries in order to offer electric cars at an acceptable price to Chinese consumers."

Expensive hybrid vehicles have failed to catch on in China, with Toyota Motor Corp's Prius, the bestselling model in China, notching up just 616

sales nationwide in the first nine months of the year.

German automaker Volkswagen also said it considers electric cars as its next step in its green technology research.

"We are looking for Chinese partners in the research and development of electric cars," said Winfried Vahland, president and CEO of Volkswagen Group China.

"And we hope the Chinese government can help promote the development and use of electric cars in China."

Volkswagen has made environmental technology its top priority in China in recent years. Last year, it began to produce its world-leading energy conservation engines in Dalian, achieving both high power performance and low fuel consumption.

Volkswagen has also cooperated with Shanghai's Tongji University on the development of fuel cell technologies.

China relies on imports for nearly half of its oil. "If China continues current growth rates it will almost double oil imports by 2030," said a recent McKinsey report. "But greater use of electric cars would cut this growth by around a quarter."

Fuel tax 'to be levied soon as timing is right'

November 19 (China Daily) --- The government is likely to levy fuel tax soon while rolling back road tolls and maintenance taxes, a senior researcher close to energy policy makers said yesterday

"The government has repeatedly said that it is looking for an appropriate time to start levying fuel tax, and now, with the global oil prices going down so much over the past few months, I think this is a great time to impose the tax," Han Wenke, director-general of the Energy Research Institute of the National Development and Reform Commission, told China Daily.

The timing of the introduction of such a tax has long been a hot topic. Many believe the present low crude oil prices present a perfect opportunity

for the government to levy the tax as a key step toward letting the market eventually set prices, as consumers will be more amenable when oil prices are low.

Crude oil dropped below \$55 a barrel on Monday, down nearly 63 percent from a record high of \$147.27 on July 11.

China, the world's No 2 energy consumer, first proposed a tax on retail fuel sales more than 10 years ago as part of an effort to reform the system of road tolls and maintenance charges.

Han said he believes the fuel tax will contribute to a reasonable pricing mechanism. "It's fair that the more you use a car, the more you have to pay for fuel."

The current pricing system does not fully reflect price fluctuations on the world market. When global oil prices were at their peak, the government had to dole out huge subsidies to oil refiners to keep prices at a fixed level.

Jiang Kejun, a researcher at the Energy Research Institute who is a member of the team formulating the fuel tax scheme, told China Daily that January, or even earlier, would be a good time to start the tax.

"I think the tax will be a little more than 1 yuan per liter, and the government might cut the retail price to allow the domestic fuel price to move closer to the market level," Jiang said.

Beijing motorists pay about 30 percent more at the pump for gasoline than their US counterparts.

Some experts are concerned that the auto industry will suffer if the fuel tax is imposed, but Jiang said he believes it will send a strong message encouraging manufacturers to produce fuel-efficient cars.

"The tax will encourage people to buy energy-efficient cars, and manufacturers will not suffer losses if they respond to that trend," Jiang said.

Zheng Jun, a Beijing-based auto industry analyst with China Securities Co Ltd, also believes the fuel tax will not have a big negative impact either on the industry or the national economy.

Zheng said the government, while likely charging 30 percent as fuel tax, will lower retail

gasoline prices by 20 percent and abolish road tolls.

"I firmly believe the government will lower the retail oil price before charging the tax."

How financial crisis could slow green wheels

November 19 (China Daily) -- Call it an economic and environmental murder mystery in the making: Will a cash-strapped Detroit kill the electric car - again?

Stung by an association with gas-guzzling SUVs and pushed to the brink of failure by plunging sales, US automakers have been touting efforts to roll out more fuel-efficient small cars, gas-saving technology and gas-free electric vehicles.

The star of that marketing show has been the Chevy Volt, a rechargeable car that General Motors Corp is designing to run 64 km on battery power, meaning some commuters would never need to fill gas.

But with its cash dwindling and US auto sales crashing to 25-year lows, GM has joined Ford Motor Co and Chrysler LLC in seeking \$25 billion in federal handouts, which are under consideration this week by the US Congress.

Critics worried that a meltdown for Detroit could delay the rollout of green cars like the Volt. Others see a chance to prod GM and rivals to move faster as a condition of providing funding the industry says it needs to survive.

Because plug-ins like the Volt can be recharged from a cleaner-burning electric grid, proponents see them as the best way in the near term to reduce oil consumption and greenhouse gas emissions from traffic on America's roads.

GM has said it is protecting its investment in the Volt ahead of the vehicle's planned 2010 launch even as it scrambles to slash \$15 billion in costs elsewhere.

"I think right now we're in what I call a serious Act II moment with oil prices down and money tight," said Chris Paine, whose 2006 documentary, *Who Killed the Electric Car?*, chronicled GM's controversial decision to scrap

an earlier electric car marketed in California as Saturn EV1.

Paine, who has been working on a Volt-centered sequel, said US automakers would have been better able to weather the current crisis if they had listened to critics who blasted them for turning away from electric cars earlier this decade.

"This may turn out to be the biggest blunder ever for these companies," he said.

GM Chief Executive Rick Wagoner showcased the automaker's commitment to return to making a mass-market electric car at the Los Angeles auto show two years ago.

That reversal by GM combined with an open approach to the Volt's development won over many of the automaker's harshest critics. GM has built on that goodwill by featuring the Volt in full-page newspaper and TV advertisements two years before the vehicle goes on sale in limited numbers.

"I think it's somewhat ironic but also encouraging that GM was the first back into the fray," said Chelsea Sexton, who helped market the EV1 in California and has become an advocate for plug-in cars. "There's a humility there that people respond to. Detroit has been knocked down but it's not out."

But with Wagoner due in Washington this week to testify on the proposed bailout for US automakers, GM dropped plans to make an announcement on the Volt's battery supplier at the Los Angeles auto show this week, people briefed on the automaker's plans have said.

Jacob Grose, an analyst with Lux Research who follows the alternative power and energy storage industry, said projects like the Volt could risk delays in the current economic climate.

"GM has pretty much bet the farm on the Chevy Volt and plug-in hybrids and certainly any major economic disruption to the company - any kind of bankruptcy filing or anything like that - for even the most high priority launch, as this is would clearly be, would push it back a couple of years," he said.

Nissan-Renault chief Carlos Ghosn is expected to use his keynote speech at the LA auto show

to highlight Nissan's push toward more environmentally friendly cars, including plug-ins.

Hyundai Motor Co will be showing off a prototype of its first hybrid for the US market, using lithium-ion batteries from the same LG Chem factory, sources have said, which has been selected to supply the Volt.

Ron Cogan, editor of Green Car Journal, said Detroit automakers realize they have no option but to press ahead with investment that promises to drive gains in fuel economy.

"The industry understands where the market is headed and that the greatest interest is in the vehicles with the best fuel efficiency," said Cogan, who presented the Green Car of the year award to GM's hybrid Chevy Tahoe last year.

Others are less certain Detroit can stay the course without a bailout tied directly to saving initiatives like the Volt.

Lyle Dennis, a New York neurologist who has emerged as the Volt's unofficial first fan and runs the GM-Volt.com website, <http://gm-volt.com/>, has organized a letter-writing campaign to urge lawmakers to help save GM - and by extension the Volt.

"It just seems to me this could easily be the end of the Volt. There are certainly no guarantees," said Dennis. "I'm no fan of bailouts in general. But I don't see another way."

Environmental groups like the Sierra Club are urging Congress to tie any aid to the automakers to requirements that they make cleaner vehicles and drop a legal challenge to California's new vehicle emissions standards.

"I think the temptation may be for the auto industry to say we can't accept any new requirements," said Eli Hopson of the Union of Concerned Scientists. "While that may get them through the next few months, I don't think it will get them through the next couple of years."

Paine said he remains uncertain of how his film will end, or even what it will be titled. He has tentatively called his follow-up *Revenge of the Electric Car* but realizes there may be a darker ending by 2010, when the film and the Volt are due.

"That's when we will find out if it's really the revenge or the curse of the electric car," he said.

Agencies

Fuel tax unlikely to hike inflation

November 28 (China Daily) -- China's impending fuel tax reforms would not lead to a substantial hike in the country's inflation level as consumer prices are softening and the global and domestic economies are slowing, analysts said.

The National Development and Reform Commission is expected to publish the long-anticipated fuel tax plan after suitable revisions soon, Zhang Ping, head of the commission, said yesterday. "Our reforms will convert various tolls and fees for water and road transport into fuel consumption tax," he said, without giving any further details on the changes in the fuel pricing mechanism.

He said the reforms would contribute to energy saving and also reduce oil users' costs.

"At the present international oil price level, the fuel tax will certainly reduce users' costs compared with the current charges for road maintenance and management, as international prices are lower than domestic prices," he said.

Zhang, however, did not mention the potential impact of the fuel tax reforms on China's inflation, an issue that has been overshadowed by the global meltdown now.

Gasoline costs account for only 3 percent of China's consumer inflation basket, said Zhu Baoliang, senior economist of the State Information Center. Therefore, the fuel tax would not lead to an obvious change in inflation.

"Although we do not know the exact rate of the upcoming fuel tax, it would not significantly push up the inflation as it is expected to continue its recent downward movement into the next year also," said He Jun, senior analyst of Beijing-based Anbound Group.

Economists said that China is unlikely to maintain the annual growth of 12 percent it achieved last year.

But prices will continue to fall, they said. According to the World Bank, China's consumer price index (CPI), the major gauge of inflation, may fall to 2 percent next year from more than 6 percent this year. A Renmin University of China report expects the CPI next year to be around 2.3 percent, while others forecast it would be around 3 percent.

As Zhang pledged, the new fuel tax would not be designed in a way that would increase costs for oil users substantially, analysts said.

"The authorities would take into consideration various interests and therefore would not set the tax rate too high initially," said He.

Indications are that the tax rate could be around 30 percent or 50 percent. There are also suggestions that domestic oil prices need to be cut before imposing the fuel tax as fuel prices in some developed countries are lower than domestic prices.

Airport projects get \$65b for 2 years

November 13 (China Daily) -- A total of 450 billion yuan (\$65.88 billion) will be spent on at least 60 airport projects, which will start in the next two years, the Civil Aviation Administration of China (CAAC) said yesterday.

At least 40 of the projects will start next year and incur an expenditure of 200 billion yuan, a CAAC press release said.

Existing airports in Shanghai Pudong, Guangzhou, Chengdu and Nanjing will be expanded, and new ones will be built in many inland cities, including Yan'an in Shaanxi province and Daocheng in Sichuan province.

The central government has granted an additional 3 billion yuan for airport projects in the fourth quarter of this year to spur domestic demand and boost the economy, a CAAC spokeswoman said.

And "the CAAC has decided to use the additional money to expand existing airports and build new ones in western China".

Kunming, Chongqing and Nanning airports, too, will be expanded, and Hechi in the Guangxi

Zhuang autonomous region and Tengchong in Yunnan province will get new airports. The cumulative expenditure on these projects would be 30 billion yuan.

The expenditure on ongoing airport projects across the country, however, adds up to 100 billion yuan, the CAAC said.

China has planned to build 97 airports from 2006 to 2020, taking their total number to 244. Once these are completed, 82 percent of the country's people will be able to reach an airport in 90 minutes. Till two years ago, only 52 percent could do that.

Experts say the huge expenditure on airport projects will boost the construction, steel and cement industries in the short term.

Li Xiaojin, a professor in Civil Aviation University of China in Tianjin, cited studies to say a 1-billion-yuan investment on airport constructions could generate an additional investment of 6 billion yuan from local governments and other sources.

But for domestic airlines, which reported consecutive drops in passenger flow in July, August and September, such investments are "not enough to pull them out of their plight", said Li Lei, an analyst with CITIC China Securities Co. These airlines want aviation oil price to be lowered and passenger flow to increase.

"But in the long-run, large-scale airport constructions can help the aviation industry a lot," Li said.

Earlier this month, the CAAC said it had spent 11.7 billion yuan of the airport construction fee to subsidize airport construction projects and to operate of small airports in western China and maintain airlines' regional flights.

Zhou Laizhen, director of CAAC's financial department, said last week that small- and medium-sized airports in central and western China, which handle fewer than 5 million passengers a year, would be given priority.

"Civil aviation enterprises are capital-intensive. And because of the global financial crisis, many of them find it hard to get financing and are thus under unprecedented pressure," he said.

That's why "subsidies are expected to relieve the capital pressure on them and help them survive the crisis. It can raise the demand for air transport, too", he said.

A total of 122 small- and medium-sized airports were subsidized in 2006, with their number going up by one last year, and about 70 percent of them were in central and western China.

Reform and opening up drive XCMG growth

November 25 (China Daily) -- In the first 10 months this year, sales revenue of Xuzhou Construction Machinery Group Inc (XCMG), based in Xuzhou in Jiangsu province, totaled 35.2 billion yuan, an increase of 46.5 percent from the same period last year.

It is now on track to generate revenues of more than 40 billion yuan for the entire year, after it broke through the 30 billion yuan mark in 2007, which then firmly ranked XCMG as the No 1 manufacturer in the Chinese construction machinery industry and the 15th-largest construction machinery manufacturer in the world.

Founded in March 1989, XCMG sales were only 330 million yuan that year.

Wang Min, chairman of the group, said growth has been impressive, but he anticipates even greater things to come.

He predicted the group's sales revenue will hit 50 billion yuan in 2010, entering top 10 of global construction machinery manufacturers. And the figure is projected to reach 100 billion yuan in 2015, ranking it among the world's top five.

Success story

Wang said the success of XCMG is a reflection of China's remarkable evolution during the past three decades since its reform and opening-up began.

"We spent the first decade probing a way suitable for the company's development and took the second decade to deepen reforms, promote innovation and develop international markets," he explained.

Wang said the company has contributed much of its energy and effort to building its capacity in innovation.

Facing fierce competition from overseas rivals, Wang recalls that the group's management realized a lack of core technologies was hampering further development of China's construction machinery manufacturers.

To solve the problem, the company enhanced investment in recent years to develop key components and parts with its own intellectual property rights.

This year XCMG allocated 800 million yuan to develop gear boxes and drive systems for its construction machines.

The company is also strengthening efforts to develop all-new construction machines including a hydraulic excavator that will be cutting edge globally.

According to Wang, about 5 percent of the company's sales revenue is spent on research and development (R&D) of key technologies each year.

The group now has a comprehensive R&D system in place, including several testing facilities and the national-level XCMG Technical Center.

Globalization

Globalization is another important strategy ensuring XCMG's sound development, implemented by fostering close partnerships with overseas dealers.

The group has established close cooperation with nearly 100 overseas dealers who help sell its products in more than 100 countries and regions.

In 2007, the group's exports amounted to \$560 million, compared to \$14 million in 1999. In the first 10 months of this year, the overseas sales volume reached \$740 million yuan.

Wang said the next step in globalization is to build overseas branches, service centers, spare parts warehouses and even assembly plants in overseas regions.

This year, the company opened spare parts centers in Poland, Iran, Australia, Indonesia, Brazil and Russia. Its service centers will be set up in regions including the Middle East, Central Asia, Europe, North America, and Africa in the next two years.

With those operations online, the group's annual exports are expected to hit \$2 billion in the next three years, according to Wang.

Wang also said the group is strengthening efforts to build a strong force of professionals to build its innovation capacity and global expansion.

"We have already attracted many domestic technical talents to work for XCMG. Our next move is to recruit a number of foreign professionals to help us expand in the international market," Wang said.

A recent development is that XCMG is seeking an experienced foreigner to head its overseas affairs unit. The company has also established close contact with professionals in Canada and Australia.

Wang said working for an ambitious enterprise like XCMG is both challenging and rewarding. He emphasized the company will offer good conditions for career development of its employees.

Challenge and opportunity

Wang noted the worldwide financial crisis, which is likely to cause a recession of the real economy, poses a new challenge to XCMG's development.

"Our exports will be seriously affected considering the decreasing demand of overseas markets," he said.

But he remains optimistic about the group's performance in the next year.

"A piece of good news is that the Chinese government is taking proactive measures to stimulate domestic demand," Wang said.

The central government has recently announced a 4 trillion yuan package to mitigate impacts from the global financial crisis.

Measures include construction and modernization of railways, highways, airports, seaports, water diversion and natural gas pipelines.

"It will mean a huge demand for construction machines," Wang said.

And the global economic prospective is also not so bad for XCMG, Wang said.

"The possible global economic recession will force many businesses to tighten their budget. Buyers will then naturally focus their sights on cost-effective products. And fortunately XCMG products are in such a category," Wang said.

The chairman said XCMG is now adjusting its R&D and marketing plans to cope with the new situation.

"Market segmentation is a highlight of our globalization strategy in the coming few years," Wang said, adding that the company will quickly design products tailored to the demands of different countries and regions.

While consolidating its position in traditional overseas markets, XCMG will also enhance its presence in emerging markets, according to Wang.

The company is also promoting its brand image among overseas clients by attending trade fairs at both home and abroad.

XCMG is now exhibiting its latest products and technologies at the bauma China 2008, an international trade fair for construction machinery, building material machines, construction vehicles and equipment held in Shanghai from today to November 28.

Wang said it is a good chance to help XCMG become better known to the global industry because the fair has attracted more than 1,000 enterprises from about 30 countries and regions.

XCMG is a frequent exhibitor at the fair. This year, the exhibition area for XCMG covers 4,320 sq m, the largest among all exhibitors.

Exhibits of the group include 41 displays of new products, covering all categories of its product line and ranking it the first among exhibitors in product variety.

Transportation: Xinjiang to invest \$17.6b in railway

November 25 (China Daily) -- China will spend 120 billion yuan (\$17.6 billion) to build a second railway traversing the northwestern Xinjiang Uygur Autonomous Region, according to information from a meeting of the Xinjiang committee of the Communist Party of China on Tuesday.

Construction is expected to begin next year, with investment from the central and local governments and other sources.

The passenger line will go through Gansu, Qinghai and Xinjiang. It will facilitate the transport of agricultural products and minerals, mainly coal, out of Xinjiang, by relieving congestion on the existing line.

When the line is completed, the existing 1,892-km line from Lanzhou (Gansu's capital) to Xinjiang will be used for cargo only.

The land resources department of Xinjiang announced last week a huge coalfield with a reserve of 23 billion tons was discovered in the region.

The field, about 800 meters underground, covers more than 300 sq km in Shanshan County in the Turpan Basin.

Xinjiang has 40.5 percent of China's coal reserves. With an annual production of 50 million tonnes, it is the country's second-largest coal producer after the northern province of Shanxi.

Oil and gas

Nation increasingly reliant on oil imports

November 19 (China Daily) -- China's oil imports will account for almost 75 percent of its total oil consumption by 2030, according to the International Energy Agency (IEA).

The Paris-based adviser to 28 oil-consuming nations also predicted that primary world energy demand would grow by 1.6 percent annually between 2006 and 2030 with a total increase of 45 percent. China and India are expected to account for over half of incremental energy demand by 2030.

According to China Customs, the nation imported 159 million tons of crude oil in 2007 and produced 187 million tons, with its oil-import dependence reaching 50 percent for the first time.

China imported 135 million tons of crude oil from January to October, and it is expected to import a total of 200 million tons this year. However, its annual production would be less than 190 million tons.

Tong Xiaoguang, a member of the Chinese Academy of Engineering, warned that China may soon become highly dependent on oil imports.

Any supply disruption drives up prices in all consuming countries, regardless of where they obtain their oil, according to the World Energy Outlook 2008, the latest edition of the IEA's annual flagship publication.

With the substantial increase in imports and somewhat limited regional supply, supply security risks in Asian countries may increase toward 2030, said Nobuo Tanaka, IEA executive director, adding that this heightens the need for oil emergency preparations.

Wang Jian, general secretary of China Society of Macroeconomics under the National Development and Reform Commission (NDRC), said as a developing country, China's economy is mostly driven by some energy-intensive industries owing to its ageing energy-inefficient industrial structure.

Tanaka said that as China's economy grows, oil imports would not decline in the long term.

Analysts said China should intensify its presence in the Asian oil market to reduce risks and ensure energy safety.

Oil pricing to come under reforms purview

November 21 (China Daily) -- China's top economic planning body is working closely with a number of government organizations to study the feasibility of reforming China's retail oil pricing mechanism and the introduction of fuel taxes.

The National Development and Reform Commission yesterday said on its website that its officials held a meeting to discuss the issue with representatives of some ministries and local governments.

An unnamed source said that the meeting took place on Tuesday, the same day that a senior researcher from the commission said the government was likely to levy a fuel tax soon.

The commission said it discussed the possibility of lowering pump prices, totally scrapping road maintenance fees, while scrapping road tolls in certain places.

Although this was the first official statement on the issue, the commission did not clarify whether there was any agreement on price cuts or a fuel tax.

Falling crude costs and dwindling demand for oil products have sparked speculation that China will cut fuel prices for the first time in two years and many believe the present low crude oil prices present a perfect opportunity for the government to levy a fuel tax, as consumers will be more amenable when oil prices are low.

Zheng Jun, an analyst with China Securities, said he had long believed that the government, while it is likely to set the fuel tax at 30 percent, would lower retail gasoline prices by 20 percent and abolish road maintenance fees.

However, "I don't expect the government to scrap road tolls on highways, as that would seriously dampen investment enthusiasm."

Calls to pump up oil reserves

November 5 (China Daily) -- The country should take advantage of a record drop in global crude oil prices to build up more reserves of the resource, analysts have said.

"Compared with the highest prices in July, crude oil prices have dropped by 50 percent. We should take advantage of the low prices to build more oil reserves," said Lin Boqiang, director of the China Center for Energy Economics Research at Xiamen University.

"These oil reserves should include both the national oil reserves and oil companies' commercial reserves," Lin said.

Crude oil prices have fallen to below \$65 a barrel, following a record high of \$147 a barrel in July.

Han Xiaoping, senior vice-president of Beijing Falcon Pioneer Technology Co Ltd said the country should also establish a special fund for oil reserves construction.

China had already launched a state strategic oil reserve base program as a way to offset oil supply risks and reduce the impact of fluctuating energy prices worldwide.

The bases are designed to maintain strategic oil reserves equivalent to 30 days of imports, or about 10 million tons.

The first batch of the bases include four in coastal provinces -- those in Zhenhai and Zhoushan of Zhejiang province; Huangdao, Shandong province; and Dalian, Liaoning province.

Zhao Xiaoping, deputy director of the National Energy Administration, said earlier this month that China will complete construction of the four bases this year.

Similarly, the country last year established a center to manage its strategic oil reserves. The center is in charge of stockpiling crude and releasing reserves, as well as monitoring oil supply and demand on the domestic and international markets.

The authorities have also started planning the second phase of its strategic oil reserves. Sources said this will include a number of bases in the western regions, including Lanzhou in Gansu province.

The volume of China's national oil reserves will increase to a level equivalent to three months' imports, said the National Development and Reform Commission.

PetroChina and Sinopec have all started building on their commercial oil reserves. To that effect, Asia's top refiner, Sinopec, has set up the Sinopec Commercial Crude Reserve Center to manage its oil storage.

Oil firms see no dent in profits

November 28 (China Daily/Xinhua) -- The government's proposed fuel tax will not significantly affect domestic oil companies, but a market-based energy pricing system would relieve some of the pressure the companies face, said analysts.

"The proposed new tax on fuel will not greatly affect the business performance of China's two leading oil companies, PetroChina and Sinopec," said Liu Gu, an analyst with Guotai Jun'an Securities, adding their profit mainly comes from upstream business - oil and gas exploration.

Han Xiaoping, senior vice-president of Beijing Falcon Pioneer Technology Co Ltd agreed.

"For China National Offshore Oil Corp (CNOOC), the impact is even smaller as the company has a very small oil retailing system in the country," he said.

The State Council will seek public feedback on reforms of refined oil prices and its proposed fuel tax, it said yesterday

Liu and Han agreed that "how the government will reform oil prices will be more important for domestic oil companies".

Crude oil prices in China are determined by the international market, however refined oil prices are still controlled by the government. The gap

creates considerable headaches for the country's oil companies.

Soaring global crude oil prices in the first half of this year pushed Chinese oil companies into the red, as State-controlled refined oil prices kept them from passing the burden on to consumers.

Statistics showed that in the first three quarters the profit of China's petroleum and chemical industry was 418.7 billion yuan, an increase of 3.4 percent year-on-year, but the growth rate has seen rapid slowdown since September.

Yunnan to build new gas pipeline

November 19 (China Daily) -- Construction of an oil and gas pipeline linking Myanmar and China's Yunnan province is expected to start next year, said an official with the local government.

In line with the policy to boost domestic demand, Yunnan is to start building the pipeline in the first half of 2009, said Mi Gongsheng, director of the Yunnan Provincial Development and Reform Commission.

The project is one of a series of large energy and infrastructure projects Yunnan will embark on in 2009, Mi told Xinhua News Agency. These projects are focused on six areas: large-scale industrial projects, railway construction, cleaning up Dianchi lake, power and coal projects, construction, power grid upgrades and rural road construction.

Yunnan province plans to invest 72 billion yuan in energy projects next year, said Mi.

The long-awaited China-Myanmar pipeline is expected to provide an alternative route for China's crude imports from the Middle East and Africa and ease the country's worries of its over-dependence on energy transportation through the Strait of Malacca. Japan's Nikkei newspaper reported that the investment in the project was \$2.5 billion.

The project included a \$1.5 billion oil pipeline and \$1.04 billion gas line, said the newspaper. China National Petroleum Corp (CNPC) will hold a 50.9 percent stake and manage the project

and Myanmar Oil & Gas Enterprise will own the remainder.

CNPC yesterday declined to comment on the project.

Analysts said that in addition to Yunnan, Chongqing municipality, Guangxi Zhuang autonomous region, Sichuan province and Guizhou province in southwest China will also benefit from the pipeline.

Driven by rapid economic development, China's oil imports have grown in recent years. In 2007 China imported nearly 200 million tons of oil, up more than 10 percent from 2006.

Analysts said China should further diversify its sources of oil imports to find more sustainable supplies. At present, the Middle East, Africa and Asia-Pacific are the three main regions from which China imports oil.

China plans to extend its oil and gas pipelines by nearly 60 percent by 2010. The country completed its first West-East gas pipeline in 2004. The pipeline, one of the biggest energy projects in the country, transmits natural gas from the Xinjiang Uygur autonomous region to the eastern coast.

Construction of the second West-East natural gas pipeline, costing 142.2 billion yuan, began in February.

Domestic gas prices up 19% in Shanghai

November (China Daily) -- SHANGHAI: Despite plummeting oil prices on world markets, this city has become the first in the nation to raise its gas prices, by 19 percent effective yesterday.

The prices of natural gas and liquefied petroleum gas, both for home use, were raised from 2.1 yuan to 2.5 yuan per cubic meter, and from 1.05 yuan to 1.25 yuan per cubic meter respectively.

"The adjustment is made in line with the country's energy development strategy and for the purpose of conservation," Wu Zhenguo, vice-director of Shanghai municipal development and reform commission, told a press conference on Friday.

The new pricing system emphasizes energy saving and abolishes the old preferential rule, in which the more gas used, the cheaper the rate.

Wu said the adjustment will not affect the city's low-income families.

Shanghai increased subsidies for low-income families and the unemployed this year and will do so again next year. While residents in most districts pay their gas bills according to use, some in the suburban areas buy gas credits. The maximum amount that can be bought at any one time is 100 cu m.

A resident surnamed Shi arrived at a natural gas recharge outlet on Sixian Road, Songjiang district, before 8 am on Sunday and was surprised to find a queue stretching about 1 km, Shanghai Morning Post reported yesterday.

Shanghai Securities News reported yesterday that other cities like Zhengzhou, Henan province, and Guangzhou, Guangdong province, are also planning gas price hikes.

The Beijing Gas Group, which collects household gas fees, said it had not been informed of any imminent changes to prices.

Fuel-hedging losses hit China Eastern

November 27 (China Daily) -- SHANGHAI: China Eastern Airlines is evaluating potential losses from its fuel-hedging contracts, said the company yesterday, declining to verify reports that the cost may be as much as \$690 million by Nov 14.

"We're assessing the possible losses on fuel-hedging operations, but not able to comment until accurate figures are released," said Luo Zhuping, board secretary of the Shanghai-based carrier, who refuted previous reports that the company was asked to suspend its hedging contracts by the central government.

China Eastern "incurred fuel hedging losses totaling \$690 million as of Nov 14", the Dow Jones Newswires said on Tuesday, citing a person familiar with the situation.

The source said the Shanghai-based carrier typically hedges 36 percent of its jet fuel.

"It's no surprise the carrier suffered losses from fuel hedging in light of the sharp decline of international crude oil prices, but the figure may not be that large, " said Huang Jinxiang, an analyst at Guodu Securities.

The January crude oil futures contract closed at \$ 50.77 a barrel on the New York Mercantile Exchange on Nov 25, compared with an all-time high of \$147.27 a barrel on July 11.

Chinese airlines are only allowed to purchase fuel at international prices for overseas routes, for which they often enter fuel-hedging contracts to lock in their oil costs, noted Huang.

The amount of jet fuel China Eastern uses for international flights is about 75 percent of what its competitor Air China uses.

Air China said last Friday that it faces climbing potential fuel hedging losses of 3.1 billion yuan as of Oct 31, up from 2.1 billion yuan a month earlier because of rising oil price.

China Eastern may realize the reported losses if its contracts were not for hedging fuel costs but for speculations, said Yao Jun, an analyst at China Merchants Securities.

The carrier lost 270 million yuan on fuel hedging contracts in the third quarter. But Huang said the exact figures are hard to estimate if the company doesn't reveal contract details.

China Eastern posted a net loss of 2.33 billion yuan from July to September, compared to a net profit of 976 million yuan over the same period last year.

"The fuel hedging losses will make the company's annual report look even worse," Yao said, adding the carrier's debt-to-equity ratio has already exceeded 95 percent in recent years' operations.

A-shares of China Eastern remained flat to close at 3.93 yuan yesterday.

Climate Change and Air Pollution

China must be cautious in raising consumption

November 21 (China Daily) - Perhaps few would have imagined that no sooner had the eyes of the world moved from being firmly fixed on China during the August/September Olympics and Paralympics, those eyes would be right back in November - this time focused on Chinese leaders and the Chinese consumer as the world looks to China to keep high growth rates going and mitigate the effects of a global economic recession.

Chinese President Hu Jintao has said that China recognizes the importance of a strong Chinese economy for the global economy and the leadership recognizes its responsibilities to the world economy. After all, China now represents 6 percent of that output. Chinese Premier Wen Jiabao has also said that encouraging the Chinese consumers to spend is no easy task.

Indeed one of the remarkable things about China's 30 years of economic progress and many years of double digit growth is that it has been achieved without the stimulus usually found in Western economies of a high marginal propensity to consume (MPC) out of extra income, which multiplies further the initial demand increases from extra economic activity.

As we know, China's growth has been export and investment led, and despite rising national income, the Chinese consumer has typically had a savings ratio around 50 percent of income. Now that both exports and real capital investment (in so far as lack of export potential and of financial capital will surely lead to reductions in private investment) are in decline in China, the question the world is asking is: Can Chinese government supported investment and private consumption with a rising MPC fill the gap?

Certainly the authorities have planned infrastructure projects (a wide range from high speed trains and energy conservation to rebuilding in Sichuan province) and have said that they will, but it is difficult to see how the export declines will not hit consumption as jobs are lost through structural problems.

A few years ago my students were fascinated by statistics such as the Chinese economy producing over 500 million cellphones a year of which only 50 million stayed in China. Now if the global downturn produces a 20 percent decline in export demand for cellphones, and Chinese demand for cellphones could be encouraged to rise 100 percent (a remarkable jump) that would still leave around 50 million units annual shortfall in demand and rising unemployment in that industry.

Picking up the slack will be even harder in industries where production was uniquely to meet the needs of export demand such as for Mattel and Disney in the toy industry. Then we have the impact on support industries already in evidence - the shipping fleets that carried this export-determined production across the oceans aren't going to be needed in such numbers to "ship" production across China, even if the output can find domestic buyers.

So it seems inescapable that consumer expenditure growth will initially be handicapped by domestic job losses and reduced incomes in those industries.

There is another drag on the potential for rising consumer spending. An important segment of Chinese wage earners that might be most likely respond to encouragement to spend more on domestic output is also the segment that would like to own their own home - indeed doing so usually creates some further spending needs.

However it is widely reported that property prices have risen too far outside the reach of such would-be buyers in China and that this remains so despite a recent downturn in prices.

In recognition of this, the authorities have introduced policies to reduce the property deposit from 30 percent to 20 percent and to consider subsidies to costs and lending rates at 70 percent of normal interest costs for a period. Of course this encourages consumers to stretch themselves to try to afford high property prices, limiting income for other spending. It essentially "validates" the high property prices whereas the "next housing generation" consumer would be better off with property at more affordable prices.

There is an important lesson to be learned from the West here. It has been precisely the encouragement of Western consumers to stretch themselves to take on ever-larger

mortgage commitments and higher housing costs relative to income, which necessitated the low (sometimes non-existent) savings ratios out of income and the reliance on credit for significant consumer spending decisions.

Affordable housing, avoiding a excessive proportion of income committed to housing costs is the only sensible way to sustain rising general consumer spending without a credit explosion to finance it.

Add the drag from the reality that property owners in the last year or so have seen their assets fall in value and that the Chinese stock markets have fallen even further from their 2007 peaks (now a fall of over 80 percent) than Western stock markets, and there is an important section of Chinese consumers whose confidence to respond to the world's need for higher spending has been severely dented.

There is a certain irony in looking to historically cautious Chinese consumers to increase spending at precisely the time that the horrific results of Western consumers not saving for a rainy day are all too clear.

The Western consumers, particularly in the United States, believed they could live with spending nearly all their disposable income because of ready access to credit for emergencies - a belief honed from their early college days when banks competed on campuses to place credit cards in pockets of students yet to earn any significant income, through to the assumption in last 20 years that property prices (give or take a blip) will rise annually and always provide equity against which affordable loans could be secured. The home was an ATM.

Given the culture of the Chinese consumer, is a significant reduction in savings out of income something they will feel comfortable with unless access to credit is part of the process as a "safety net"? And will this sow the seeds of a financially unhealthy credit-based society in China a generation later?

China should not ignore the lessons from the West's financial crisis. The authorities are clearly seeking to learn from the experiences of the Western financial institutions and avoid those mistakes, but the greater lessons are likely to come from the impact of the Western consumer's personal credit crisis and this is an

experience that will be more fully revealed in 2009. So the Chinese government's attempts to raise consumption in China should proceed, but "proceed with caution".

The author is an economist and director of China Programs at the American Institute for Foreign Study

New green measures 'reaping rewards'

November 19 (China Daily) -- Tougher environmental controls introduced in the first half of the year have helped reduce pollution, Minister of Environmental Protection Zhou Shengxian said yesterday.

The chemical oxygen demand, a measure of water pollution, was 6.74 million tons in the January-June period, down almost 2.5 percent year on year, he said.

Similarly, the amount of sulfur dioxide in the air, mainly from coal use, was down almost 4 percent to 12.13 million tons, Zhou said.

"These reductions were achieved by the application of the pollution control measures, as well as the closure of some outdated plants that consumed too much energy," he said.

New sewage treatment facilities, built this year, have helped reduce water pollution in some areas, he said.

Also, several small power plants were closed because they failed to meet requirements for clean production, he said.

The government's decision to cut production of high energy-consuming materials such as steel, electrolytic aluminum and cement has also helped bring down emissions, Zhou said.

The ministry also tightened environmental evaluation standards this year on proposed projects in power, steel and petrochemical industries, he said.

Between January and August, 104 projects, involving 314 billion yuan (\$46 billion) of

investment, were either rejected or postponed due to potential environmental problems, he said.

In the same period, 335 projects passed environmental evaluations.

The approved projects will help reduce emissions of sulfur dioxide by 290,000 tons a year, Zhou said.

Investment plan will cover green issues

November 13 (China Daily) -- Improving the environment is a key element of the government's financial stimulus plan, vice-premier Li Keqiang said yesterday in Beijing.

"Environmental protection and energy-saving industries should become the new highlights of economic growth in this round of investment to boost domestic demand," Li said at the opening of the annual meeting of the China Council for International Cooperation on Environment and Development.

Zhou Shengxian, minister of environmental protection, said that over the next three years, 1 trillion yuan (\$146 billion) will be used to tackle environmental problems.

One of the key targets will be the elimination of the imbalance between urban and rural environmental efforts, Zhou said.

"The provision of safe drinking water and the treatment of pollution in the countryside must be given the same attention as in urban areas," he said.

At its first national meeting on rural environmental protection in July, the State Council set a target to increase the amount of sewage and consumer waste treated in rural areas by 10 percent by 2010.

Funds will also go toward solving regional environmental problems, such as the worsening haze situation in the Pearl River Delta, he said.

Last year, more than 100 "hazy days" were recorded in the Pearl River Delta cities of

Dongguan, Foshan, Shenzhen, Guangzhou and Zhaoqing, he said.

China's fledgling green industries, such as those involved in the development of renewable energies and pollution treatment, will also benefit from the investment plan, Zhou said.

Clean technologies alluring to venture capital

November 10 (China Daily) -- Since 2000, venture capitalists (VCs) have invested \$10 billion into clean tech companies, with the investment approaching \$4 billion in 2008 alone. Where is this money going? Seventy percent of the investment to date is in the United States (US), less than 10 percent of that in China.

Clean tech will become the largest investment area for US VCs within 5 years. Sustainable power generation such as solar, wind and biofuels have captured the majority of venture capital dollars.

Where're the benefits?

The key question is will investors see the benefits of both products coming to market and financial return?

Clean tech encompasses a wide range from environmental clean up - water, industrial waste, recycling - power generation and management- clean coal, biofuels, solar power, wind power, geothermal, wave power, smart grid management- and energy storage- batteries and fuel cells.

Clean tech has become shorthand for anything that in some way improves energy efficiency and the environment.

Recent enthusiasm by the investment community for clean tech companies has not gone unrewarded. In solar energy, investors have seen significant gains from companies such as First Solar, Suntech, Sunpower, Trina Solar and LDK, among others.

Ten Chinese solar companies are publicly listed, with aggregate market capitalization of over \$7

billion. The Chinese companies fabricate and assemble solar panels for export, primarily to Germany, Spain and the US.

The early returns in the solar industry spawned a surge of capital throughout the solar energy value chain, with over 40 percent of the VC clean tech money and over 80 percent of the clean tech investment in China going into this sector.

Wind power also has attracted a great deal of venture capital. Investments are primarily in wind generation equipment.

There are two Chinese public wind power companies - Goldwind, Chinese High Speed Transmission - but investors have yet to realize the returns on capital invested that the solar industry has generated.

The other major area of venture capital investment in power generation is biofuels, particularly biodiesel and ethanol. Biofuels use renewable feedstocks such as grains and grasses to create alternative transportation fuels. In biofuels the story for investors is one of tears.

The US has pursued poorly considered policies around corn-based ethanol driven by politics and farm subsidies rather than sound economic reasoning.

The production capacity of the US in corn-based ethanol has increased 4 times in less than 8 years, at the same time corn feedstock prices doubled and many of the new technologies have proven difficult to commercialize and scale.

The debt finance market collapse and the halving of oil prices sound the death knell for the first wave of biofuel companies. In the US alone, several billion US dollars of venture capital are at risk.

Where to go?

Solar energy will succeed as long as government subsidies encourage installation of current technologies and provide the incentive for future investment.

Wind offers the highest near term prospects for return on investment because it requires the least subsidy to be profitable for investors and providers.

Biofuels must be completely rethought with more emphasis on non-food feedstocks and will not be capital efficient for several years.

Venture capitalists will continue to invest in clean tech, moving more of their focus to energy storage, improving existing generation facility efficiency and improved conservation.

A focus on energy efficiency dominates discussion among investors today. Not only do energy efficiency investments provide the best short term environmental and climate change benefits, they will provide the best financial returns.

There is no "silver bullet" for climate change and energy efficiency. The energy industry is being reconstructed from the ground up with new ways of generating, distributing, managing, storing, and using power. This will take decades and trillions of dollars.

However, today's technologies in lighting, building materials, coal power plant efficiency and emission reductions, and smart grid management, are beginning the process of modernizing the energy industry.

The success in the US reducing sulfur dioxide emissions with market mechanisms in the 1970s has inspired many of the carbon tax and carbon trading schemes underway today.

Success in restoring salmon runs to rivers like Oregon's Willamette provide proof that government attention and policy can undo years of environmental neglect.

Where's China?

China's challenge is twofold. One is to ameliorate years of damage that rapid economic growth has left behind. Second is to provide the right intellectual property protection and financial incentives for both foreign and domestic technologies.

China will be one of the world's centers of clean tech innovation, but this is dependent on sound government policies. Recent changes in the IP laws, shutting down environmentally non-compliant factories, and large-scale wind power deployments show that the Chinese government recognizes both the need and opportunity.

As an example, over 15 percent of China's electric power capacity goes toward producing cement. Over 80 percent of this electricity is generated by coal-fired power plants. Making these industries more efficient and "cleaner" will bring large and immediate returns.

The reconstruction of the global energy infrastructure will require local, national, and global action. Sino-American cooperation in this area is not only vital, but represents the greatest investment opportunity of the 21st century. There is no time to waste.

The author is founder and managing director of Qiming Ventures.

Country committed to climate promises

November 27 (China Daily) -- The country will not commit itself to a binding target in the reduction of greenhouse gases at the upcoming UN climate change summit in Poland but will continue its "unshakable commitments" to sustainable development, experts close to the negotiations said yesterday.

China has already made tremendous achievements in combating climate change, and will continuously act as a responsible country in negotiations, Lu Xuedu, a senior official from the Ministry of Science and Technology, said.

"As it is still a developing country, China will not make promises on binding targets for reducing greenhouse gas emissions," Lu told China Daily yesterday.

About 190 nations will meet in Poland next week to discuss global strategies on climate change after 2012 when the Kyoto Protocol expires.

The Chinese delegation will consist of about 40 senior officials from different ministries, Lin Erda, a member of China's national climate change expert panel, said.

But Lu and Lin both agreed that the conference in Poznan is not likely to generate substantial results as a final agreement is expected to be worked out next year.

"The Poznan meeting will serve as a half-way mark in the negotiating process leading up to the Copenhagen meeting in 2009," Lu said. "So, I don't think there will be any concrete agreements this time."

They also said the Bush administration will present the US stance on climate change at the Poznan meeting and that will lower expectations.

Lin said China will stick to its "previously repeated stances" and "five principles" at the 12-day UN meeting.

Xie Zhenhua, vice-director of the National Development and Reform Commission, in charge of climate policy, reiterated China's five principles at the first Sino-Australian ministerial dialogue on climate change held in Canberra recently.

The United Nations Framework Convention on Climate Change and its Kyoto Protocol should be adopted as "major channels" in any future agreement on climate change, Xie said.

He also emphasized that there should be equal treatment in mitigation and adaptation, and the problem of financing and technology, which developing country parties are most concerned about.

Special fund proposed for green effort

November 7(China Daily) - A senior Chinese official called on the international community to set up a special fund under the United Nations framework to ensure that developed countries help their developing counterparts cope with climate change.

Zhang Ping, minister of the National Development and Reform Commission (NDRC), said no substantial progress had been made by developed countries in the transfer of climate-friendly technologies to the developing countries on favorable conditions despite repeated promises to do so in international agreements.

"The transfer of technology to developing countries on favorable conditions is the obligation of developed countries," Zhang told

China Daily in an exclusive interview prior to today's international forum on climate change-related technology transfer.

Zhang said that, under the Convention on Climate Change and the Kyoto Protocol, "developed countries should establish a fund to stimulate the development and transfer of climate-friendly technology".

The Chinese government has paid great attention to setting up a platform to facilitate technological transfers as part of global efforts to fight climate change.

Premier Wen Jiabao is scheduled to deliver a speech at the two-day forum jointly organized by the UN and the Chinese government.

Representatives of 76 countries, as well as a number of international organizations, are taking part in the event.

In addition, Zhang proposed the setting up of a specialized organization and an evaluation mechanism under the Conference of the Parties (COP) to United Nations Framework Convention on Climate Change (UNFCCC) to provide policy support and supervision so developed countries can fulfill their commitments.

"We must depend on joint efforts and global cooperation to address climate change, and governments in all countries should play a bigger role in tackling obstacles to this international cooperation," said Zhang.

He said certain incentives have to be given to mobilize the private sector and the entire market, so developing countries can gain access to environmentally friendly technology at an affordable price.

Last year, the Chinese government invested a total of 48 billion yuan in energy conservation, renewable energy projects and forestation, according to an NDRC report.

China's energy consumption has been reduced by 147 million tons of standard coal equivalent from 2006 to 2007 and CO2 emissions have been reduced by 335 million tons during the two years.

However, Zhang said that China, as the world's second-largest energy consumer and the world's biggest developing country, could not put an

immediate end to its dependence on coal and gas to power its growth.

"For a long period of time, that is the reality we must face," Zhang said. "But we want to use them and develop our economy in a cleaner way."

China aims to reduce energy consumption per unit of GDP by 20 percent by 2010 and will strive to make further reductions in the future, he said.

Zhang also said even as the world tackles the financial crisis, China and the rest of the world should continue to adhere to the sustainable development model and fight climate change.

"We should fight the financial crisis and climate change at the same time," Zhang said.

Take the green way out

November 7 (China Daily) -- In the face of the worst financial crisis in many decades, global leaders have been struggling for a coordinated solution. The monetary easing they recently delivered together may be necessary but it can save global financial systems from freezing only for the moment.

To pull the global economy out of the looming downturn and put it on a more sustainable foundation, policymakers around the world need to look for answers beyond the traditional impetus for economic growth.

The High-level Conference on Climate Change that opens today in Beijing provides a good chance for global policymakers to understand the development potential of energy and other climate-related technologies.

The international community should seize the initiative to accelerate technology cooperation, especially in enhancing developing countries' adaptation to climate change.

International cooperation in technology and technology transfer has been identified as a key element for mitigating greenhouse gas

emissions and adapting to the adverse impacts of climate change.

Generally speaking, developing countries are more vulnerable to climate change than their developed counterparts.

Given the former's weak capacity for independent technological innovation and industrial countries' historical greenhouse gas emissions, the latter is obliged to provide financial support and transfer technology to developing countries on favorable terms.

Under the Kyoto Protocol and the United Nations Framework Convention on Climate Change, developed countries should spend at least 0.7 percent of their gross domestic product (GDP) helping developing nations address climate change. But till now their spending is far below that level.

Such reluctance to facilitate transfers of environmentally sound technologies from developed countries has already hampered the fight against global warming. Worse, it has hindered the growth of a green economy in both developed and developing countries, the huge potential of which can play a key role in stoking global growth in coming decades.

Admittedly, the financial difficulties most developed countries currently face have made it harder for them to fulfill their obligation in helping developing countries to combat climate change.

But it will be short-sighted for policymakers in developed countries to retreat from international cooperation to address global warming. By taking aggressive steps to promote transfer of environmentally sound technologies, they will not only give a huge boost to sustainable growth of the developing countries but also create a powerful green growth engine for their own economies.