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General Energy Issues

Sino-US talks turning to action

March 9 (China Daily) -- China and the US have called for strong cooperative efforts on energy efficiency since the two countries inked the milestone US-China Ten Year Energy and Environment Cooperation Framework in Washington last June. But energy and environment officials from both sides talked more about "should-dos" instead of "to-dos" in the discussions following the deal.

The countries finally made some detailed commitments at a forum on "Developing Effective Mechanisms for Energy Efficiency Implementation in China" on Feb 26 in Beijing, focusing mostly on commercializing energy efficient technologies.

Such technologies offer a lot of room for the US and China to cooperate, said Jon Wellinghoff, acting chairman of US Federal Energy Regulatory Commission, at the forum.

His Chinese counterpart, Liu Qi, the deputy director of National Energy Administration, said the two countries can also find common ground in the alternative energy sector.

China and the US are the world's two largest emitters of greenhouse gases and together consume one third of its energy.

Steven Chu, US Secretary of Energy, sent a message to the forum, urging the US to work closely with China, India, and other nations to fundamentally transform the way they use and produce energy. He stressed working together on energy efficiency, developing renewable energy resources and carbon capture and storage.

Efficiency programs in the US could reduce energy demand there by 20 percent over the next 20 years, according to a US report. If China replaces 20 percent of the new coal-fired capacity it adds each year with Efficiency Power Plants (EPPs) it can meet demand growth at one-third the cost and at the same time save 51 million tons of coal each year and reduce annual CO_2 and SO_2 emissions by 140 million and 1.1 million tons respectively.

"China has ability beyond the US to scale up manufacturing in an environmentally-sound way as long as the US helps China develop the requisite technology," said Wellinghoff, "We can become trade partners in that regard and move energy efficient technology from the US to China," he added.

China has a number of renewable energy regulations he said the US might adopt if they prove successful in China, he said.

"We are looking at energy pricing structure in US as well as our electric market, and China has some interesting policies that deal with the issue," he said.

Officials from both countries pledged to take concrete measures instead of just talking, at the forum.

"There will be more actual contracts between the two governments in this regard under the new Obama administration," said Wellinghoff.

An economic stimulus package proposed in January by the Obama administration included $150 billion to develop next-generation biofuels, plug-in hybrid vehicles, a new digital electrical grid and lower-emission coal plants.

The two countries initiated a three-year energy efficiency training program at the forum. China's National Development and Reform Committee and the US-based Natural Resources Defense Council will create a website as a platform for information sharing.

Innovation needed in alternative energy field

March 9 (China Daily) -- Developing a low carbon economy is a must as China continues to industrialize, not only for the nation's energy security strategy, but also as part of an urgent international responsibility to address global climate change.

A low carbon economy requires both new policies and technological support.

But China is a developing country in the process of modernizing and its central task now is to develop the economy and make life better for its people. This puts some practical restrictions on how it implements a low carbon economy.

China is the world's second-largest energy consumer and is now the world's largest coal consumer. China's proven coal reserves are much larger than its proven oil and gas reserves and it imported nearly 51 percent of its oil in 2008. China's reliance on coal as a main source of energy will last for a long time.

Alternative energy

But China could enhance its national energy security by developing innovative policies than prompt change in the country's energy consumption structure, shifting it from heavy dependence on coal and oil to energy-saving products and alternative energy.

Inadequate funds and outdated technology also impede China's attempts to go green. China's green technology level is generally low. Investment methods for clean energy and environmental protection industries should be improved through preferential financial, fiscal and industry policies.

China needs to embrace the Clean Development Mechanism (CDM) market to try to get more international financial and technological support and to boost carbon credit trading with developed countries.

The CDM is a key component of the Kyoto Protocol. The Protocol enables industrialized countries with greenhouse gas reduction commitments to invest in projects that reduce emissions in developing countries, as an alternative to more expensive emission reductions in their own countries. Developing countries, in return, receive extra funding and advanced emission reduction technologies through CDM projects.

$200b for clean energy

According to United Nations' statistics investment in CDM projects amounted to $20.5 billion worldwide in 2006. Some $200 billion will be spent on clean energy projects in developing countries by 2030.

CDM projects will bring in alternative energy technology but it will likely come with strings attached. China needs to cultivate its own technology and put some of its top scientists to work on the issue.

An increasing number of people should be sent abroad to study green technology and more foreigners in such fields should be enticed over here.

China's carbon emissions are not only an economic issue, but also a social concern. A variety of environmental protection funds and organizations should be used to help get members of the public onto the "green road."

Widespread public acceptance of a low carbon economy would get individuals to employ various kinds of compensatory manners to offset their greenhouse gas emissions.

Green culture is growing in China and more people are practicing green ideas in their daily lives.

"China is ready to work unremittingly with the rest of the international community to achieve harmonious, clean and sustainable development in the world," Chinese President Hu Jintao said at the 2008 G8 Summit's Major Economies Meeting on Energy Security and Climate Change. Taking steps to encourage the kind of innovation needed to push the country toward a low carbon economy will accelerate China's gait on the green road.

Powering wind power

March 30 (China Daily) - China will not stop investing in large wind farms despite insufficient electricity demand amid the economic downturn, said a senior official from National Energy Administration (NEA).

Shi Lishan, deputy director of Renewable Energy Department of NEA recently told China Business Weekly that the current electricity oversupply does not alter plans to build more wind power bases.

The country's goal to raise its wind power generation capacity to 100 gW is still achievable, added Shi.

At the National Energy Work Conference in early February, Zhang Guobao, director of NEA said

China will build several wind farms with capacity of over 10 gW in the Inner Mongolia and Xinjiang autonomous regions and Gansu, Hebei and Jiangsu provinces over the next decade.

China Wind Energy Association Vice-President Shi Pengfei confirmed that China has started building six 10 gW wind power bases in these regions and provinces.

Gansu province's Jiuquan wind power base will have a 15 gW capacity by 2015, he said.

The Xinjiang wind power generation base in Hami will produce 20 gW of electricity. Inner Mongolia will have a 20 gW and 30gW wind power base in western and eastern part of the region, respectively.

Both Hebei and Jiangsu will each have wind power facilities capable of generating 10 gW but 70 percent of Jiangsu's wind power capacity will come from offshore operations.

If all the wind power bases finish construction by 2020, wind will account for 3 percent of the country's overall power generation capacity, up from 1.1 percent in 2008, said Shi, adding these facilities will cost one trillion yuan.

Domestic wind power generation capacity grew by 4 gW to 10 gW in 2008, the second fastest rate in the world, behind only the US.

Hebei is planning to attract 100 billion yuan worth of investment for its wind farm projects, which will give the wind-rich province a total wind power capacity of 12 gW by 2020, a senior provincial energy official said.

The province, one of the country's key wind power bases due to its closeness to North China's grid load center, will jointly fund the massive energy projects with nation's top power firms and other investors, said Zhao Weidong, vice director of the Hebei Provincial Development and Reform Commission's Energy department.

The province's total installed wind power capacity reached 1.1 gW in 2008, the second most in the country, after Inner Mongolia.

The country's five leading power generating groups, China Huaneng Group, China Datang Group, China Guodian Group, China Huadian Group and China Power Investment Group are all involved in wind farms projects in the province, said Zhao.

The largest existing projects are ones by China Energy Conservation Investment Corporation, which installed a 300 MW wind farm, and some slightly smaller ones build by Guohua Energy Investment Company (a subsidiary of China's top coal miner Shenhua Group) and Hebei Construction Investment Corporation, said Zhao.

New energy should be 'top priority'

March 12 (China Daily) -- Senior officials yesterday called on the government to treat the development of new energy as its top priority this year if it was serious about easing its energy shortage and improving the environment.

Zhang Guobao, head of the National Energy Administration, said on the sidelines of the annual session of the National Committee of the Chinese People's Political Consultative Conference (CPPCC): "China should never falter in its effort to develop new energy, even though the current financial crisis temporarily cushioned the conflicts between energy supply and demand."

He added: "We should keep a close watch on the development of cutting-edge technologies the world over, and invest more to improve research and development capabilities."

Zhang warned if the country did not give the development of new energy its due importance, "we will find ourselves lagging behind the world within a decade".

For many countries now, developing new sources of energy is an important move to cope with the global financial turmoil.

In US President Barack Obama's massive stimulus plan, launched last month, he hailed the construction of new energy industries as the key to creating more jobs and pulling the country's economy out of recession.

At present, coal accounts for two-thirds of China's energy consumption, while new energy accounts for no more than 5 percent of the total, indicating a huge potential to help shift the country's reliance on coal.

Last year, China imported 38.85 million tons of refined oil, an increase of 5.06 million tons from a year earlier, and its reliance on export for oil consumption reached 49.8 percent, 1.4 percentage points higher than what it was in 2007.

In the face of the escalating demand for energy, Zhang said it was "time to restructure the nation's energy mix" by exploring renewable energies and boosting clean energy consumption.

In Premier Wen Jiabao's government work report, delivered during the ongoing National People's Congress (NPC) session, he pledged that the country would vigorously develop a circular economy, clean energy and promote the development of nuclear, wind and solar power this year.

Many agreed that nuclear power should be prioritized in China's energy development agenda in the next 10-20 years.

"Nuclear power is the most effective energy source to control greenhouse gas emissions, as its power generation process does not emit carbon dioxide directly," said Chen Yingxu, deputy director of the College of Environmental and Resource Sciences at Zhejiang University and a CPPCC National Committee member.

"The rapid development in nuclear power technology in recent years makes it the safest and most economical energy source compared with other renewable sources, such as solar power and bio-fuel," said Chen.

China now has 11 operational nuclear reactors with a combined installed capacity of some 9,100 MW, which accounts for 1.3 percent of the country's total power generation.

According to a nuclear power development plan approved in 2006, the country expects to raise its nuclear power capacity to 40 GW by 2020, accounting for 5 percent of its total capacity.

With the recent boom in nuclear industry, there have been rumors that the country would readjust the target to 70 GW by 2020.

China plans to start work on four new nuclear plants this year in Haiyang, Rongcheng in eastern Shandong province, Sanmen in eastern Zhejiang province, and Yaogu in southern Guangdong province.

China Guangdong Nuclear Power Group, one of the nation's two major companies developing nuclear reactors, plans to invest 30 billion yuan ($4.4 billion) in its nuclear projects this year, Xinhua reported.

Pollution levels, energy use drop

March 9 (China Daily) - China made progress in reducing its energy use last year, according to a government report.

The National Bureau of Statistics (NBS)'s annual report, released late February, said energy consumption per unit of gross domestic product (GDP) fell 4.59 percent in 2008, slightly higher than the bureau's previous 4.21 percent estimate.

Even a small drop in China's energy use can save tens of millions of tons of coal. The Chinese government had earlier vowed to reduce its energy consumption by 20 percent per 1,000 yuan of GDP from 2005 levels, during the 11th Five Year period (2006-2010). But the country only cut it by 5.38 percent over 2006 and 2007, about a quarter of the five-year target.

But preliminary statistics showed that in 2008 China's emissions of sulfur dioxide (SO_2) and chemical oxygen (COD), two major pollutants, have likely dropped 7 percent and 5 percent, respectively, from their 2005 levels.

The country's 11th Five Year Plan requires they be reduced by 10 percent from the 2005 level by 2010. Deputy environmental minister Zhang Lijun said the country may surpass these targets before the deadline.

But China fell short of its target reductions of the two pollutants in the plan's first two years. The two indexes dropped only 2.14 and 3.16 percent, respectively, from 2005 level by 2007, less than the expected 4 percent.

Zhang said that the Ministry of Environmental Protection (MEP) has disapproved or postponed approval of 156 polluting or energy consuming projects.

China needs to "sprint" in 2009 to achieve its green goals, said Zhou Shengxian, environmental minister.

The country also closed inefficient production facilities in industries such as papermaking, coal and ethanol, since 2006, said Zhang.

China increased its capacity to treat medical waste (by 6 percent), residential waste (by 8 percent) and daily waste water (by 35 percent) since 2005, he added.

China's investment in ecological protection will increase to 1.53 trillion yuan from 700 billion yuan, according to the plan, and 350 billion of China's 4-trillion stimulus package is earmarked for environmental investment.

"During the new round of investment we need to avoid polluting and energy-consuming projects," said Xie Zhenhua, vice minister of the National Development and Reform Commission (NDRC).

Wang Jinnan, general director of the Chinese Academy for Environment Planning under MEP, said that the package's infrastructure projects must abide by relevant environmental policies from the beginning and environmental assessments of these projects should be stricter.

Environmental protection and energy conservation will likely be a hot issue during the NPC and CPPC annual sessions.

The National Development and Reform Commission has pledged to increase efficiency in the power sector and to push through more fuel price reforms, while closing down inefficient enterprises, echoing similar policies that have been in place for years.

The government vows to work to make the nation greener, introducing regional climate change programs, shutting small coal mines and power plants and continuing to experiment with cap and trade emissions programs.

Its efforts to increase efficiency include plans to enable power trade between provinces and to upgrade urban power grids.

According to the 11th Five-Year Plan, industrial demand for water should also drop 20 per cent from 2005 to 2010, while forests should make up 20 percent of the country's total land area, up from 18.2 percent in 2005.

Many regional governments have already made ecological promises in 2009.

The Beijing municipality proposed decreasing its COD and SO_2 by 2 percent and 3 percent in 2009, Hebei province plans to cut COD by 5.5 percent and SO_2 by 5 percent while the Inner Mongolia autonomous region plans to cuts its COD and SO_2 emissions to 80 to 90 percent of the 11th Five Year target levels.

Power firms bleed on high coal rates

March 7 (China Daily) -- China's five major power-generating companies incurred losses in January due to high coal prices.

All these companies lost money in 2008 also because of the same reason.

The companies are China Huaneng Group, China Datang Corp, China Guodian Corp, China Huadian Corp and China Power Investment Corp.

"We expect to see continuous losses in February also," said Zhai Ruoyu, general manager, China Datang Corp.

The current coal price is still "too high" for power companies, said Zhai, who cited that as the main reason for the losses. Transportation costs have also partly caused high coal prices.

Meanwhile the preferential power price policies made by some local governments are expected to be cancelled before March 15, according to the central government.

Many high-energy consuming industries have been facing difficulties due to the economic downturn. To mitigate some of their woes, local governments began to offer them preferential power prices since late last year. However, the move may "cause mess" in China's power pricing systems, said a statement.

"The first two quarters will be the most difficult for China's power industry. Power demand is likely to see a continuous decline in the first-half," the China Electricity Council (CEC) said in an earlier report.

Power demand is now expected to pick up only in the third quarter, according to the CEC. The five major power companies posted losses of around 40 billion yuan in 2008, while coal-fired power generators had losses of 70 billion yuan, according to the National Bureau of Statistics.

The losses are mainly due to rising fuel costs and lackluster electricity demand. In the first-half of last year coal prices went up sharply, and as a result many domestic power companies plunged into the red, said Xue Jing, executive, CEC.

What's more, many sectors of the economy have seen a slowdown since last September because of the global financial crisis, causing a decline in power generation, she said.

Expert warns of China's nuclear talents vacuum

March 4 (Xinhua.net) – Beijing-- China is in great need of nuclear science talents from the young generation, a nuclear physicist said here on Tuesday.

Zhu Zhiyuan, director of the Chinese Academy of Sciences Shanghai Branch, said China must step up efforts to attract and cultivate more young nuclear talents, in order to meet the demand of the country's future development.

China, realizing the huge potential of the nuclear power as a "clean energy", has already strengthened nuclear science education in recent years, said Zhu, who is here to attend the annual session of the National People's Congress, China's top legislative body.

However, these efforts could not at once make up for the lack of nuclear specialist education in the country caused by previous insufficient attention towards the field for more than a decade.

"Many young people at the time were simply afraid of nuclear technologies, while others assumed the prospect of nuclear power as unpromising," Zhu said.

Even now, few of the students enrolled in nuclear physics departments of Chinese universities or research institutes chose the field as their top choice, Zhu said, adding that he himself chose the subject inspired by Nobel Laureate Lee Tsung-Dao and Yang Chen-ning back in the 1970s along with many youths of his age.

He said the country's development of nuclear power and the civil or medical use of nuclear technologies are both indispensable from the cultivation of nuclear talents.

"China now needs a batch of ambitious young people to devote themselves to the nuclear science and explore the world of physics," Zhu said.

Automobile and Transportation

Wen bats for automobiles

March 6 (China Daily) -- China will take more steps to boost automobile demand by modifying the related policies and expanding the used car and auto leasing markets, said Premier Wen Jiabao.

"New growth areas of consumption will be fostered and developed. The second-hand vehicle and auto leasing markets would be standardized and rapidly developed," said Wen in the government work report speech he delivered at the opening of the second session of the 11th National People's Congress (NPC) yesterday in Beijing.

The premier said the government will also modify the related policies to guide and forge a healthy consumption pattern in the automobile market, one of the key sectors that would stimulate domestic demand and drive economic growth.

Moreover, "we will implement policies to reduce the vehicle purchase tax and subsidize rural residents' vehicles purchases to stabilize and increase consumer spending on cars and motorcycles," said the National Development and Reform Commission in its report on the implementation of the 2008 plan for national economic and social development at the NPC.

Shen Rong, vice-president of China Automobile Dealers Association (CADA), confirmed that it is now drafting a new standard for used vehicle appraisal and evaluation.

"The related government departments are doing research to modify the policy on the sector and establish a public information platform for used vehicles, in a way to standardize the market, and encourage the circulation of used cars," said Shen.

In January, China for the first time topped the US in automobile sales, after a series of industry and market support measures adopted by the government began to take effect.

Analysts said China's automobile market still lags the US market despite the better performance in sales volume. Used cars and automobile services are significant sectors.

"Sales of used cars make up only about one-third of the total number of cars sold in China, while the used car market is usually bigger than the new car market in developed nations," said Huang Yong, chief expert, China Automotive Technology and Research Center.

Currently, the sales of used cars in the US, Germany and Japan are 3.5, 2 and 1.4 times that of the new car market.

Last year, China traded 2.74 million of used vehicles, with a slight increase of 3 percent from 2007, the lowest growth in the recent years, according to CADA. It compared to total domestic automobile sales of 9.38 million units.

The trade revenue totaled 118 billion yuan, up 10.56 percent from the previous year, said the association.

However, "we are glad to see that among the used vehicles sold last year, passenger cars accounted for 1.43 million units, with a year-on-year growth of 10.17 percent, 7 percent higher than the total segment," said Shen of CADA.

Luo Lei, another official of CADA, predicted that the used car market would revive in the second-half.

Detailed auto stimulus plan released

March 21 (Xinhua.net) -- BEIJING -- China aims for 10 million units in both vehicle production and sales this year, according to an online government document concerning detailed automobile support package.

China's automobile industry is to yield an average 10 percent growth for its production and sales in the next three years, said the document, released on Friday.

The stimulus package was unveiled by the State Council, the cabinet, on January 14, but the detailed plan was not released by the government until March 20.

The auto support package was among nine others for the country's 10 industry initiatives by the government since January in a bid to cope with the downturn in the short-term, and upgrade its industrial structure for the long term.

In a three-year development plan, the document said by 2011, passenger cars with an engine displacement below 1.5 liters would take 40 percent of the market, and those below 1 liter would have a 15 percent share.

Analysts say smaller-engine cars use less oil and are more environmentally-friendly. They are also cheaper compared with big-engine, gas-guzzling cars.

China would also form two to three auto giants with capacities reaching 2 million in vehicle production and sales, and four to five smaller companies with capacities greater than 1 million in the next three years through mergers and acquisitions, according to the document.

Another government paper concerning stimulus support for the steel sector was also released Friday. It said China would set up several steel giants, with the top five producing 45 percent of the steel by 2011.

Excessive capacity and low industrial concentration have long plagued China's steel sector.

Based on 2007 figures from the China Jianyin Investment Securities, the top five Chinese steel companies produced only about 20 percent of the country's steel.

The steel support plans would strive to eliminate respectively 72 million and 25 million tonnes of obsolete iron and steel production capacities by 2011.

Subsidy helps green buses

March 16 (China Daily) --- Recent government measures could boost the alternative-energy bus industry.

The government will give public-transport companies and government agencies as much as 600,000 yuan ($88,000) in subsidies for each alternative energy bus they use.

Li Haiping, chairman of Zhongtong Bus Holding Co Ltd, said the subsidies will help companies get over the high-cost hurdles involved with initially producing green-energy vehicles.

Share prices of listed bus manufactures including Zhongtong Bus and Beiqi Foton Motors rose following the move.

"The policy is good for bus makers", said Qin Pan, brand manager of the Shandong-based Zhongtong.

"It will boost demand for alternative-fuel vehicles," he said.

The funds will be available for electric, hybrid and fuel-cell vehicles used for public transport and sanitation services in 13 cities, including Beijing, Shanghai, Chongqing and Shenzhen, according to a statement on the Ministry of Finance's website. Fuel-cell buses will get the highest subsidies.

Zhongtong produced and sold more than 20 alternative-energy and electric buses last year but plans to produce 200 to 300 such buses this year.

"The company could earn an additional 300 million yuan, 15 percent of this year's total projected income," said Li.

The government of Jinan in Shandong provinces are reportedly considering buying 320 renewable-energy buses for the 11th National Sports Games in October. Zhongtong may obtain most of the orders due to its good relations with the local government, said industry insiders.

The China Association of Automobile Manufacturers predicted there may be 600 green-fuel buses in China by the end of 2009 and 1,000 by the end of 2010. Beijing-based Beiqi has already won an order for 450 hybrid buses from that city's public transit body.

The company plans to build a new factory and expand its annual hybrid bus output to 1,000 units, according its website.

"The government subsidies are big enough for buyers to reduce costs," said Yao Hongguang, an analyst from Shenzhen-based Ping'an Securities.

But financial policy alone may not be enough, said Yao.

"There should be other ways to promote green buses, such as administrative orders for public transportation organizations to purchase them," he said.

China government policies steer Feb vehicle sales higher

March 11 (Agencies) -- China vehicle sales topped 800,000 units for the first time in eight months in February as Beijing's policy initiatives aimed at boosting consumption lured buyers back to showrooms.

China, which overtook the United States as the world's No 1 auto market in January, saw 2008 sales growth fall to its slowest rate in more than a decade as the global financial crisis weighed.

"The February figure is very impressive. It seems that the new incentives are really having an impact on the market," said Yi Junfeng, an industry analyst with Changjiang Securities.

The policies introduced at the start of the year, including the scrapping of some road fees and halving of sales taxes on small vehicles, have increased the number of buyers to showrooms nationwide, analysts said.

Many automakers such as Chery Automobile, maker of China's best-selling compact car QQ, recently unveiled ambitious sales target for the year.

A total of 827,600 vehicles were sold in February, up 24.72 percent from a year earlier, the China Association of Automobile Manufacturers said on Tuesday. Vehicle output rose 23.08 percent to 807,900 units.

Passenger car sales in February rose 24.23 percent from a year earlier to 607,300 units, the association said.

In the first two months, cars with engines of 1.6 litres or below benefitted the most. Combined sales of the segment rose 18.8 percent, Ministry of Industry and Information Technology data showed, outperforming a 5.81 gain in overall car sales.

Cautiously optimistic

However, some analysts and industry executives remain cautious about the market's outlook, saying a single monthly figure was not evidence of a sustained pick-up in demand.

The figures may have been slightly distorted by the week-long Lunar New Year holiday, which occured in January this year but in February 2008.

Still, automakers are heartened by the government's measures.

"China's car market will grow 10 percent this year, if there is good growth of 5 to 10 percent in March," Nigel Harris, Ford Motor's chief of sales and market in China, told Reuters this week.

The No 2 US automaker aims to outperform the market this year, betting on policy support to bolster sales of its newly-launched Fiesta small car which snapped up orders of more than 4,000 units in a five-week long pre-sale, Harris said.

China's large carmakers woo small rivals

March 9 (China Daily) -- China's auto makers, often touted as possible buyers of assets from desperate foreign giants, are instead heeding calls from the government to look to their fragmented and over-crowded home turf for deals.

China has more than 100 automakers who have been dragging their feet for years on combining to forge large, globally competitive groups, due largely to resistance from regional governments that are keen to protect local jobs and tax income.

But, with a push from the central government, they have developed a new sense of urgency as China's once-booming auto market slows sharply and losses pile up at many smaller firms.

"The problem with China is we have too many players fighting each other at the lower end but none has the clout to compete globally," said Guotai Jun'an Securities analyst Zhang Xin.

"There has been a lot of talk - or rather expectations - about Chinese snapping up US auto assets, but the automakers first need to make sure they have the ability to turn those assets around."

Sichuan Auto Industry Group Co, a tiny automaker tucked away in southwest China, denied a media report it was in talks to buy General Motors' Hummer brand for up to $500 million.

"I don't know where this is coming from," an executive at the company, which has barely $150 million in assets, said.

But he acknowledged that Sichuan Auto was recently approached itself by some big State-run domestic firms earmarked to lead a restructuring of the local industry.

Limited success

China's big auto groups, including Shanghai Automotive Industry Corp (SAIC) and FAW Group, are mostly low-price manufacturers for brands of foreign partners such as General Motors and Volkswagen AG, while smaller players have succeeded mainly in local niche markets.

Many Chinese companies harbor grand ambitions, hoping to emulate the global success of Asian giants such as Toyota Motor Corp, and some have expressed initial interest in brands such as Saab and Volvo, according to sources familiar with the situation.

But Chen Bing, an official at China's top economic planner which would have substantial influence over any overseas deals, recently tempered expectations by saying Chinese automakers were not yet strong enough to face such challenges.

The central government, for its part, is expected to issue a detailed plan as early as this month encouraging big players to take over smaller domestic firms, state media reported.

The government wants to cut the number of major Chinese auto groups to 10 or fewer from 14, and wants two or three mega-producers with annual output of more than 2 million vehicles each, the reports said. SAIC Motor's production was 1.7 million vehicles in 2008, compared with 8.2 million at Toyota.

To consolidate, however, they must overcome zealous local governments that have jealously protected regional firms and, in the process, fueled duplicative and wasteful investments, auto executives and analysts said.

Some auto executives have been talking down the prospects for acquisitions after SAIC's investment in Ssangyong Motor Co turn sour when the South Korean SUV maker filed for protection from creditors.

"Now we are not interested in acquisitions and we don't have any plans (for acquisitions)," Chen Hong, president of SAIC's listed unit SAIC Motor, said over the weekend.

Strength in fewer numbers

But the case for domestic buys has grown more compelling.

"Now that the economy is slowing and the pace of consolidation is picking up in other industries such as steel and cement, I don't see why autos would be much different," said Chen Qiaoning, industry analyst with ABN AMRO TEDA Fund Management.

Car sales growth in China slowed to a single-digit rate in 2008 for the first time in at least a decade.

Beijing has indicated that it wants Changan, a Ford Motor China partner, and three other big State-controlled automotive groups - Shanghai Auto, FAW and Dongfeng Motor Corp - to lead the nationwide industry realignment.

Signs are already emerging of fresh moves to consolidate.

Hunan Changfeng Motor Co is holding separate talks with Guangzhou Automobile Group and Beijing Automotive Industry Holding Co and could reach a deal in a matter of weeks, a source with direct knowledge of the matter said.

Chery Automobile and Anhui Jianghuai Automobile group may also join hands, executives and analysts said.

However, some mid-sized private-sector players that are well-established in specific segments, such as Great Wall Motor Co, could be tough customers.

"Demand for our vehicles is pretty solid so far this year and we have set a target for about 70 percent sales growth for the full year," said a spokesman at Great Wall, a leading domestic manufacturer of pickup trucks and SUVs.

"We are also profitable and well-managed. Why should we throw ourselves into the arms of someone else who may be bigger but not necessarily stronger than we are?" he asked.

Aims for 10 million new cars in 2009, but $1.5 billion goes to EVs

March 26 (Susty) -- **Scaling Up and Slimming Down China's Automobile Industry**

In the years following, the number of auto manufacturers swelled , if with varying quality and branding originality. Today, there are over 100 domestic carmakers, with about a dozen clustering the market. In the wake of government-led consolidation and recent economic slowdown, three clear-cut leaders have emerged:

• Shanghai Automotive Industry Corporation (SAIC)

• China First Automobile Works Group Corporation (FAW Group)

• Dongfeng Motor Corporation (DFM)

Altogether, these companies comprised roughly half of auto sales in 2008, according to trade association China Association of Automobile Manufacturers Although on average these automakers enjoyed double-digit growth in sales for the years 2008/2009, car sales are already flagging, and, like their American analogues, China's powerhouse automakers are finding it difficult to weather the tough times.

And that is where the Chinese government comes in – literally – stage left. In mid-January, Beijing pledged assistance to the automobile industry as part of its stimulus plan. Quite unlike its American counterpart, the automotive piece of China's stimulus package focuses not on giving struggling carmakers direct handouts, but rather in boosting consumer demand.

China Auto Target: Produce 10 million Cars Domestically in 2009

The plan includes 5 billion yuan worth of allowances (US$730 million) – or 5,000 yuan (US$726) a head – for farmers wishing to upgrade their current vehicle and slashing purchasing tax for small cars in half (from 10 percent to five percent).

The Chinese government-set target is to have 10 million domestically manufactured cars sold in 2009, which would exceed the total number of American made automobiles sold worldwide in 2008. If efforts to get more cars on the road sounds like precisely the thing China's smoggy skies and cramped cities don't need, don't despair just yet.

First, the initiative aims at increasing car sales among rural populations. Chinese cities are holding a firm line on urban auto use, a real necessity considering current traffic-choked urban roads. Additionally, cities like Shanghai have restricted the issuance of new licenses considerably, and are testing measures aimed at keeping existing autos off the street. In Beijing, for example, cars are prohibited from driving one day of the workweek, depending on their license plate number. This follows the similar, but more stringent, measure taken in the capital during and in the lead up to the 2008 Olympics.

Second, the central government has promised 10 billion yuan (US$1.5 billion)funding for development and deployment of alternative energy vehicle technologies, including hybrid, all electric, and fuel cell vehicles, as well as standards that require more energy efficient manufacturing facilities.

Electrifying News: Central Government Pledges $1.5 Billion to EVs

Though part of the earmarked spending will go to auto companies, Industry and Information Technology vice minister Miao Wei says consumers will enjoyrebates for of energy-saving automobile purchases. The government may cough up up to 50,000 yuan (US$7,300) in rebates depending on the energy efficiency of the car.

A great first step in promoting more eco-friendly autos in China, the success of this initiative will depend, in large part, on the capacity of China's carmakers to increase demand for low-priced, innovative, and technologically advanced autos by creating a superior homegrown variety to the current default option: Toyota Prius (at the recently discounted price of $36,500, even the domestically manufactured models are still far out of the budget of even wealthy Chinese).

At the moment, three companies are racing to outdo each other in electric vehicle sector:

•BYD
•Chery
•Nanjing Iveco

Here's how they stack up against each other:

China's electric prototypes are indeed impressive. The question on everyone's mind is whether any of the three electric automakers will be able to scale up volumes and decrease price to make the vehicle competitive – even with the generous rebates – on the market?

Despite this promising news, one wonders why the government is encouraging private-car purchases and energy-intensive manufacturing (instead of a service-based economy) to grow given already scarce resources. In its defense – and unlike the US in the '60s–'90s – China is also pumping a ton of money into alternative transportation systems, in order to promote rail andurban transit infrastructure.

Nevertheless, automobiles are likely to become less a luxury good and more aneveryday part of life in China, in response to the necessities of modern life and almost universal development benchmarks. This suggests that keeping up with the Joneses is a behavioral inclination that crosses cultural divides.

Volkswagen's 'strategy 2018' drives sustainable future

March 5 (Xinhua News) -- Volkswagen AG is best known as the manufacturer of the iconic "Beetle", but its new claim to fame may be its recession-busting bid to boost production and increase market share in the already highly competitive Chinese automotive market.

The German company has just unveiled ambitious plans to consolidate its position in China through both new marketing initiatives and a product development program tailored to the needs of the Chinese motorist.

The bold manifesto, released on Feb 26 with target of increasing annual vehicles sales from the current 1 million to 2 million as well enlarging its fleet by adding or renewing at least four models per year by 2018, will open a new chapter for the company's operations in China.

"We have launched Strategy 2018 in line with the long-term objectives of the Volkswagen Group in China. It follows on from the successful restructuring, in line with the Olympic Program, we adopted in the run-up to the 2008 Games," said Winfried Vahland, executive vice-president of the Volkswagen Group, and president and CEO of Volkswagen Group China (VGC).

According to Vahland, 2008 was an extraordinary year for the company and its two Chinese joint venture companies, Shanghai Volkswagen and FAW-Volkswagen: "We exceeded our three-year Olympic Program (2005-08) targets and achieved every objective identified in our 'Year of Striving for the Gold Medal' initiative. We also sold more than one million cars for the first time. These remarkable achievements have consolidated Volkswagen's dominant position in the Chinese auto market and have laid a solid foundation for VGC's continued growth."

As a result of the recession in the global economy, many auto manufacturers encountered an unexpected sales reduction last year and are now planning production and sales cutbacks to live through tough times in 2009. Some of them are even considering of shedding off unprofitable brands and assets.

"Although the global economy and automobile markets still face challenges, we remain fully confident in the long-term prosperity of China's automotive industry and of Volkswagen Group's future role as an industry leader in the country," said Vahland.

Vahland believes that Shanghai Volkswagen and FAW-Volkswagen, two powerful joint venture companies, can generate new win-win partnerships and achieve even greater success for VGC in the future, a concept VGC refers to as the "1+1>2" Philosophy (one plus one is greater than two).

"We recognize that the slowdown presents challenges. We have defined the plan to face these challenges and take advantage of all the opportunities on offer."

His confidence comes from the excellent sales performance Volkswagen Group achieved last year.

For the 2008 fiscal year, with a 4.5 percent increase in sales revenue to 113.8 billion euros, the Group's operating profit rose by 3.0 percent to 6.3 billion euros.

"We met our target and surpassed our record results for 2007, even though conditions were tougher," Chairman of the Board of Management of Volkswagen AG, Martin Winterkorn, said yesterday.

"The current year remains extremely difficult for the entire automotive industry. Our target is to perform better than the overall market," Winterkorn commented on future business.

Last year, the company, the biggest European carmaker, released Mach 18 (Group Strategy 2018), a development plan for the Volkswagen brand globally that established the development direction of Volkswagen, with the ultimate goal of becoming a leader in the automobile industry worldwide.

In November, it pushed forward a plus plan with focus on becoming an economic and environmental leader in the global automotive industry, which remains the central element of the Group Strategy 2018.

For this reason, the Volkswagen AG Board of Management is intensifying efforts to continue with the successful realization of this ambitious project even in a difficult economic period.

Based on Mach 18, "VGC's newly-launched Strategy 2018 is geared toward the current ongoing Chinese automobile market situation and is related to all brands and long-term business strategy in China in order to achieve the sustainable development of the company," said Vahland.

"And we want to deliver a very clear message (by the strategy) that we at Volkswagen promise long-term development in China and will increase our investment in this market."

Last year, Volkswagen sold 1.02 million vehicles in China - marking a year-on-year growth rate of 12.5 percent. This easily outstripped the 6.7 percent average increase for the whole industry - the smallest increase in a decade on account of growing concerns about the international financial situation. Total vehicle sales for 2008 were said to be around 9.4 million.

Sales of the Volkswagen brand amounted to 844,491, up 8.2 percent from 780,784 units in 2007, including 12,649 imported vehicles. Audi delivered 119,598 vehicles to customers including 13,640 imported units, with a 17.3 percent jump.

The sales of Skoda cars more than doubled to 59,284 from 27,325 units in 2007. The group also sold 518 Bentley cars, and 117 Lamborghini super sports cars in 2008.

To achieve its double-sales target by 2018, Volkswagen is aiming to improve customer satisfaction and brand image through enhanced dealer networks and an upgraded service.

It will double dealership numbers from 1,000 to 2,000. This expansion will coincide with improvements in dealership management aimed at creating the best customer service ethos in the Chinese automotive market.

Volkswagen was one of the first overseas car manufacturers to venture into the Chinese market with a focus on developing a dedicated dealership network. During the past 25 years, VGC has seen its dealership sales grow from initial sales of 1,710 units in 1985 to current sales of more than 1 million cars per annum.

Vahland also outlined his belief that the bulk of market growth will come from increased demand for passenger cars, especially in medium and small cities, where the presence of VGC is currently relatively weak.

However, he also said the ambitious expansion plan never meant compromising on quality. The company's commitment to green issues was also paramount in its future plans in China.

"We will continually optimize production in terms of production efficiency and product quality in order to maintain our leading position in the industry," said Vahland.

The company also maintains a commitment to two of the company's existing initiatives - its "Powertrain" technology/customer service strategy and a wider policy of developing more environmentally-friendly cars.

VGC remains committed to a 20 percent reduction in fleet consumption and emissions by 2010. The implementation of the Powertrain technology, Volkswagen's proprietary environmentally-friendly technology brand, has already made remarkable inroads in achieving these objectives.

"So far, we have reduced the average fuel consumption of our automotive marques by 15 percent. Engine downsizing strategy is another sector we are focusing on. We are looking at not only reducing fuel consumption, but also at generating more power," said Vahland.

VGC also has underscored its commitment to the environment through a series of highly successful initiatives throughout China. As well as the introduction of its Powertrain technology, it has sponsored a TV series on road safety, produced a green education campaign (entitled "Volkswagen's Green Future Environmental Protection Initiatives"), and launched both the Shanghai Volkswagen's Olympic Wish Woods

Plan and the FAW-Volkswagen's Public Welfare Woods program. It also provided a "Green Fleet" to assist with the logistics of the 2008 Olympics.

Oil and gas

China to boost Russia energy links

March 6 (China Daily) -- China will renew its deals with Moscow for energy resources before the end of this month, said the Chinese ambassador to Russia yesterday as he hailed the unbreakable link between the two nations.

The agreements will include a long-term crude oil trading pact and a project to build a new pipeline, ambassador Liu Guchang told China Daily during discussions at the CPPCC.

"It marks a major breakthrough in bilateral energy cooperation," he said, "and reflects the strengthened and practical efforts of two countries in coping with the sharp drop in trade caused by the global financial crisis."

And he added with gusto: "No matter how grave the economic crisis is, it will not affect the energy cooperation between China and Russia."

Liu said the move was a crucial part of a high-level strategic partnership, adding: "China's energy security is key to the country's sustainable development. For Russia, the Chinese market is the most stable, has the most potential and is the most geographically convenient."

On Feb 17, China signed a $25-billion energy deal with Russia in Beijing that will see it secure 15 million tons of oil - 300,000 barrels a day - from Moscow for the next 20 years in return for loans.

Pan Zhanlin, a specialist on Sino-Russian relations and ex-Chinese ambassador to the former Yugoslavia, hailed the energy cooperation, adding that the implementation of the agreement is crucial.

Liu, meanwhile, said the bilateral trade had hit a historical low, with the volume dropping 40 percent in January compared to the same month last year.

Describing it as "a gloomy picture", the ambassador said both sides were affected by the crisis, resulting in shrinking markets, a shortage of financial liquidity and decreased purchasing power.

"We have not made accurate analysis so far," Liu said, "but we are both working on methods to boost trade."

Trade between Russia and China was valued at $56.8 billion last year, up 18 percent year-on-year but a sharp fall from the 44.3 percent of 2007.

Gas price hike on cards

March 20 (China Daily) -- China will raise gas prices within the year, industry insiders said yesterday. The current low price scenario for natural resources offers a good opportunity to make price adjustments now, they pointed out.

It is the right time for China to hike natural gas prices, said Lin Boqiang, energy professor with Xiamen University. Since the prices of gasoline and diesel are relatively low now, any rise in the price of natural gas will not affect domestic consumers much, he said.

The country should further reform its natural gas pricing mechanism to ensure healthier development of the industry. Currently, the pricing system is "very messy", Lin said.

"I believe this round of price adjustment will not be very huge," he said.

The State-capped natural gas prices are less than half of the international prices. The National Energy Administration (NEA) had said earlier that reforming the gas pricing system would be "its key task this year".

NEA head Zhang Guobao had said "China should build a reasonable natural gas pricing mechanism as soon as possible".

Analysts said the country's rising imports of the fuel would end up further linking its gas prices to the international prices.

Last year, China started building its second west-east gas pipeline, the largest of its kind in the world. The project will cross 14 provinces, autonomous regions and municipalities. It will carry 30 million cu m of natural gas every year from Central Asia and Xinjiang to the eastern and southern areas, including Shanghai and Guangdong.

The price of natural gas imported from Central Asia through the pipeline would be higher than current gas prices in China. PetroChina, the project builder, is now conducting studies to decide the terminal gas cost of the project, an official with the company told China Daily yesterday.

"It (the terminal price of the second pipeline) will be higher than the current prices," said the official, who did not want to be named.

Zhang Guobao, also vice-minister of the National Development and Reform Commission, said in February that the government would work out the terminal price of the second pipeline by the end of this year.

China's production of natural gas rose 12.3 percent year-on-year to 76.1 billion cu m in 2008 as the government promoted cleaner energy, according to the China Petroleum and Chemical Industry Association. The annual growth rate was down from 23.1 percent in 2007.

The country will increase its natural gas production to 120 billion cu m in 2011, a three-year plan chalked out by the NEA has outlined.

Oil, insurance majors may report poor earnings

March 24 (China Daily) -- Industry heavyweights in the oil and insurance businesses may post poor earnings results for 2008, analysts have said.

Seven industry behemoths, including PetroChina, Sinopec, China Shenhua Energy Co and China Life, which together account for more than 40 percent of the market capitalization at the bourses, are scheduled to release their 2008 earnings results this week.

"The companies in the oil and petrochemicals sector have experienced a tough time in 2008," said Qian Qimin, analyst, Shenyin & Wanguo Securities. However, he said "the market may have already discounted such gloomy news to some extent."

Sinopec, the country's largest oil refiner, warned in January that earnings may decline by up to 50 percent due to the disparity between high global crude prices and low domestic refined oil prices during the first half of 2008.

Data from the China Petroleum and Chemical Industry Association (CPCIA) suggest that China's three major oil companies - PetroChina, Sinopec and CNOOC - are expected to post combined profits of 222.8 billion yuan in 2008, a decrease of 31.3 percent from a year ago.

Analysts, however, said these three companies could expect better revenues this year due to a rebound in domestic demand and relatively stable oil prices.

China Life, the country's largest insurer also warned in January of a 50 percent fall in earnings for 2008. Another insurer, Pacific Insurance Co alerted a possible 80 percent earnings decline.

"Insurers' investment returns usually occupy a large proportion of the companies' profits. Due to a sluggish stock market in 2008, insurance companies are likely to report shrinking profits," said Tao Zheng'ao, analyst with Donghai Securities.

If bank rates are cut further to below 2.5 percent, life insurance companies would be under more pressure this year, since their rate of insurance policies would be higher than the benchmark interest rate, according to Tao.

PetroChina get approval for Shenzhen’s LNG terminal

March 7 (Bloomberg) -- PetroChina Co., the nation’s biggest oil producer, has won initial approval from the National Development and Reform Commission to build a liquefied natural gas receiving terminal in Shenzhen, a commission official said.

The company has been allowed to conduct a feasibility study for the project in the southern province of Guangdong, Hu Weiping, deputy head of the NDRC's oil and gas bureau told reporters at the nation's legislature. The Beijing-based producer is selecting sites and assessing the technical and economic viability of the terminal, Hu said.

PetroChina is building gas import terminals on the nation's east coast as demand for the cleaner-burning fuel rises. The company may sign an agreement to buy LNG from Exxon Mobil Corp.'s Gorgon project in Australia under a term contract, Chairman Jiang Jiemin said March 5. The Shenzhen terminal may cost as much as HK$8 billion ($1.03 billion), the South China Morning Post reported Feb. 23.

"We have just received an application for the Exxon deal, and it is going through the approval process," Hu said. It will be up to PetroChina to decide whether the LNG from Exxon will supply the Shenzhen terminal, he added.

China is adjusting its plan to develop LNG because of changes in the economy, Hu said, without elaborating. The current lower prices offer a "good opportunity" for LNG buyers such as China, he said.

LNG Pricing

The government plans to bring domestic natural gas prices in line with global levels to encourage imports of the fuel within a "workable" period of time, Hu said, without giving more details. "It takes time to find a balanced pricing system acceptable to both suppliers and consumers," he said.

The country will have to rely on domestic production, cross- border pipelines, LNG terminals and coal-bed methane to meet demand for natural gas, Hu said.

PetroChina has found gas reserves at the Longgang field in southwest Sichuan province, although here hasn't been a "definite result" on the size of the reserves, Hu said today.

China, the world's second-biggest energy consumer, is planning a third natural-gas pipeline across northwest Xinjiang province, although the construction schedule has yet to be set, Wang Lequan, Communist Party chief for the province, said yesterday. Gas will be sourced from Turkmenistan, Uzbekistan and Kazakhstan, he said.

Drawing Board

The first pipeline across Xinjiang to China's eastern regions has been in operation since December 2004. The second, costing more than 250 billion yuan, is under construction.

"The third link is still at the drawing board stage," Hu said today. "Our current focus is on the second gas pipeline from Turkmenistan and to put it into commercial operation."

China has yet to secure a fuel source for the third link, Hu said. "The original plan was to import from western Siberia, but we haven't reached an agreement yet," he added.

A retail pricing formula for the second West-East gas pipeline, which terminates in Guangdong and Hong Kong, may be settled by the end of this year or the start of 2010, Hu said, without elaborating.

China National Petroleum Corp., PetroChina's parent, and Myanmar are still working on an agreement for a cross-border gas pipeline, and approval has not been given yet, Hu said.

Lower crude oil prices have given China the opportunity to plan on boosting imports to fill its reserves, Hu said.

China's West- to East pipeline project

March 25 (BUSINESS WIRE) -- FLORENCE -- GE Oil & Gas technology has again been selected for one of the largest gas transmission projects in the world. GE will be the primary supplier of compression equipment for the western section of China's second West-to-East Gas Pipeline. Since 2005, GE has been awarded bids by PetroChina worth over $600 million dollars.

Longer than the Great Wall

The second West-to-East pipeline, will be part of the ongoing natural gas pipeline infrastructure in China that, when completed over the course of the next five to six years, will total approximately 20,000 kilometers. This second pipeline, 8,700 kilometers in length, will be 2,000 kilometers longer than the Great Wall. This monumental pipeline will snake through 13 provinces and autonomous regions, and will play a vital role in supporting the country's energy security and economic development. Existing Chinese natural gas pipelines total 30,000 kilometers in length.

Providing Asia with vital energy infrastructure

This deal marks GE's third major win to support the massive Chinese pipeline network. Total GE orders are expected to be more than $600 million. Previously, the company provided equipment for the expansion of the first West-to-East pipeline project, and for two stations (including the head one) of the second West-to-East pipeline project.

In addition to the West-to-East pipeline project, GE has been an equipment supplier for Sinopec's Sichuan-to-East China pipeline, which transports natural gas from the Puguang field in Sichuan to Shanghai in China's eastern region. Sinopec (China Petroleum and Chemical Corp.) is China's second largest oil and gas producer.

"Our latest win underscores GE's role as a major supplier of pipeline compression technology for this vital region of the world," said Claudi Santiago, President and CEO of GE Oil & Gas. "Inclusive of the western section of West-to-East Gas Pipeline, since 2005, we have supplied nearly 60 turbocompressor trains for pipeline infrastructure projects across Asia."

Technology and speed make the difference

As part of a pipeline boosting station, GE turbocompressor technology keeps gas flowing from remote regions of Northwestern China, near the Kazakhstan border, to parts of Eastern China such as Shanghai, where the gas is urgently needed to support dynamic economic growth.

Santiago added, "As we continue to support the development of China's pipeline infrastructure, we will build upon lessons learned from our previous projects in the country."

To meet China's soaring energy needs, all phases of the project have faced tight construction schedules, making on-time and complete delivery of equipment critical. In response, GE Oil & Gas has redesigned the packaging of the turbocompressor units and implemented simplified installation and commissioning procedures to reduce installation time and site activities.

In late 2008, GE Oil & Gas established a new installation record by completing work more than two months ahead of schedule for two of the compression stations involved in the extension of the first West-to-East pipeline. Installations at both the Yanchuan and Dingyuan compressor stations were completed more than 40% faster than previous installations on the pipeline.

About the pipeline

The developer and owner of the West-to-East pipeline, PetroChina, is China's leading oil and gas producer and distributor. The second West-to-East project features pipes with 48-inch diameters, some of the largest in the industry. When completed, it will add 30 billion cubic meters of capacity of natural gas transmission per year, half of China's annual total natural gas production, enabling 400 million people along the route to access natural gas. This will bring China's primary energy consumption rate of natural gas to 5%, up from 3.5%. The total flow capacity is equivalent to 30% of total yearly gas consumption in the United Kingdom. The compression stations in phase two of the second West-to-East Gas pipeline are expected to go into commercial operation between the second half of 2010 and the end of 2011.

About GE's technology

GE Oil & Gas will supply PGT25+ gas turbines and PCL 800 compressors for seven pipeline compression stations, as well as electric motor-driven units for another three stations. Equipment will be manufactured at GE Oil & Gas facilities in Florence, Italy, and GE facilities in Cincinnati, Ohio.

Based on aeroderivative gas turbine technology initially developed by GE's Aviation business, the PGT25+ is an example of technology sharing among GE business units. "This synergy is a major benefit that GE can bring to customers in a wide range of industries," noted Santiago.

GE Oil & Gas in China

GE Oil & Gas has been active in China for more than 30 years and has a strong presence in the refinery and petrochemical sectors of the country's oil and gas business. With the growing demand for natural gas transmission, as illustrated by the two West-to-East pipeline projects, GE Oil & Gas greatly expanded its role as a supplier of pipeline compression equipment in the country and region.

About GE Oil & Gas

GE Oil & Gas (www.ge.com/oilandgas) is a world leader in advanced technology equipment and services for all segments of the oil and gas industry, offering complete solutions for production, LNG, transportation, storage, refineries, and petrochemicals. It also provides pipeline integrity solutions including software and asset management. With its acquisition of VetcoGray and Hydril Pressure Control, GE Oil & Gas now offers additional products, systems and services for drilling, completion and production within onshore, offshore and subsea applications.

About GE

GE is a diversified global infrastructure, finance and media company that is built to meet essential world needs. From energy, water, transportation and health to access to money and information, GE serves customers in more than 100 countries and employs more than 300,000 people worldwide. For more information, visit the company's Web site at http://www.ge.com. GE is Imagination at Work.

PetroChina's net profit for 2008 down 22%

March 25 (Xinhua News) -- PetroChina Company Limited reported Wednesday its net profit for 2008 dropped by 22 percent from a year ago, due to fuel price caps, windfall taxes and decreased demand in the last quarter of the year.

Net profit totaled 114.431 billion yuan ($16.75 billion)- as calculated by international accounting rules. Earnings per share in 2008 fell by 0.19 yuan per share to 0.63 yuan, the company said in a statement to the Shanghai and Hong Kong stock markets.

Zhou Jiping, vice chairman and president of PetroChina attributed the profit slump to the global financial crisis and state policy factors including higher payments of a special tax on domestic crude oil sold at more than $40 a barrel, and national ceilings on domestically refined oil products.

"The overall development of the company maintains steady, orderly and healthy momentum despite the profit drop," said Zhou.

In 2008, PetroChina's turnover reached 1.07 trillion yuan, representing an increase of 28.1 percent from the previous year. Basic earnings per share were 0.63 yuan, approximately 0.19 yuan less than that of 2007.

The company said it received a subsidy of 15.7 billion yuan from the government for losses in oil refining. Windfall taxes on domestic crude oil for the company exceeded 85 billion yuan in 2008, 40.6 billion yuan more than in 2007.

"The performance is within market expectation," said Wang Jing, analyst with Orient Securities.

The realized crude oil price of PetroChina in 2008 was $87.55 per barrel, up 34.1 percent from 2007.

As the most important profit contributor of PetroChina, the exploration and production segment realized an operating profit of 240.2 billion yuan in 2008, representing an increase of 15.8 percent from the previous year.

Crude oil output reached 871 million barrels, up 2.9 percent year on year. Output of marketable natural gas rose 14.5 percent from 2007 to 1.864 trillion cubic feet.

PetroChina refined 850 million barrels of crude oil in 2008, representing a year-on-year increase of 3.2 percent.

Affected by macro economic measures, which kept domestic prices of refined products at a lower level, and shrinking sales of refined products toward the end of 2008, the refining and marketing segment recorded an operating loss of 82.97 billion yuan.

The chemical and marketing segment of the company recorded an operating loss of 2.88 billion yuan, as a result of weak market demand and a drop in product prices.

The natural gas and pipeline segment has become an important profit contributor to PetroChina, with an operating profit of 16.06 billion yuan, up 28.5 percent year on year.

The company witnessed an increase of 92.10 million barrels of oil equivalent in its overseas oil and gas net production, with an increase of 50 percent from 2007 to 2008. The company's realized volume of international oil and gas trade reached 57.40 million tons, up 54.5 percent.

The company said it was expected to face severe challenges in 2009 with the deepening global financial crisis, but the capabilities for sustainable development maintained, the statement said.

Wang Jing said crude oil price will be the key factor for PetroChina's performance in 2009.

As the government launched the new pricing mechanism for refined products in 2009, which ensures profits of oil refiners, rising crude oil prices would contribute a lot to oil company's profits, she said.

PetroChina is the Hong Kong and Shanghai-listed subsidiary of China National Petroleum Corporation, China's largest oil producer.

Share prices of the company in the mainland A share market dropped by 1.70 percent to 11.57 yuan on Wednesday, while the price in the Hong Kong market dropped by 0.3 percent to HK$6.47.

PetroChina Xinjiang to boost oil storage by 60%

March 23 (Agencies) -- PetroChina's Xinjiang Oilfield Corporation has started an expansion that would boost its crude oil storage capacity by 60 percent by August 2010, a newspaper run by parent CNPC reported on Monday.

The Xinjiang unit will add 450,000 cu m of crude oil tanks to its Wangjiagou oil storage facility in two years, with three tanks with 50,000 cu m of storage capacity each set to be ready for use by October 30 this year, the China Petroleum Daily said.

The other six tanks of the same size are scheduled to be operational by August 10, 2010.

The expansion would boost Xinjiang Oilfield's storage capacity to 1.2 million cu m (or 7.6 million barrels) and increase its ability to handle more crude oil produced in its own fields or imported from Kazakhstan, according to the report.

In December 2008, Xinjiang Oilfield built 1 million cu m of oil storage tanks in Shanshan in Xinjiang, the first phase of a massive crude oil storage project that would eventually be able to hold 8 million cu m of oil.

China's crude oil imports declined for the second time in a row in February despite slumping importing costs, as domestic demand dwindled due to a weakening economy and limited storing facilities were mostly filled.

The world's second largest oil user, relying on overseas supplies for half its oil demand, China has added a series of new stockpiling facilities in recent quarters but its overall oil stocks at the end of January would cover only 44 days of forward demand, according to the Xinhua news agency.

The level is approximately half the stocks that members of the International Energy Agency are required to hold.

Climate Change and Air Pollution

Emissions reduction must be global

March 2 (China Daily) -- Solving the problem of climate change by stabilizing the rate of temperature change requires engaging both the United States and China in the reduction of greenhouse gas emissions.

According to a recent analysis by the Environmental Defense Fund, if the 2C global average change threshold is considered to be necessary to reduce significant risks of dangerous climate change impacts, aggregate global emissions must begin to decline by 2015-2020 if the target for temperature change is to be reached.

Reductions in developed nations alone, unless unrealistically deep, are insufficient to reduce global emissions overall in the face of emissions growth in developing nations. While controlling greenhouse gas emissions in the US is necessary in order to address climate change, given China's substantial emissions, it is not sufficient.

So when climate change was listed as one of the key topics of US Secretary of State Hillary Clinton's trip to China and recently appointed US Special Envoy on Climate Change Todd Stern was brought on board, lots of attention was placed on the outcomes and even potential breakthroughs that could be achieved between the two countries. People all over the world understand that the efforts of both the US and China over the next decades to cut greenhouse gas emissions will play a large part in determining the ultimate outcome of this global campaign.

Two key messages came out of the trip and they were emphasized at different occasions during it - one is that clean energy and climate change are among the most important issues that will be covered in the to-be-established two-track strategic and economic dialogue between the two countries, the other is that although climate change amounts to a daunting challenge, it also presents enormous opportunities in the transformation from a high to a low carbon base.

Substantial progress has been made in building public and political support for greenhouse gas control in the US. The inauguration of the Obama administration is expected to bring the nation's climate change campaign onto a new footing. This momentum, which has taken several decades to build in the United States, has started to appear in China.

To its credit, China has done more in the past decade to officially recognize its role in global warming than most of its peers in the developing world, and these kinds of actions are being taken more frequently.

China's overall objectives were set out in the White Paper on China's Climate Change Actions and Policies and China was able to announce that through its energy efficiency program alone it reduced 335 million tons of greenhouse gas emissions in 2006 and 2007. Ambitious domestic energy targets have provided China with incentives to seek more innovative tools to tackle environmental challenges.

The importance of market-based mechanisms such as emissions trading has attracted the attention of Chinese think tanks and policymakers. Recently, Chinese researchers published a province-by-province assessment of their net carbon footprint by calculating industrial emissions and sequestration in forests. The interesting aspect of the study was the conclusion that provinces with a carbon deficit should purchase from those with an excess within a "carbon source - carbon sink" trading program.

China is a responsible nation and Chinese leaders understand that a significant new wave of innovation toward a low carbon economy "the green road" is being launched globally.

US-China co-op urged on climate change Deputies make green proposals

March 16 (China daily) -- Members of this year's annual National People's Congress (NPC) and Chinese People's Political Consultative Conference (CPPCC) sessions made more green proposals and gave environmental problems a higher profile than in previous years.

Zhao Linzhong, an NPC deputy and chairman of the Furun Group, proposed establishing some kind of environmental police agency to enforce regulations at a local level, with authority to punish those breaking such laws.

The country has created and revised many green regulations in recent years but they often are ignored or altered on local scale projects, said Zhao.

"Local environmental protection bureaus currently don't have enough authority, which inhibits crack-downs and punishment," he added.

Some developing countries have already set up environmental police agencies, China can learn from them, he said.

Chen Enfu, an NPC member and professor at the Chinese Academy of Social Sciences, proposed using electronic books instead of paper books.

"It is convenient way of reading and would reduce paper imports and save cutting trees," he added.

He said the education department, and other relevant agencies, should establish administrative policies to encouraging electronic book use in schools and libraries.

Zhang Yin, a CPCC member and chairwoman of Nine Dragons Paper (Holding) Ltd, proposed increasing ecological protection and resource recycling.

"This year's sessions are focused on economic development but environmental problems can't be neglected," said Zhang.

Zhang's company uses waste paper to make its packing paper and she was recently named one of the world's 100 green millionaires by the UK's Sunday Times.

Chen Fei, a farmer NPC deputy from Yongjia county, Zhejiang province distributed reusable shopping bags and hankerchiefs to other deputies, which he also did at last year's sessions.

The country's ban of free plastic bags has not worked so well yet and the 3,200 basket he gave as gifts this year might give the issue more publicity, he said.

He has promoted ecological conservation for the last eight years and has invested over 30,000 yuan turning his hometown, Zhu'an, into China's first plastic bag-free village.

There were several other small green efforts at the annual sessions. Lights were turned off in unused rooms, deputies from Anhui used environmental pencils made from recycled newspaper and many NPC and CPPCC members opted for porcelain cups rather than bottled water.

China's economic stimulus plans benefit environment

March 10 (Xinhua News) -- BEIJING -- A message from the ongoing annual session of the National People's Congress (NPC), or the parliament, tells saving energy and protecting environment is a big government agenda, though keeping a "steady and relatively fast" economic growth is a paramount task amid the global economic crisis.

China approved a massive 4-trillion yuan ($586 billion) two-year investment plan last November to curb economic downturn, but this precludes boosting economic growth at the cost of environment.

The 4-trillion yuan spending list also included a 210 billion yuan investment in environmental protection and energy conservation, said Zhang Ping, Minister of the National Development and Reform Commission, the country's top economic planner at a press conference during the NPC session.

In the government report by Premier Wen Jiabao during the annual session contents concerning environmental protection were obviously available.

He said the country is facing problems such as severe environmental pollution and high energy-and- resources intensity, but government policies would not miss environment.

Some hard facts: China's seven major water systems, including the Yangtze and Yellow rivers, were "mildly" polluted; more than half the 500 cities and counties monitored reported cases of acid rain, according to the annual report on environment for 2007 by the Environmental Monitoring of China under the Ministry of Environmental Protection.

And China is a major carbon emitter, with about 19 percent of the global emissions of CO_2, according to a World Energy Council report published in 2008.

While preventing the already cooling economy from further sliding would be the top task of the government this year, Wen said China would continue its drive toward energy conservation, emissions reduction, and environmental protection.

This "Green" determination has also been boosted by the country's achievements in its environmental initiatives as figures show China's energy consumption per unit of GDP dropped 4.59 percent in 2008, and 10.08 percent in the past three years.

Last year both chemical oxygen demand (COD), a main index of water pollution, and the total emission of sulfur dioxide, a main air pollutant, were down 4.42 percent and 5.95 percent respectively; and down by 6.61 percent and 8.95 percent for the past three years, said Wen at the NPC's annual session.

But more efforts must be made before China could reach its goal of reducing its energy intensity by 20 percent and major pollutants including COD and sulfur dioxide by 10 percent before 2010, according to the country's 11th Five Year Programs (2006-10), a guideline for the country's economic and social developments.

"Saving energy and reducing emissions is such a significant measure in promoting scientific development and building a harmonious society," said Huang Huahua, an NPC deputy from the southern Guangdong Province.

But analysts also admit great pressure in realizing the reduction target as companies are less likely to invest in green facilities amid the financial pains. It also presents a test to the government to balance growth with industrial restructuring and upgrading.

"The 210 billion yuan spending in energy conservation and environmental protection shows the government is deeply concerned about the issue," said Zhang Boju, an environmentalist with the Beijing-based NGO Friends of Nature.

But he said the cause of environmental protection goes beyond money.

"It's most important that the policies be properly and efficiently implemented top-down," indicating concerns for environment while initiating some large infrastructure building projects might be diluted at local levels.

"The 4 trillion yuan is a massive spending that will bring about massive changes. Any big project without a sound environmental evaluation and strict regulation would likely cause irreversible consequences," Zhang Boju said.

He also said the best policy, environment-wise, would be precautions against possible pollution instead of throwing money to repair the damages.

Wen said the government will continue energy conservation in the three key areas of industry, transportation and construction. It will also speed up the construction of 10 key energy conservation projects, such as upgrading coal-burning furnaces, green lighting, and energy conservation in government organizations.

The country will accelerate the development of clean energy, such as nuclear, wind and solar power, said the premier.

In fighting the downturn, the country also issued a series of support packages for 10 industries since January, including the steel and auto sectors.

"These packages are not only intended to offset the current economic slowdown but would promote industrial restructuring and upgrading. The plans reflected public concerns and the effort to protect the environment," said NDRC vice minister Liu Tienan at a February press conference while elaborating on the support packages for the 10 industries.

Under the packages, blast furnaces with capacity of only above 1,000 cubic meters would be allowed, while those under 400 would be banned from operating in the steel industry, said Chu Xueliang, an analyst with China Jianyin Investment Securities.

Chu said about 100 million industrial capacity in the steel sector could be eliminated due to the raised standards.

"There would be mandatory, clear regulations for the elimination of such capacities," said Zhu Hongren, director of the Department of Operations Monitoring and Coordination under the Ministry of Industry and Information Technology at the joint February press conference

China wants importers to cover some emission costs

March 17 (Agencies) -- Countries that buy Chinese goods should be held responsible for the carbon dioxide emitted by the factories that make them in any global plan to reduce greenhouse gases, a Chinese official said on Monday.

"About 15 percent to 25 percent of China's emissions come from the products which we make for the world, which should not be taken by us," said Gao Li, director of China's Department of Climate Change under the National Development and Reform Commission.

Speaking at a forum sponsored by the Pew Center on Global Climate Change, Gao added that "this share of emission should be taken by the consumers, not the producers" and called the demand a "very important item to make (for a) fair agreement".

Gao gave no further details of his proposal, which could nevertheless be controversial as countries like the United States already fear that controlling domestic emissions will lead to sharply higher energy prices and possible job losses.

China, like the United States, did not join the 17-year-old Kyoto Protocol aimed at reducing global emissions of carbon dioxide and other pollutants linked to climate change problems.

With an economy that has been booming on its export of manufactured goods, China's greenhouse gas emissions also have been growing and are now thought to be around par with those in the United States, which has been the leading emitting nation.

China is the top source of imports into the United States, followed by Canada and Mexico.

December deadline?

Backers of a new international deal to control climate-warming emissions hope a pact is embraced in Copenhagen in December, although they acknowledge that timetable might be ambitious.

In the meantime, international interest in curbing climate change is growing, led by President Barack Obama's pledge to put the United States on a path to cut emissions to 1990 levels by 2020, with an additional 80 percent reduction by 2050.

Legislation to create a cap-and-trade system to limit businesses' emissions could begin moving through the US Congress in coming months. But enactment of such a bill might not be possible before the Copenhagen meeting. If not, environmentalists worry it could discourage other countries from signing onto a deal there.

But even without a comprehensive agreement, Eileen Claussen, president of the Pew Center on Global Climate Change, said negotiators could try to achieve a "strong interim agreement" that would set forth a framework, possibly including a range of targets for countries to reduce emissions.

Shinsuke Sugiyama, director general for global issues at Japan's Ministry of Foreign Affairs, told the Pew forum that his government views 2009 as a "make or break" year in achieving progress on a new global deal.

But noting that the Kyoto Protocol has only covered about 30 percent of global emissions because key economies did not sign on, Sugiyama warned: "My government is very much determined not to repeat what Kyodo does give us...in the sense that we were not able to involve United States of America...and other countries like China."

'Dark' Earth Hour sheds light on climate change

March 29 (Agencies) –BEIJING -- About 20 Chinese cities joined a worldwide relay on Saturday night to switch off lights of major buildings for one hour to highlight concerns about climate change while calling for actions.

Tens of thousands of Chinese either turned off lights and appliances at home or joined outdoor activities such as candle-lit dinners and star-gazing parties, to show their support.

The iconic "Bird's Nest" National Stadium and the "Water Cube" National Aquatics Center in northern Beijing, usually illuminated by floodlights, went dark completely at 8:30 p.m. local time (1230GMT).

Dozens of glitzy hotels, office buildings, shopping malls and restaurants in the capital also switched some lights off for 60 minutes.

At a hotel next to the "Bird's Nest", more than 100 officials, dignitaries and journalists gathered to witness the symbolic ceremony which unveiled the China leg of Earth Hour, the global campaign organized by the World Wide Fund for Nature (WWF).

"I hope tonight's activity will inspire everyone to make energy saving a daily habit," Chinese actress Li Bingbing, an ambassador of Earth Hour campaign in China, said at the ceremony.

Famed Chinese pianist Lang Lang also appeared in a short video clip on the popular website Youtube.com, appealing his countrymen to "turn off lights" and support climate change action.

In Shanghai, China's financial hub, floodlights to illuminate some 160buildings, including the world's third tallest TV tower "Oriental Pearl" and the 492-meter-tall World Financial Center, also went down.

Skyscrapers with glowing windows dominating the night skyline are usually considered symbols of affluence and modernization in China. But Saturday night, going dark became trendy.

"I come here just to watch the Oriental Pearl to switch off lights. It's very special tonight because it sends an environmental message to us," citizen Yang Zheying said while standing under the tower.

In many Shanghai outlets of international fast food chain KFC, people enjoyed candle-lit dinners after the restaurants dimmed lights.

KFC said in a statement earlier that more than 1,300 outlets in29 Chinese cities would participate the Earth Hour activities.

Initiated in Australia in 2007, Earth Hour is a time zone-by-time zone plan in which people around the world are encouraged to switch off their lights for 60 minutes on the last Saturday night of March to show their concern about global warming and climate change.

About 3,000 cities in more than 80 countries and regions will join this year's campaign, compared with 35 countries last year, according to the organization.

WWF official Wang Limin said in Shanghai that the campaign aimed to send out more and clearer messages to world leaders before they meet in Copenhagen in December to craft a new global pact on curbing emissions of greenhouse gases.

Fast industrialization and urbanization has made China a major emitter and the government has promised to cut the nation's energy consumption by 20 percent by the year of 2010.

In a videotaped speech last week, the United Nations Secretary General Ban Ki-moon called for a global support of Earth Hour, saying it would be a clear message for action on climate change.

As a response, college and university students in Beijing, Nanjing, Wuhan, Shanghai and Baoding geared up for innovative activities ranging from outdoor lectures, walks, to an unplugged concert.

Some 100 students gathered at the prestigious Peking University in Beijing Saturday night, offering telescopes to passer-bys for them to observe the starry sky.

"Earth Hour should talk about not only climate change, but also the importance of darkness, because light pollution in cities has seriously affect astronomical observation," Liu Boyang, a sophomore majoring in astronomy, told Xinhua.

"I don't expect too many people to heed the call (for turning off lights) tonight. But this should not be only for tonight - we must do energy saving everyday," he said.

Popular website douban.com asked its users to "log off for one hour."

Even a mimic of the Eiffel Tower in an amusement park in south China's Shenzhen City plunged into darkness before the real one in Paris goes dark eight hours later.

"Enthusiasm of the Chinese individuals and governments (to support the campaign) has been overwhelming, though this is the first year for China to hold Earth Hour activities," Dermot O'Gorman, WWF China Country Representative, told Xinhua.

"This will send an important message to the world that people in China are becoming more aware of climate change issues," he said.

But not everyone is so convinced.

Dozens of posts on youdao.com questioned whether Earth Hour was as meaningful as many said, or just a hype.

"Think about carbon emissions caused by holding this activity, "an unidentified post said, while another post questioned whether people living without electricity should get credit because they "literally go dark everyday."

"It is true that Earth Hour is just for one hour each year. One person may be small, but we can make difference if we work collectively to change behaviors," said O'Gorman, who has been working in China for four years.

"People in China become more aware of and more concerned about climate change and environmental issues. Also the country is led by a very strong leadership which is also more aware of the issues," he said.

"This is a very important message to the world," he said.

Emission tariff proposal rapped

March 20 (Reuters) -- The country's top climate change official has rejected a proposal by the United States to slap tariffs on imports from countries that do not impose costs on carbon emissions.

The idea is an excuse for trade protectionism even as China boosts efforts to tackle greenhouse gases, Xie Zhenhua, head of China's climate change and coordinating committee, said on Wednesday in Washington.

"Climate change and imposing carbon taxes on imports ... are two separate issues" and should be tackled in separate negotiating forums, he said.

Xie was responding to US Energy Secretary Steven Chu, who told a congressional hearing on Tuesday that once Washington develops a system limiting carbon emissions, the US would be at a disadvantage if other countries do not impose a cost on carbon emissions.

The tax idea was a proposal the Obama administration should evaluate, Chu told the US House of Representatives science and technology committee. He voiced hope that fast-growing developing countries such as China and India would take steps to reduce their emissions.

"I oppose using climate change as an excuse to practice trade protectionism," Xie, vice-minister of the National Development and Reform Commission (NDRC), told the Carnegie Endowment for International Peace, a Washington think tank.

US President Barack Obama is pushing Congress to develop a system that would cap carbon emissions and have companies purchase permits to release greenhouse gases. But some US lawmakers have raised concerns about how such a cap-and-trade program would hurt an economy already in recession.

Pressure is mounting on nations to seal a broader and tougher framework to replace the Kyoto Protocol on climate change in December during UN-led talks in the Danish capital of Copenhagen.

Unlike the US, China joined the protocol but is not required to cut its emissions because it is a developing country.

China's greenhouse gas emissions are now thought to be similar to levels in the US, which is the world leader.

Xie, who said he had talks with Chu and other US officials, refuted the premise that China was slow in tackling greenhouse gases emissions.

"China is not a country that does nothing," he said. "On the contrary, we have done a lot."

He listed a set of market-based measures on pricing, taxes and financial incentives the country was using to cut its emissions.

To that effect, Chinese and foreign officials and experts yesterday emphasized the measures China was taking to fight climate change.

Minister of Science and Technology Wan Gang said the focus on environmental solutions in industry would also be one way to face up to the global economic slowdown.

"The fundamental way out of the economic crisis is to find major breakthroughs in technological innovation as an important measure to create new market demand, and nurture new economic growth toward that direction," Wan said at the opening of a high-level forum for energy efficiency and emissions reduction in Beijing.

More than 200 enterprises and institutions worldwide presented their latest findings and technologies at the five-day fair.

The country will continue to push research in energy-saving and renewable energy technology, as well as implement more effective policies to support the development of an environmentally-friendly society, Wan said.

Top China think tank proposes greenhouse gas trading plan

March 25 (Agencies) - A top Chinese State think tank has proposed a global greenhouse gas trading plan to reflect the different historic emissions of rich and poor nations, reflecting deepening discussion in the central government about climate change policy.

Researchers from the State Council Development Research Center, which advises China's leaders, laid out the plan in the March issue of the Economic Research Journal, a Chinese-language publication that reached subscribers this week.

The broad scheme is far from being government policy.

But it illustrates the growing focus of decision-makers on how China should handle climate change negotiations aiming to seal a new global pact by late 2009.

The China think tank plan seeks a solution to the divide between developed nations, with high per capita accumulations of greenhouse gas emissions, and developing nations, including China, with low levels of such emissions that are set to rise in coming decades.

The answer, they write, is to set emissions rights for each country, based on its historic accumulation, and then let nations trade portions of those rights in an international market.

"If every country's emissions rights can be clearly defined and strictly protected, and a corresponding mechanism for market transactions can be established, emissions reductions will become a form of behavior that offers a return," they write.

"This will provide a powerful impetus for developing low-carbon technology and a low-carbon economy."

The think tank's proposal would draw China and other poorer countries into clearer obligations to curtail greenhouse gases in the long term. But it would give their citizens larger emissions quotas than rich countries' populations, reflecting the developing world's low historic emissions and "right to develop".

Under the current Kyoto Protocol, the UN-backed pact governing countries' climate change obligations, China and other developing economies do not shoulder caps on greenhouse gases.

The United States previously cited China's lack of caps as one reason for Washington staying out of the Protocol's obligations. President Barack Obama is pushing Congress to develop a system that would cap greenhouse gas emissions and require that companies purchase permits to release such gases.

But his administration and other Western powers will still press China, India, Brazil and other big developing nations to offer clearer commitments in the successor pact to Kyoto, which negotiators hope to settle in Copenhagen in December.

The think tank researchers say their plan would help surmount the current Protocol's shortcomings, including its "narrow coverage and lack of incentives for developing countries".

Their plan says all countries should develop an "historic account" of past emissions. That account would be used to measure whether their current emissions fall above or below appropriate levels calculated from population, accumulated emissions and total global reduction objectives.

Each country would then hold a national account projecting future annual emissions entitlements up to a set date -- the authors offer 2050 as an example. How countries keep emissions within agreed levels would then mostly be left to their governments to decide.

Countries could then "engage in international trading in greenhouse gas emissions rights", with the condition that, by the set date, they have wiped out their "emissions rights deficit".

The trading scheme would aim to cover all countries, but could begin with only the main ones, the authors say.