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General Energy Issues

China must cut energy consumption per unit of GDP by 7% annually

December 3 (China Daily) - China's think tank has said the country should cut its energy consumption per unit of GDP by 7 percent in 2009 and 2010 to achieve its goal of reducing energy intensity by around 20 percent from 2006 to 2010.

The think tank has based its forecast largely due to the slow pace of energy conservation since 2006.

In the newly published 2009 Blue Book of China's Economy, researchers from the Chinese Academy of Social Sciences said if China does not redouble or triple its efforts to lower energy consumption, the pledged target will not be achieved.

Qi Jianguo and Peng Xushu, two researchers at the Chinese Academy of Social Sciences, said that the per unit GDP energy consumption in the past three years fell 7.84 percent, with an average annual decline rate of 2.68 percent. However, to meet the goal set in the 11th Five-Year Plan, the annual average decline in the five years should be 4 percent.

Based on the performance during past three years, the saving rate has to be raised to 6.83 percent in the coming two years, 2.5 times that of the annual average in the past three years.

"This would be a tough job," said Qi Jianguo in the "Energy Saving and Emission Reduction Situation Analysis and Policy Advice" report. According to the article, the current year has seen significant progress in terms of energy conservation and emission reduction, with 3.5 percent more energy conserved than that of 2007.

Qi and Peng are of the view that China should not neglect energy conservation and emission reduction while striving to keep the economic growth rate at 9 percent.

"The country should try to balance economic development and environment, and actually the investment in environmental protection could be the driving force of our economy," they said.

Fuel tax reform an energy milestone

December 29 (China Daily) - You pay as you fill up the tank. In other words, the more you drive, the more it costs you - and the planet.

This is a simple market rule but it has taken nearly two decades for the government to pick a "proper time" to implement it amid the sharp fluctuation of global oil prices. The Chinese government has finally decided to start a fuel tax plan beginning January 1.

According to the plan, the gasoline tax will increase from 0.2 yuan to 1 yuan per liter, and go from 0.1 yuan to 0.8 yuan per liter for diesel. And six categories of tolls for road maintenance and management will be scrapped.

Taking the taxes and global oil price declines into account, the National Development and Reform Commission announced domestic fuel price cuts in mid-December. The current fuel prices in the country are based on $83.5 per barrel of crude. But the price in the international market has fallen drastically in the past few months from the record high of $147 a barrel to a four-and-a-half-year low recently of $36 a barrel.

It means the Chinese government could announce further fuel price cuts in 2009, as the goal of its fuel price reform is to let the market have its say.

In looking back at 2008, the price and tax reforms should be listed as a significant energy-related event in China.

A widespread argument is that the changes are likely to encourage car buying and rejuvenate the auto industry, which has been hit hard by the global financial crisis. And that's also good in order to maintain higher economic growth as the government has signaled its intention to prop up the sluggish auto and real estate sectors to shore up prosperity.

But please be cautious.

These policies have been rolled out under the context of low-price fuels and economic recession. But they are very likely to mislead auto buyers to use low rate loans to purchase vehicles to drive at cheaper fuel rates in a slumping economy. But when the growth picks up, they have no choice but to park the cars at home because of rising fuel bills.

When considering China's auto policy and economic stimulus plans, environmental and energy implications should also be carefully thought out. Otherwise, car owners will suffer if they want to drive and the environment will also suffer.

There are two likely reasons for these scenarios.

Clean-fuel vehicles are still far away and China is a country with a population of 1.3 billion where many are dreaming of owning a car with few, if any, environmental considerations.

Energy security

Energy supply security is a precondition of a stable economy and China's leadership knows this well.

To ensure that, National People's Congress approved the establishment of the National Energy Administration in March. The administration's head Zhang Guobao announced that China would explore more renewable energy and nuclear power options to enlarge its energy structure.

Meanwhile, it is using overseas resources to meet its manufacturing demands.

Recently, the administration said China plans to raise its total installed nuclear power generating capacity to 70 million kilowatts by 2020, 75 percent higher than the target the set in 2006.

This is an effort to raise the proportion of China's nuclear power to 5 percent of the total installed electricity generating capacity by 2020, up 1 percent from the goal set in 2006. The current installed capacity of nuclear power is only about 9 million kilowatts, or 1.3 percent of the total installed electrical generating capacity.

The installed capacity of thermal power stations already accounts for 76 percent of China's total installed generating capacity. Contributing to about 84 percent of the overall power supply, coal-based power has become a major source of carbon dioxide emissions. In 2007, China's primary energy output was estimated at 2.4 billion tons of standard coal while its consumption was about 2.7 billion tons, ranking second in the world.

In recent years, the government has rolled out a host of fiscal and tax incentives to boost the development of the alternative energy sector, including a 50-percent cut in the value-added tax for wind power plants.

The installed capacity of wind power in the nation is expected to exceed 10 million kW by the end of 2008, compared with 4.03 million kW in 2007. The increase came as the government promoted the use of renewable energy in the face of rising oil prices.

In 2007, wind power, biomass and hydropower accounted for 8.5 percent of the nation's total energy use. That figure is set to increase to 10 percent in 2010 and 15 percent in 2020.

It is laudable that China hasn't shaken its determination to explore alternative energy sources even though oil and coal prices have already plummeted recently.

Meanwhile, Chinese energy investors have been encouraged to "become bold" in acquiring stakes in overseas enterprises. That's the message from Zheng Xinli, vice-director of the Policy Research Office of the Central Committee of Communist Party of China. He suggested recently that China should use its 2-trillion-dollar foreign exchange reserves to encourage overseas mergers and acquisitions (M&As), especially in those in the energy and resources sector.

He says the foreign exchange reserve should be invested in removing the energy and resource bottlenecks that have hindered the country's development for so long. Zheng says the Chinese government should cooperate with investors, if necessary, by offering preferential loans to improve the infrastructure of the destination countries.

As an advisor directly serving China's highest leadership, Zheng's suggestions are very likely to become the central government's policy to boost overseas investment and the priorities should be exploring overseas oil, gas and other mineral resources.

Amid a world recession, many resource-exporting countries have pinned their hopes on the manufacturing-led countries. This is a mutually beneficial solution for China and the rest of the world.

Renewable energy to power city ahead

December 30 (HK edition) -- For quite some time Hainan has to import large amounts of coal, fuel and gas from outside to meet with growing scales of new projects, which puts pressure on energy supply.

The city in recent years has made progress in ecological fields though it has a long way to go from becoming a city with sound ecology.

The basic solution to the city's energy supply problem is to develop fuel cycle economy and renewable energy sources, experts agreed. The city government has decided to major in the following five fields to make Haikou an ecology-friendly city, a city that saves energy and cultivates renewable energy.

First, promoting rural reforms in the use of energy

The project summarized as one methane pool and reforms will continue in the suburbs, where methane generated at the sideline of pig raising could be turned into energy source for growing fruits, vegetables or tropical crops.

As technology advances, more villages are expected to adopt a certain mode of these. Even those unfit for pig raising could use a new generation of methane-producing furnace which is an ideal replacement of firewood, coal or liquefied gas.

Second, making full use of straw sources

Haikou is rich in straws of rice, tropical crops and fruit trees. The city has forked out budgetary support for the introduction of facilities and technology to turn straws into fuel.

The city is also conducting research in making use of straw to produce gas and solid fuel and generate power.

Third, encouraging the use of solar power and geothermal energy

Focus of efforts will be on the spread of solar-power heaters. In the next decade, such heaters are expected not only in homes but also in hotels and holiday inns. The city will study and adopt norms for integrating solar power into construction process.

Haikou will also promote use of photovoltaic energy in lighting at public facilities via trial operations. Large enterprises in such fields as telecommunications, transport, power supply and petroleum will be encouraged to use photovoltaic energy for daily or emergency power supply.

Geothermal energy will be used in tourism, real estate, public health and winter sports sectors.

Fourth, improving the comprehensive use of biomass energy

Haikou has been successful in trial use of natural gas for automobiles. It is striving to be a leader in the popularization of ethanol as fuel and bio-diesel.

The city is conducting research and feasibility studies for future projects and making efforts to combine energy-oriented agriculture and ecology-friendly farming.

Fifth, building up a system for fuel cycle energy and renewable energy

Priority will be given to adoption of detailed regulations for the execution of Renewable Energy Law. Macro-planning will put the issue on high agenda and enterprises in the research and development of renewable energy will be backed up.

While raising the public awareness for renewable energy, the city will build industrial and ecological parks that actually put fuel cycle into use.

Policies will be adjusted to spur the market growth of renewable market sources and products and cut emission from large coal-burning power plants and petrochemical producers.

Nuclear cooperation prospects unclear

December 27 (China Daily) -- Chinese experts said on Friday US President-elect Barack Obama's proposal to resume exchanges with Chinese nuclear weapons laboratories would accelerate bilateral nuclear energy cooperation. However, they also said it is difficult to predict China's response.

The Washington Times reported on Thursday that Obama had said in an interview with Arms Control Today magazine that in addition to holding a strategic nuclear dialogue with China, he wants to resume "laboratory to laboratory exchanges that were terminated in the 1990s".

Zhou Shijian, a senior researcher with Tsinghua University's Center for China-US Relations Studies, said Obama's proposal would boost Sino-US cooperation on the "peaceful utilization of nuclear energy", which is the major goal of nuclear laboratory exchanges.

"Nuclear energy will replace large aircrafts to provide the greatest business opportunities between China and the US in the future," said Zhou, who witnessed the decades of uneven Sino-US negotiations on nuclear energy cooperation.

It would benefit both countries, because it would bring a substantial amount of jobs and profit to the US, while helping China update its nuclear energy facilities, Zhou said.

China plans to build four nuclear energy power plants every year until 2020, with each plant to cost an estimated 10 billion yuan, he said.

However, Fan Jishe, a senior researcher of US studies at the Chinese Academy of Social Sciences, said it is still tricky to predict China's response to Obama's proposal, as Washington's "Chinese espionage" smear during previous exchanges deeply hurt Beijing.

Beijing and Washington engaged in such exchanges in the 1990s. But these faltered in the late 1990s, as US intelligence and security officials accused China of using the program to extract classified information through question-and-answer sessions with US scientists.

This led to the case of Los Alamos National Laboratory Chinese-born American scientist Wen Ho Lee, who was accused but never convicted of passing nuclear secrets to China.

In 1999, the CIA produced an assessment claiming China obtained data on every deployed nuclear weapon. But the FBI never identified any "spy" who allegedly gave China the data.

Lee was freed in September 2000. At his plea hearing, Judge James Parker of the US District Court, New Mexico, apologized for the "unfair manner" in which he was detained.

Fan said the "lies deeply hurt" China then, so Beijing did not answer the Bush administration's calls for bilateral strategic nuclear talks.

Obama has vowed to push the US Congress to ratify the Comprehensive Nuclear Test Ban Treaty, with some reports claiming the US may ratify the treaty within two years.

Energy: Coal price may rise 10% in 2009

December 24 (China Daily) -- The coal contract price for power generation in 2009 is expected to rise about 10 percent, said a source attending the annual coal prices negotiation conference in Fuzhou, Fujian province.

The official with China Coal Transport and Distribution Association, who declined to be named, said price talks were at a stalemate, as coal miners seek higher prices while power plants hope to lower them.

"The increase in the 2009 coal contract price will not be very sharp. It will be at most equal to last year's level, which is 15 to 20 percent on average," the source said.

Coal companies at the conference want to increase next year's term prices by 4 percent to pass along their higher taxes and other rising costs. But power plants hope to cut prices by 50 yuan per ton, to ensure that they will not be pushed into losses in 2009, the Shanghai Securities News reported.

Sources said Shenhua Group, China's largest coal company, had reached an agreement with Guangdong Yudean Group Co for a 15-percent rise next year. However, Shenhua yesterday declined to comment.

"There will not be a large increase in next year's coal contract price, as China will see slowdown growth in energy demand," said Lin Boqiang, director of the China Center for Energy Economics Research at Xiamen University.

China will face a temporary energy glut because of dwindling demand in the global financial crisis, Wang Siqiang, an official with the National Energy Administration, told a forum earlier.

Each year, China's coal producers and power companies sit together to negotiate for the next year's coal prices. It has long been a bone of contention.

Electricity giants continue to insist that rising coal prices have undermined their profits. Compared with the coal prices, which are more market-oriented, the nation's electricity prices are still controlled by the government.

Profits of China's power companies this year have taken a hit due to rising coal prices and caps on power tariffs, with the coal-fired sector expected to report losses in 2008 of more than 70 billion yuan, according to Xue Jing, director of the statistics department at the China Electricity Council.

Cold coal

December 15 (China Daily) -- Chinese coal enterprises are experiencing an extraordinarily chilly winter this year as coal prices dive along with the country's demand for the fossil fuel.

According to statistics, the average coal price in China fell by 30 to 40 percent in November, compared to the middle of the year.

Coal prices at Qinhuangdao port, China's largest coal port, witnessed the sharpest fall in the year at the end of November, with steam coal over 5,500 kilocalories dropping to 570 yuan per ton on 25th of November, or 18 percent lower than that of seven days ago, according to statistics provided by Qinghuangdao Port Group.

At the same time, coal stockpiles at Qinhuangdao port were estimated at 8.6 million tons on December 7, an increase of 177,800 tons compared to November 30.

The National Energy Administration has said that China's coal stockpiles could increase substantially by the end of this year.

Last week, the National Development and Reform Commission (NDRC) announced the removal of pricing caps on coal beginning next year in order to adopt a market-oriented pricing mechanism.

Analysts predict that in the second quarter of 2009 coal prices will drop to a record low as the winter heating period ends.

Huang Shengchu, president of Beijing-based China Coal Information Institute, spoke to China Business Weekly reporter, Yu Tianyu, about how the global financial crisis is affecting China's coal industry and his predictions regarding coal prices and demand in 2009.

Huang is a China coal expert who has studied and researched the coal industry since 1982, notably coal mining, mine safety and coal bed methane.

He is deputy director of the legislative group for the Law of the People's Republic of China on the Coal Industry and the Mine Safety Law.

In 1994, Huang was employed as an expert for the UN Intergovernmental Panel on Climate Change (IPCC) by the United Nations Environment Program (UNEP).

He also serves as international project expert for the World Bank and the Asian Development Bank.

Q: Could you analyze the background and reasons of current diving coal prices in China? And how about the future trend of coal prices?

A: Actually, the fall of coal prices began in July, but they were not markedly dropping. Since late October, coal prices have been diving due to the financial crisis and the slowdown of the global economy.

In the end of November, coal prices plunged further as the price of good quality coal dropped to 400 to 500 yuan per ton compared to 1,090 yuan in early July.

Some factors have led to the drop in coal prices. First, power generation has significantly decreased. It may tumble 7 percent in

November from a year ago, following the 4 percent decline in October.

Secondly, the sluggish housing market has led to shrinking demand for steel and cement, which are two of largest coal consumers in China.

Thirdly, exports contribute to about 40 percent of China's GDP. As exports in November fell by 2.2 percent to $114.9 billion, the first monthly decline in seven years, no wonder the electricity and coal demand dropped.

Though winter heating has boosted coal demand to some extent, prices may see slight fluctuations and tend to be constant in a short-term.

However, the coal market will be gloomy after the heating period ends. Even if the coal demand can maintain the same level as it did in 2008, because of the global economic recession and shrinking consumer confidence, the domestic coal prices will maintain a sliding trend next year.

I think the coal prices in next August and May would be 20 to 30 percent lower than present coal prices.

Q: What are your predictions for coal production and demand in China next year?

A: Based on the current economic situation domestically and internationally, China's coal output in 2008 is expected to reach 2.7 billion tons.

In 2009, Chinese coal production would be 2.75 to 2.79 tons, while, with joint efforts of bailouts by various countries and the recovery of the global economy, coal production in China is likely to reach 3.02 to 3.08 tons in 2010.

Depending on the current macroeconomic conditions, I think the coal demand in 2008 will add up to 2.74 to 2.82 billion tons.

In the coming years, the economic slowdown could cause a further decrease of coal demand in the four largest coal consuming industries in China, including power generation, steel, building material and chemical industry.

But, the government's 4-trillion-yuan economic stimulus plan aimed at building more infrastructure projects would certainly boost steel and electricity demand next year.

In general, domestic coal demand is respectively estimated at 2.83 tons in 2009, and 2.96 tons in 2010.

Q: How do you see the impact of the financial crisis on China's coal industry? When will the coal industry recover from the crisis?

A: The impact is mainly on the shrinking coal demand. Now with the impact of the financial crisis looming larger in China - the closure of many export manufacturers, a lackluster real estate market and the halting of infrastructure projects - there will be significant contraction in demand for thermal coal for power generation as well as metallurgical coal for steel production.

The recovery of the coal industry in China took about three to four years in the 1997 Asian Financial Crisis.

This time, a global crisis is striking many more areas than ever before, and especially beating up the economy of many Chinese export destinations. So, the recovery will take a longer time.

Q: How do you estimate the impact of financial crisis on Chinese coal enterprises?

A: The winter for China's coal manufacturers has just come. I believe they will experience a worse chill next spring.

China's total coal production capacity is estimated to be about 3 billion tons per year, a bit higher than its demand.

The coal producers can only count on the government's 4-trillion-yuan economic stimulus plan to initiate more infrastructure projects, which will boost steel and electricity demand.

Due to the gloomy market, larger coal producers can adjust their output or product structures, but the financial crisis would force some small ones to exit.

The financial crisis is actually an opportunity for Chinese coal enterprises to utilize this time to conduct internal reforms and also upgrade their technology to boost competitiveness.

In general, I believe Chinese coal producers have improved their resilience levels after the Asian financial crisis of 1997 and would be able to weather the current crisis.

Q: What do you suggest that government should do to help Chinese coal industry overcome this tough period?

A: Although the market-orientated pricing mechanism is the direction of reform in the coal industry, the government's macro-control and guidance to coal production are still crucial and needed.

The government also should further improve the rules for signing coal purchase and sale contracts in an effort to protect the rights and interest of coal consumers and suppliers.

Besides, there are too many private small coal mines that are very difficult to manage and coordinate. During the financial crisis, it is time for the government to further close down small coal mines and rectify the market order.

Also, government needs to make efforts to improve its coal pricing mechanism and set up a coal price index.

China currently hasn't got such an index to guide the investment in the coal industry and coal production.

Such a barometer is needed in order to prevent blind production of some coal enterprises, and also to standardize market orders.

Fueling the need

December 1 (China Daily) -- The International Energy Agency (IEA) predicts the world primary energy demand will grow by 1.6 percent per year on average between 2006 and 2030 - an increase of 45 percent, and China and India are expected to account for over half of incremental energy demand to 2030.

The Paris-based adviser to 28 oil-consuming nations says in the World Energy Outlook (WEO) 2008, the latest edition of the annual IEA flagship publication, that China's oil import would reach 75 percent of its annual oil consumption by 2030.

Despite the fact that the financial crisis squashed the world oil price to nearly $55 a barrel last Tuesday, industry insiders still regard the prediction as a dangerous signal to the country's energy security.

Biofuel, one of the ways for the country to get rid of the IEA prediction, has again drawn attention.

Nobuo Tanaka, Executive Director of IEA tells China Business Weekly that the financial crisis is an appropriate time for China to develop clean energy.

Despite diving oil prices, "it is certain that while market imbalances will feed volatility, the era of cheap oil is over," Tanaka says.

"Low oil prices are a temporary phenomenon, and wouldn't impact very much on development of biomass," says Zheng Jilu, professor of Zhengzhou University.

China is abundant in biomass resources. According to statistics, in 2004, the country generated 600 million tons of straw, 1.3 billion tons of livestock and poultry waste, and more than 100 million tons of other agricultural wastes.

Most of this material can be used for biomass generation. In theory, it could produce energy roughly equal to 500 million tons of standard coal.

Chinese farmers generally recycle crop straw, grass, husk and animal dung and use it as biogas to produce fertilizer, which is organic and environmentally friendly for farming.

The country produced 750,000 tons of bio-ethanol in 2007, and it is scheduled to boost output to 5 million tons by 2010. Twenty-six million households in the country's rural areas were using methane for cooking and heating by the end of 2007, and another 5 million households will join the group this year.

China has used biogas pools in rural areas since the 1970s. The country is planning to expand utilization of biogas to 40 million households by 2010 and its annual production of biogas is expected to reach 15.5 billion cu m, equal to 11 million tons of standard coal. It is predicted that by 2020 about 70 percent of rural residents will use biogas as their daily energy source.

According to China's Mid- and Long-Term Development Program for Renewable Energy, by 2010, biomass power generation is expected to reach 5.5 GW. Liquid biofuel will be over 10 million tons and solid biofuel will exceed 50 million tons.

By then, China's biomass is expected to account for 4 percent of total consumption of primary energy.

During the period of 11th Five Year Plan (2006-2010), the country is focusing on development of non-grain biomass, especially encouraging cassava as a major material and at the same time developing sweet sorghum and cellulose.

It plans to form a material supply system component with cassava from southern China, sweet potato from middle and southwestern regions, corn and sweet sorghum from northeastern regions and sweet potato and sweet sorghum from northern and eastern regions.

There are also more than 5.4 million hectares of barren mountains and land in China and about 20 percent of them can be used to grow plants for energy generation. It is estimated to produce energy equivalent to 100 million tons of standard coal.

However, with the rapid development of biomass the world is facing insufficient resources. The National Development and Reform Commission (NDRC) halted the corn-to-ethanol program in 2007.

Chris de Lavigne, vice-president at NRG corporate advisor Frost and Sullivan, says the world's population is probably to exceed 10 billion by 2050, and the energy consumption will soar by 76 percent by 2030.

He says the material supply strain would be worse in the future.

"In order to continue supporting biomass, different countries take various measures. In the US, the government subsidies for biomass were $10 billion. In Brazil, they can expand planting areas to ensure material supply. But for many countries, it is not very possible," he says.

Lavigne says: "I think it is the right decision not to allow grain to be involved in biomass production and to continue to seek alternatives."

In the mid- 1990s China became a net importer of oil and at the same time the over-production of grain led to an overstock. Biomass could be a good way to use a huge amount of surplus grain.

"Development of biomass not only helps meet energy demands, it is also significant to economies in rural areas," says Zhou Fengqi, former director of the Energy Research Institute under the NDRC.

"The government should take the lead," Zhou says, "China has introduced some favorable policies including tax preference and providing special funds, however, it is still not enough and the policy system should be further improved."

Automobile and Transportation

Alternative wheels

December 15 (China Daily) -- As the impact of global warming accelerates, international automakers are allocating more resources to develop environmental friendly green cars, aimed at reducing carbon dioxide emissions.

While some globally renowned vehicles makers, such as Volkswagen AG, General Motor and Toyota Motor, have already unveiled their new energy hybrid cars, a few automakers in the mainland are also taking a step onto the battlefield.

Shanghai-based SAIC Motor, one of the top three automakers in the mainland, has announced it's setting up a venture with its parent Shanghai Automotive Industry to invest 2 billion yuan in developing hybrid and electric car technology in the city. The hybrid cars will be powered by gasoline or diesel together with electricity.

The Shanghai-based automaker will own 10 percent of the venture, while its parent will hold the remaining 90 percent shares, according to its statement to the Shanghai Stock Exchange late last month.

Electric vehicle maker and the largest manufacturer of rechargeable batteries on the mainland, BYD Auto has also signed a strategic

partnership with MidAmerican Energy, a subsidiary of Warren Buffett's Berkshire Hathaway, in September. The partnership is expected to enhance BYD's development of green cars and further promote the company's electric vehicles to the North American market, said Chairman of BYD Wang Chuanfu in a recent press conference.

"Developing our electric vehicles requires a lot of energy, which MidAmerican Energy can supply us in the future," Wang says.

Sales of automobiles currently account for 30 percent of the batteries maker's total turnover and Wang says BYD's development and promotion of automobiles will further speed up after MidAmerican has joined in.

BYD has proposed launching petroleum and electric hybrid vehicles by the end of 2008, while the company says its first all-electric vehicles will be unveiled in the mainland by the end of 2009.

The company originally planned to try importing its electric vehicles in the US by 2010, and now says it will begin launching the clean energy cars in the American market in 2011. Wang, however, expects the partnership with MidAmerican will help to speed up the schedule of entering the North American market.

Conita Hung, head of research at Delta Asia Securities, says the strategy and idea of developing green cars in the mainland are a sound long-term perspective, yet the development is not significant at the moment.

"The 4-trillion stimulus package by the central government may just have a small impact on the overall automobile industry, as cars are not primary consumer goods," Hung says, adding that the global financial turmoil may have trimmed the assets of some people in the mainland, which inevitably drag car sales.

However, Hung says the general automobile industry in the mainland has recently showed some improvement, thanks to the falling prices of commodities such as crude oil and steel.

"Car sales will be further boosted, if the central government implements the fuel tax to substitute the current toll fee system," Hung adds.

Asking if the gloomy situation in the US automotive industry will take a toll on the overseas expansion of the mainland green car markers, Hung says she expects to see a short-term impact on the expansion, especially concerning how the US automakers will settle down their financial problem.

"However, in the long run, it may still depend on the development of individual mainland automobile brands," Hung says.

Kenny Tang, the head of research at Redford Asset Management, says the automobile industry in the mainland needs to rely on the domestic market to boost their earnings, as the overseas export rate of the mainland automakers remains low.

"Yet the mainland automakers still have their competitiveness, as the cars made in the mainland have much lower prices than those made in Europe or the US," Tang adds

China, US team up for green vehicles

December 12 (China Daily) -- China and the United States yesterday agreed to collaborate on developing electric and hybrid vehicles in a significant boost to the "green programs" expected to reshape the automobile industry.

The collaboration comes at a time when US President-elect Barack Obama is heralding green cars as a crucial part of his energy strategy, while the Chinese government is also promoting these vehicles to cut the country's dependence on imported oil and reduce greenhouse emissions.

The agreement, signed between China's Ministry of Science and Technology and the US Department of Energy, will see the two countries collaborate on battery performance, testing and evaluation methods, standards and codes, and lifecycle analyses, according to David Rodgers, deputy assistant secretary of the US Department of Energy.

The US auto industry is being retooled for low-carbon-emission automobiles, either plug-in hybrids or pure battery-operated vehicles as Obama has called for an "end to the age of oil in our time" and hopes to see one million hybrid cars on the road by 2015.

China has also laid out an ambitious blueprint. Wan Gang, minister of Science and Technology, said earlier last month China plans to put 60,000 new-energy vehicles for trial runs in 11 cities by 2012 for public transportation, public services & facilities and postal services.

China currently imports nearly half of the oil required in the country. A recent McKinsey report has said the country is likely to double its oil imports by 2030 if the current growth rates continue. By promoting electric cars, the imports could be cut by around a quarter, it said.

The Sino-US collaboration could benefit some Chinese companies such as BYD Co, which have been aggressively developing green cars.

Chinese battery companies have been providing advanced lithium battery packages for testing at the national laboratory near Chicago in the US, said Rodgers.

BYD Co, the world's biggest maker of mobile-phone batteries, plans to sell hybrid cars in the US by 2010.

China's vehicle imports rise 40% in first 10 months

December 4 (China Daily) -- China imported 342,200 units of vehicles in the first 10 months of this year, up 39.68 percent year-on-year, and 28,000 units more than the whole of 2007, according to figures released by the Customs on Wednesday.

Imports in the sport utility vehicle (SUV) sector have witnessed a year-on-year increase of 62.45 percent to 179,900 units by October, and the country imported 127,500 units of sedans and 20,800 units of mini-buses in the first 10 months, increasing 16.9 percent and 40.41 percent respectively year-on-year. The three types of vehicles constituted 95.91 percent of vehicle imports in the country.

The imported rigid vehicles accounted for 4 percent of the China's auto market in terms of quantity, and 15 percent in terms of value.

Judging from the overall market, there were 5.64 million passenger vehicles sold in China in the first 10 months, growing 11.07 percent from the same period last year. Sales volume of sedans amounted to about 4.2 million units, up 10.40 percent, while the figure of multi-purpose vehicles (MPVs) fell to 169,000, down 7.67 percent.

In the same ten-month period, sales volume of SUVs increased by 31.58 percent over the previous year to 371,800 units, and crossover vehicles saw an increase of 11.3 percent year-on-year to 902,100 units.

The SUV sector is a bright spot in China's gloomy auto market, as consumers rushed to the dealerships in August, one month before the revised auto consumption tax took effect. In the same month, China saw its the first monthly auto sales decline in two years, with passenger car sales down 6.24 percent.

China to run 30,000 'clean' vehicles by 2012

December 12 (Xinhua) -- There will be 30,000 clean-energy vehicles in China by 2012, an official with the Ministry of Science and Technology said on Friday.

The ministry was promoting a project to put 5,000 hybrid buses, 20,000 hybrid taxis and 5,000 electric vehicles on the streets in 10 cities by 2012, said Zhan Zhihong, deputy director-general of the ministry's Department of High and New Technology Development and Industrialization.

Zhang said the project would save 780 million liters of gasoline and diesel oil and avoid the generation of 2.3 million tons of carbon dioxide.

He said the ministry had sent officials to Beijing, Shanghai, Shenzhen, Chongqing and Anhui province to choose the cities for the vehicles.

The ministry did not specify what companies would make these vehicles but suggested that they would use domestic technology.

China approved the Kyoto Protocol in 2002, an international treaty produced under the UN Framework Convention on Climate Change, intended to reduce global greenhouse gas emission.

China, a major oil-using economy, has conducted many tests of clean-energy vehicles in Shanghai, Chongqing, Shenzhen, Wuhan and Dalian.

During the Beijing Olympics this summer, about 500 hybrid or electric vehicles were used by the organizers for transport service.

Polluting cars to be phased out

December 31 (China Daily) --- A slew of subsidies have been introduced to promote the use of low-emission vehicles in Beijing and phase out heavy polluting ones, a senior municipal official said Tuesrday.

Speaking at a press conference, Du Shaozhong, deputy director of the environmental protection bureau, said that from tomorrow, all yellow-label cars will be prohibited from driving within the 5th Ring Road, and from Oct 1, they will be banned within the 6th Ring Road.

Thanks to the measures introduced during the Olympics, Beijing's blue sky rate rose by 7 percent this year, he said.

Beijing has 353,800 yellow-label vehicles, which account for just 10 percent of the total number of motor vehicles but 50 percent of emissions, he said.

Yellow-label vehicles are those that do not meet the Euro I emission standard, which was adopted in China in 1992.

"The new subsidies are designed to encourage people to stop using heavy polluting vehicles," Du said.

From tomorrow until the end of next year, owners of yellow-label vehicles will be given up to 25,000 yuan ($3,700) as a reward if they stop using their vehicles.

And drivers will be subsidized if they purchase environmentally friendly ones, he said.

Violators will not be fined during a three-month reprieve period, he added.

"Generally speaking, the earlier people switch their vehicles the more money they will get," Du said.

"The elimination of yellow-label cars is key to improving the air quality in Beijing."

An anonymous worker at the Beijing Chaoyang District Construction Group said the firm has several yellow-label cars, but they have not been used since September.

"It is good news that we will get the subsidy. I guarantee we will buy eco-friendly cars in the future," she said.

"Also, high-emission cars cost a lot in fuel, so it will be cheaper to run energy-saving ones."

Ren Lihong from the Chinese Research Academy of Environmental Science said eliminating high-emission vehicles will help improve air quality in Beijing.

"Such cars are a major producer of particulate matter, so the air will be better if they are eliminated, obviously" she said.

BYD zooms past Toyota, GM in electric car race

December 16(China Daily) -- Chinese automaker BYD Co yesterday launched the first commercial dual-mode electric car in the world, giving it an edge in the green car race over other rivals like Toyota Motors and General Motors Corp.

The new car, known as the F3DM equipped with both pure and hybrid electric driving systems, is priced at 149,800 yuan.

Toyota and GM, the two other global competitors in the electric car market, had planned to launch similar models in 2010 and 2011 respectively.

The launch of F3DM comes at a time when China is encouraging domestic companies to develop environment-friendly cars to both curb oil imports and cut carbon emissions.

Privately-held BYD, based in Shenzhen, started out as a maker of rechargeable batteries and

has grown into a major player in the hybrid car market.

Its aggressiveness in developing green cars caught global attention after MidAmerican Energy Holdings Co, a unit of Warren Buffett's Berkshire Hathaway Inc, bought a 9.9 percent stake in BYD for HK$1.8 billion in late September amid the financial crisis in the United States.

Wang Chuanfu, president of the Hong Kong-listed BYD, said the firm's expertise in batteries, especially the invention of Fe Battery is essential to the commercialization of electric cars.

"We plan to launch a pure electric car at the end of 2009," he said.

Lian Yubo, vice-president and chief engineer of BYD, said the Fe battery, which is highly safe and cheap, could support a range of 100 km for each charge of electricity, compared with 25 km of the industrial competitors.

The new car's total range could reach 500 km per charge of gasoline and electricity, which could facilitate the users to travel short distance powered by electricity and long distance powered by gasoline, he added.

Besides special charging stations, which could charge the car to 50 percent in 10 minutes, F3DM could also be charged with electricity outlets. It takes about nine hours to charge the car to full level.

Lian said the production capacity for the new electric car could reach 10,000 a month and it would share the same production platform as that of gasoline-fuelled vehicles.

The Shenzhen Municipal Government and China Construction Bank signed letters of intent with BYD to purchase the new electric cars shortly after a launching ceremony in Shenzhen.

BYD had planned to sell the electric vehicles in the United States in 2010, but Wang yesterday told reporters that it will delay it until 2011, without giving reasons, according to a Reuters report.

Shanghai toll roads go electronic

December 4(China Daily) -- SHANGHAI -- People traveling by road between Shanghai and four eastern provinces will soon be able to pay toll fees electronically.

"By the end of this month, a standard electronic toll collection (ETC) system will be installed at all toll gates in Shanghai and Jiangsu province. The system will identify a registered vehicle and debit the fee to its owner," Zhang Yunjie, a member of the Shanghai urban and rural construction and transportation committee, said on Wednesday at a press conference.

The system will soon be extended to Zhejiang, Jiangxi and Anhui provinces.

It will ease the flow of traffic that at present builds up at manual toll gates.

The 634-km highway in Shanghai with 96 toll gates, handles about 520,000 vehicles a day, including 120,000 to Jiangsu province and 70,000 to Zhejiang province.

Each has a capacity to handle 3,200 vehicles an hour, but during rush hours they must deal with 3,300 vehicles, Zhang said.

It now takes about 20 seconds to check a car through a toll gate. The new system will reduce it to three seconds.

There are more than 2.6 million vehicles in Shanghai and the growth rate is 10 percent a year.

"It is necessary to implement the ETC system as soon as possible as highway traffic is going to get worse in future," Zhang said.

Shanghai began working on plan to develop an ETC system in early 2006.

As an experiment, the ETC system was installed at a few toll gates in the city and have proved a success. Vehicles, wishing to be tolled electronically, need to install an on-board unit (OBU).

From Dec 20, OBUs will be available at about 30 service outlets costing between 300 and 400 yuan.

"We hope that in four years, there will be at least 300,000 vehicles using the system," Zhang said.

Last year, the central government required the Yangtze Delta region to implement a uniform ETC system in an attempt to speed up the process of economically connecting the region.

Oil and gas

As China's economy brakes, oil demands goes in reserve

December 12 (Reuters) – BEIJING -- China's once insatiable appetite for oil has choked.

An abrupt economic slowdown has corroded the machinery of China's economy, while stubbornly high fuel prices have forced drivers off the road. Crude imports are falling, fuel exports have resumed and once flat-out refiners are shutting down.

Demand from the world's second biggest consumer of oil after the United States, one of the main catalysts that launched oil's rally six years ago, likely contracted for the first time in three years last month, data due next week is expected to show.

Analysts say that is not an anomaly. A full-year decline in consumption may loom next year, even if the economy continues to expand at 8 percent or more as expected.

"The bottom line: China's demand growth is expected to be rather dormant for the coming quarters as it battles both global and domestic economic slowdowns," said independent analyst Paul Ting, who estimates demand fell 1.2 percent year-on-year last month.

Data on refinery processing due from the National Bureau of Statistics on Monday is expected to show reduced production rates last month as weak end-user demand left fuel inventories swollen, months after a pre-Olympic stockbuilding binge.

A Reuters survey of 12 top Chinese refineries found they planned to cut production further in December to the lowest for 20 months; top refiner Sinopec has said it will cut crude imports by one tenth in the fourth quarter.

Separate figures expected from the customs office should confirm earlier Reuters estimates that China skipped diesel and gasoline imports in November, the same month last year in which it was starting to rev up a sustained buying spree.

The International Energy Agency affirmed this week its forecast for China's oil demand to rise by 3.5 percent in 2009, slowing from an estimated 5.3 percent this year, although it warned that further downgrades were possible.

OLYMPIC HANGOVER

Contracting Western demand has already triggered a $100 fall in oil prices, and analysts say crude could slide as low as $30 as the crisis spreads, doing more damage to emerging economies that were once thought partly immune from Western woes.

China's economy only began sputtering noticeably after the Olympics, just as refiners began to think about offloading the fuel the government had told them to hoard ahead of the Games.

Since then economic growth expectations have screeched into single digits and analysts at Goldman Sachs say oil demand growth could be "on the cusp of a sharp deceleration," with November's anemic crude oil imports pointing the way down.

"On net, we expect Chinese demand to decline by 200,000 thousand barrels per day in 2009," Goldman said in a report on Friday, a far shallower decline than in the United States or Japan but an abrupt turnaround for a country that has contributed a third of the global rise in oil demand since 2003.

Even stockbuilding, often blamed for inflating apparent demand in the past, does not seem to be aiding the figures

China's crude oil imports slacken in '08

December 25 (China Daily) -- China's crude oil imports are expected to register a stagnant year-

on-year growth of 1.2 percent in 2008, surprising some market observers who thought the government would take advantage of low world oil prices to increase reserves.

China National Petroleum Corporation, China's largest oil company, published the estimate on its website Wednesday, saying China will import 189 million tons of crude oil in 2008, up 1.2 percent from 2007.

That growth rate is down sharply from 14.7 percent in 2007 and 14.5 percent in 2006. The global price of oil has plummeted from July's $147 per barrel to this month's average of $40 per barrel.

China imported 164.5 million tons of crude oil as of the end of November, up 9.5 percent year-on-year, according to China Customs. The growth rate during the first 10 months this year stood at 10.6 percent.

However, China only imported 13.36 million tons of crude oil in November, down 1.86 percent year-on-year. And compared with October, the amount decreased by 17.3 percent.

The trend, according to analysts, is likely to continue into the middle of next year.

Guo Haitao, assistant director of Research Center for Energy Strategy, said ample crude oil reserves and sluggish oil consumption have spared little room for further import growth in spite of the low prices.

"China's oil demand is still on the downward cycle, and the first two quarters of 2009 are the hardest time," said Guo. "This is because oil demand reflects economic performance."

According to China Association of Oil and Chemical Industry, the growth rate of China's oil consumption slowed from 6.1 percent for January-October to 5.8 percent for January-November over the previous year.

Official statistics show China processed 27.27 million tons of crude oil in November, down 2.3 percent from the previous year.

Energy analysts with CBI, a Beijing-based market research agency, said industrial diesel demand nationwide was down 20 percent to 30 percent so far this year as many smaller factories have closed.

CBI analysts said PetroChina planned to process some 10.05 million tons of crude in December, 800,000 tons less than in November, and Sinopec planned to refine 12.2 million tons, down 1.32 million tons.

China cuts gasoline, diesel prices

December 19 (China Daily) -- The retail price of gasoline has been cut by 0.91 yuan (13 US cents) per liter, and diesel by 1.08 yuan, as of midnight, the country's top economic planner announced yesterday.

But the National Development and Reform Commission did not say how the reductions would affect the range of prices for various grades of fuel or in different parts of the country.

For example, the top grade of gasoline in Beijing cost 6.78 yuan per liter yesterday.

The reduction in retail prices follows a government announcement yesterday that it would cut factory gate prices for gasoline, diesel and jet fuel from today, and at the same time levy a long-awaited fuel consumption tax from Jan 1 amid a sharp slump in global oil prices.

The price of gasoline is cut to 5,580 yuan ($817) from 6,480 yuan per ton, and diesel to 4,970 yuan from 6,070 yuan per ton. The price of jet fuel is lowered by nearly a third to 5,050 yuan from 7,450 yuan per ton.

The fuel consumption tax on gasoline will increase from 0.2 yuan to 1 yuan per liter, and on diesel from 0.1 yuan to 0.8 yuan per liter.

Starting Jan 1, six categories of tolls for road and waterway maintenance and management will be scrapped.

The draft of the fuel tax reform was made public earlier this month to solicit public opinion, and the details released by the NDRC yesterday were the same as in the draft.

The reform is meant to reflect a price on road use by shifting the financial burden to those who drive more.

Since the 1990s, the government has been considering levying an oil consumption tax and

abolishing various fees on roads and waterways to bring refined oil product prices in line with international standards.

Before the price cut, fuel prices in the country were based on $83.5 a barrel of crude. But the price in the international market has fallen drastically in the past few months.

Oil fell to a four-and-a-half-year low yesterday in electronic trading on the New York Mercantile Exchange. The January contract sank as low as $39.19 a barrel - down sharply from a peak of nearly $150 in mid-July.

Analysts said the changes are likely to encourage car buying and rejuvenate the auto industry, which has been hit hard by the global financial crisis.

Lin Boqiang, an energy professor at Xiamen University, described the reform as the-more-you-drive-the-more-you-pay scheme.

But modestly lower fuel prices are unlikely to do much to boost oil demand, which shrank last month for the first time in almost three years, as the economy takes a bigger-than-expected hit from the global financial crisis.

"The price cuts and reforms will support oil demand in China but the impact of the financial crisis on the country may be more than we expected a few months ago," said Ehsan Ul-Haq, head of research at JBC Energy in Vienna.

China to produce 189m tons of crude oil in 2008

December 28 (Xinhua) -- China is forecast to produce 189 million tons of crude oil in 2008, a growth of 1.61 percent over the 186 million tons last year, according to a recent report released by the nation's leading oil producer, PetroChina.

The production would rank the nation fifth among all the oil producing countries around the world.

The report said China had verified oil deposits of 20.7 billion tons over the past 30 years.

In the three decades, Daqing Oilfield in northeastern China pumped out 1.576 billion tons of crude oil, or more than 40 percent of China's total onshore crude output for the period. It kept annual crude oil output at more than 50 million tons for 27 consecutive years.

Shengli Oilfield on the eastern coast produced 805 million tons of crude in the 30 years, or more than 20 percent of the onshore crude output nationwide for the period. In 2007, it continued to maintain annual crude production at 27.7 million tons.

The report said China's annual natural gas output increased from 13.9 billion cubic meters in 1978 to 69.8 billion cu m in 2007. This year the production would reach 76 billion cu m, the report predicted.

A total of 5.7 trillion cu m of natural gas deposits were verified in the 30 years, the report added.

In recent three years, China's natural gas output kept increasing at an annual pace of more than 17 percent on average, much higher than the world average of four percent.

China signs Burma gas deal 30 years supply

December 27 (Asian energy) -- CNPC said in a press release that it signed an agreement with Myanmar Oil and Gas Enterprise, South Korea's Daewoo International, India’s Oil & Natural Gas Corp Videsh Limited and Gail (India) Limited in Rangoon on December 24.

The signing guarantees that energy-hungry China can fill a portion of its energy demand for nature gas from Burma’s offshore Blocks A-1 and A-3 in the Bay of Bengal for at least 30 years.

In the two offshore fields, South Korea’s Daewoo International Corp owns a 51 percent share; Myamar Oil & Gas Enterprise, 15 percent; India’s Oil & Natural Gas Corp, 17 percent; Gail, 8.5 percent; and Korea Gas, 8.5 percent.

At the end of 2007, Burma had an estimated 21.19 trillion cubic feet of nature gas reserves.

“Under the agreement, which cements a preliminary deal reached in June, pipelines will be constructed to export natural gas from

Myanmar [Burma] to China's Southwest provinces," CNPC said.

"Myanmar [Burma] will also be able to tap the pipeline running across its territory to promote economic development once the gas starts flowing, which is expected to happen in 2013."

Analysts note that China had been competing with India, Thailand, South Korea and Japan for Burma's nature gas.

Meanwhile, Burma's state-run The New Light of Myanmar reported on Friday that Maj-Gen Htay Oo, the Burmese Minister for Agriculture and Irrigation, met with the new chairman of Daewoo International Corp, Jae Yong Kin, in Rangoon on December 25. Htay Oo is also secretary-general of the Burmese junta's mass organization Union Solidarity and Development Association.

In early 2009, China is scheduled to build oil and gas pipelines from Kyaukpyu, a port on the Bay of Bengal, to its southwest Yunnan Province. China and Burma agreed to the US $2.5 billion pipeline project in November.

"The long-awaited China-Myanmar [Burma] pipeline is expected to provide an alternative route for China's crude imports from the Middle East and Africa and ease the country's worries of its over-dependence on energy transportation through the Strait of Malacca," China Daily reported on November 19.

Analysts say China's oil and gas pipelines through Burma to Yunnan Province and the up-grading of the Kyaukpyu Port is part of China's two-ocean strategy in geopolitics, involving the extension of its influence in both the Pacific and India oceans.

"An outlet on the Indian Ocean would add a new dimension to China's spatial relations with the world," said Voon Phin Keong, director of the Centre for Malaysian Chinese Studies, in a working paper in April. "It would enable China to overcome its 'single-ocean strategy' and to realize what would constitute a highly significant plan for a 'two-ocean strategy'."

The move reduces China's dependence on the Straits of Malacca and its exposure to potential risks, the scholar added.

Apart from China, Thailand is also a major buyer of Burma's nature gas, purchasing at least US $2.7 billion in 2007.

CNPC lines up five new oil, gas projects

December 23 (China Daily) -- China National Petroleum Corporation (CNPC) yesterday said it had approved five new projects, which include oil and gas pipelines, oil refinery and chemical production.

The new projects involving huge investments were approved at a company conference on Dec 19, CNPC said on its website yesterday. It did not disclose any further details on the five projects.

The company also approved its 2009-20 plan for oil pipelines, it said.

CNPC spokesmen yesterday declined to comment on the five projects and the oil pipeline plan, but said the second West-East natural gas pipeline, which is under construction currently, is not included in the five projects.

Industry insiders said the five projects could include an oil refinery in Chengdu, Sichuan province and an oil and gas pipeline linking Yunnan province and Myanmar.

The Chengdu plant, located in Pengzhou, will have an oil refining capacity of 10 million tons per year and ethylene production capacity of 800,000 tons per year.

The investment in this project is expected to be around 10 billion yuan.

The project, which is so far the largest industrial project in Sichuan, has got the approval from the National Development and Reform Commission (NDRC) this year.

The NDRC said in November that in line with the government's policy to boost domestic demand, construction of the project is expected to start within this year.

According to the Yunnan provincial government, construction of the Yunnan-Myanmar gas pipeline is expected to start in the first half of 2009. It is one of a series of large energy and

infrastructure projects Yunnan will embark on in 2009.

Earlier media reports said the project also included a $1.5 billion oil pipeline and $1.04 billion gas line. The project is expected to provide an alternative route for China's crude imports from the Middle East and Africa and ease the country's worries of its over-dependence on energy transportation through the Strait of Malacca.

CNPC General Manager Jiang Jiemin earlier said the company's investment in 2009 will focus on finding more oil and gas resources.

The company may have to adjust its investment structure due to the financial crisis, but will, however, continue to strengthen its core oil and gas business, said Jiang.

Biotech boom

December 22 (China Daily) -- TAICANG, Jiangsu: Novozymes, the world leader in bio-innovation, is looking to take advantage of the biotech boom and expand its presence in China.

In its efforts to increase capabilities in the bio-ethanol industry, especially for the development and production of enzymes used for cellulosic ethanol (a biofuel produced from wood, grasses, or the non-edible parts of plants) Novozymes has begun the latest expansion of its Hongda manufacturing facility in Taicang, making it the largest enzyme fermentation plant in the world.

It is the fourth expansion for the Suzhou Hongda Enzymes Co, situated about 50km north of Shanghai, since the facility was put into use in 1995.

Peder Holk Nielsen, executive vice-president of Novozymes A/S, says the expanded capacity will primarily focus on products for the bio-ethanol industry and signals an investment in both bio-ethanol and the expanding Chinese market.

"Even though we don't know exactly how the enzymes that could help convert agricultural waste into fuels look like yet, we are absolutely sure we will produce them at this plant," he says.

"The Taicang facility is one of Novozymes' strategic manufacturing locations, and this new expansion will enable us to accomplish more," Nielsen says.

Qian Weidong, the plant's general manager, says that in the last several years the demand for enzymes for bio-ethanol production as well as other uses has increased rapidly around the world. Since 2005 Hongda has expanded through a series of expansion projects and has more than tripled its employee numbers to about 300.

The second generation (g2) enzyme, which helps convert agricultural waste into sugar and is fermented to produce ethanol as vehicle fuel, is one of the most promising businesses for the Danish company as bio-ethanol is currently one of few viable renewable alternatives to gasoline and is capable of replacing gasoline partially or even totally for automobiles.

The United States, Brazil, and China have targets and roadmaps for the development of the bio-ethanol industry. By 2010 China aims to more than double its bio-ethanol production to cover 5 percent of the total transport fuel used with a target of 3 million tons fuel ethanol.

The first generation enzymes developed by the firm to break down corn starch into sugar and then into ethanol are widely used in America. But they have been widely blamed for pushing up global food prices, and China has suspended the use of food crops including corn in the production of bio-fuel.

The criticism doesn't apply to the g2 enzymes though, and Nielsen says that by 2030 bio-fuels can supply up to 23 percent in the global energy structure.

"We are very excited about enzymes for bio-fuels at Novozymes. It's the fuel made of natural resources. It reduces the environmental impact in transportation sector and creates economic growth in rural areas in countries that invest in bio-fuels," he says.

Presently the firm has about 100 researchers working on developing the enzymes - the largest research program at the company - and it is expected to deliver commercially feasible enzymes for cellulosic ethanol production in 2010.

"The trick is to find the right enzymes, like searching for a needle in a haystack," Nielsen

says, and the company faces competition from other industrial giants.

"It's more difficult to break down bio-mass than starch," he says. He expects that by around 2015 the g2 enzymes will cost 30 cents per gallon, much above the 4-6 cents for g1 enzymes to generate the same amount of fuel.

"But for g2, raw materials are very cheap and easily accessible," Nielsen says. China, which already becomes its second largest market outside the US, is also involved in the research of the new generation enzymes.

Novozymes uses its Beijing R&D center for testing the g2 enzymes while half of the research, focusing on the molecular work, is conducted in California, US.

Novozymes also works with State-owned food and agriculture giant China Oil and Food Corporation, more commonly known as COFCO, on a facility capable of producing bio-fuel from cassava - regarded as a "generation 1.5" bio-fuel technology.

It is also involved a pilot second-generation bio-fuel project of COFCO in Harbin in northeast China.

"We are very pleased with the strong commitment from Chinese government to develop bio-fuels from bio-mass," says Nielsen, who envisions a prosperous world because of improved bio-technology.

"That is what we call a bio-based society where farmlands not only produce food and textile fibers, but also materials today we produce through chemicals," he says.

Climate Change and Air Pollution

China's environmental protection crucial to the world

December 7 (Xinhua) -- BERLIN -- China's endeavor to enhance environmental protection, energy-saving and gas emission-cut and build a resource-conserving society is of great significance to the world, said Klaus Toepfer, former chief of the United Nations Environment Program (UNEP) in a recent interview with Xinhua.

"Such a move is in the interest of the entire world, and meets the need of the global sustainable development," he added.

ACHIEVEMENTS

"As a member of China Council for International Cooperation on Environment and Development (CCICED), I have seen the strong determination of China's leadership," said Toepfer.

"The performance of the Chinese central and regional governments during the process of urbanization also makes me believe that it has become the consensus of all the governments to protect the environment, save energy, cut greenhouse gas emission, and to build an resource-conserving society."

The expert took Shanghai as an example. "The Shanghai government is fully aware of the importance of an energy-saving and resource-efficient structure."

To make Shanghai an eco-friendly city, the municipal government has taken measures such as building more sewage processing facilities, limiting the number of cars to help ease traffic jam and improve air conditions, he said, describing them as quite impressive.

He also noted many changes in the government's policies concerning manufacturing and service industries, an indication of China's new approach to environmental protection and energy conservation.

For instance, China has given higher priority to the proper handling of carbon dioxide emission. The country has also actively been engaged in the research and development of electricity-powered cars and cars that use alternative energy.

MORE TO BE DONE

However, despite the positive results, more needs to be done in China, the former UN environment chief said.

China still needs to make tremendous efforts to tackle tough challenges such as to protect water

resources, reduce air pollution and enhance energy efficiency, he added.

Toepfer suggested that China introduce advanced new technologies on environmental protection and energy-saving from other countries, and actively participate in international cooperation projects on environmental protection and energy conservation as the country already has a strong scientific and economic capability.

On the negative impacts of of the ongoing financial crisis on environmental protection and energy conservation, Toepfer said the impacts are obvious, but only of short duration. As governments' measures to stabilize financial markets take effect, environmental protection and energy conservation will again become the world's major concern, he said.

Comply with framework to fight climate change

December 27 (Xinhua) -- POZNAN -- A Chinese minister said here on Thursday that the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol should be taken as the basic legal framework for the world to cope with climate change.

Addressing a UN high-level meeting in the central Poland city of Poznan, Xie Zhenhua, minister and vice-director of China's National Development and Reform Commission, said the UNFCCC and the Kyoto Protocol are documents reflecting global consensus, and have provided a basic legal framework for addressing climate change.

The UNFCCC, which has 192 parties and entered into force in 1994, set an overall framework for intergovernmental efforts to tackle climate change. The Kyoto Protocol, which was reached in 1997, is linked to the UNFCCC and sets binding targets for 37 industrialized countries and the European community on gas emission reductions.

"Only by sticking to the principles of the Convention and its Kyoto Protocol, working toward their full, effective and sustained implementation...can we expect to reach a fair and effective agreed outcome in Copenhagen," said Xie, head of the Chinese delegation to the climate talks.

"Any attempt to deviate from, breach or re-define the Convention, or to deny the Kyoto Protocol, or to merge the Convention process with the Kyoto Protocol process, will be detrimental, and will ultimately lead to a fruitless Copenhagen Conference," he warned.

The two-week Poznan climate talks culminated on Thursday in the high-level meeting attended by some 150 heads of state and government ministers and senior representatives.

Ministers are scheduled to discuss key elements of a shared vision on long-term cooperation action in fighting climate change, a topic still remaining in dispute.

Referring to this, Xie suggested that all concerned parties should move to turn the shared vision for long-term cooperative action into practical and concrete actions.

"In this regard, developed countries should take the lead in reducing their greenhouse gas emissions, strictly fulfill their emission reduction commitments under the Kyoto Protocol for the first commitment period, and make further deep cut of their greenhouse gas emissions by at least 25-40 percent below the 1990 level by 2020," Xie said.

Under the Kyoto Protocol, the industrialized countries are bound to cut 5 percent of emissions below the 1990 levels over the five year period of 2008-2012.

Meanwhile, Xie said the developed countries should also fulfill their commitments under the Convention and its Kyoto Protocol to support developing countries with financial resources, capacity building and technology transfer.

For their part, developing countries will also take positive and effective mitigation and adaptation measures in the context of sustainable development and with the support of developed countries, he added.

Xie arrived here on late Tuesday for the high-level meeting of the Poznan climate talks, which will conclude on Friday.

'Green' a buzzword in China in 2008

December 29 (China Daily) -- Looking back at 2008, an eventful year that witnessed a massive snow disaster, the deadly May 12 earthquake, the success of Beijing Olympics and Paralympics, and a worldwide financial tsunami, "green" was a keyword that has run through almost every major event.

Environmental protection, energy saving, climate change - all are buzzwords in media reports, government documents, commercial advertisements, and common people's daily conversations.

With the national environmental watchdog being upgraded to cabinet status, environmental protection has been given more say in shaping the country's economic development.

Under such a framework, enterprises have adopted more active measures in greening their businesses, with some taking leadership in fighting the worsening environment and global warming.

Common people's environmental awareness has also been beefed up thanks to the efforts of not-for-profit environmental protection organizations in China.

Policy trends

2008 has been a critical year for the country to realize its bold green goals written in the 11th Five-Year Plan (2006-10), which aims to reduce energy consumption per unit of GDP by 20 percent and major pollutants emissions by 10 percent from the 2005 levels by 2010.

But as the first two years, namely 2006 and 2007, saw only 2.14 and 3.16 percent reduction of chemical oxygen demand (COD) and sulfur dioxide (SO2) emissions, and the Ministry of Environmental Protection (MEP) is feeling increased pressure to beef up its environmental goals.

So at the beginning of 2008, MEP released a collection of environmentally sound economic policies, including green insurance, green security and green trade, as a follow-up of the green credit policy introduced in 2007.

With environmental officials joining hands with economic regulators to design and implement programs, the watchdog started to proactively extend its hands into the entire economic activity chain, including production, distribution, trade and consumption, instead of the long-time practice of reacting only after a pollution problem was apparent.

Just as Pan Yue, vice minister of environmental protection, who is also the initiator of the green economic policies, has pointed out, such policies encountered obstacles as a result of local protectionism and weak legal enforcement.

The former State Environmental Protection Administration's evolution into a full-fledged MEP in March has partly solved the problem by giving the environmental watchdog a strengthened administrative role.

After taking up his new position as minister of environmental protection, setting up a law enforcement system of "iron and steel" was cited as Zhou Shengxian's top priority.

The MEP's new structure was unveiled in the latter half of 2008, with three new departments added that cover environmental quality monitoring, emissions control as well as news and education.

The move suggested an emphasis on the national control of major pollutants based on more thorough research and the precise monitoring of results.

The efforts have already paid off. Tougher environmental controls have further reduced pollution in China. The latest statistics show that emissions of COD and SO2 in the first half of 2008 dropped 2.48 and 3.96 percent respectively year on year.

In the first half of the year, the MEP requested stringent environmental standards on economic projects when the country's economy appeared at risk of overheating.

Luckily, the move has been attached with equal importance in the country's financial stimulus plan when the global economic downturn started taking its toll in China as the year drew to a close.

None of the country's 4-trillion-yuan investment package will go to the energy and resource-

intensive industries or high-pollution industries, Zhang Ping, minister of the National Development and Reform Commission, has vowed.

A total of 350 billion yuan, among the investment package, will be spent on improving the ecological environment and treating pollution in 2009, with a focus on improving the rural environment.

Green CSR

Environmental protection and energy conservation have also inevitably become some of the most popular buzz words for CEOs of many international and also domestic enterprises, especially in their press conferences and interviews.

They emphasize eco-friendly approaches as a business philosophy: not only focusing on improving energy efficiency of their products, but also reducing the impacts on the environment during manufacturing.

For example, Hisense and Haier, two Chinese electrical household appliance giants, have constantly promoted their "green" televisions, air conditioners, and refrigerators. In recent years, over 50 international giants, including Wal-Mart, Carrefour, Avon and GE, have added corporate social responsibility (CSR) as one of most important clauses in their corporate cultures, requiring their cooperative enterprises to go through an examination of CSR performance before signing contracts with them.

Since 1997, more than 8,000 enterprises have been examined, and many incompetent enterprises have been disqualified as suppliers.

The action has the impact of urging local enterprises to fulfill their CSR at an international level and they are willing to cooperate with government departments in environmental efforts.

Wal-Mart China has said it will cooperate with Environmental Certification Center under Ministry of Environmental Protection on drafting green store standards.

The two parties signed a Memorandum of Understanding in Beijing, in December 2008. The system of green certifications for supermarkets would be established through spot surveys, demonstration practices and validation.

Many Chinese enterprises have realized that energy efficiency and environmental protection are not burden but profitable business. However, it is still difficult for some of them to get rid of their obsolete development mode.

As a core force for China's "green campaign" to reduce energy consumption there is still a long and tough road ahead for every Chinese enterprise.

NGOs' green efforts

About 30 years ago, environmental protection was not personal or government priority in China but whose story says average people have been able to make a difference?

Fourteen years have passed since the first Chinese environmental NGO, Friend of Nature, was set up in 1994.

To date there are 3,539 environmental NGOs fighting for bluer skies, cleaner water and a better life for every Chinese.

On Children's Day in 2008, Chen Xiaoyi, a project manager of the Women and Environment Group under the China-Canada Cleaner Production Program, gave a brilliant gift to her child and also many others.

Through the constant efforts of Chen and her colleagues, a series of green education text books for pre-school children were published to teach them to love the nature and protect the environment.

In 2004, the Beijing-based Global Village along with other five NGOs launched the 26C campaign, asking people turn the temperature of air conditioners to no lower than 26C in summer.

In 2007, the State Council issued a circular, stipulating that the temperature of all China's air-conditioned public places should be kept at no lower than 26C in summer, and no higher than 20C in winter.

Thus a public campaign became a government compulsory regulation.

Some NGOs initiated a Plastic Bag Campaign that was also adopted by the government and

since June 1, 2008 China has banned free plastic bags in stores across the country.

Due to the efforts of NGOs some of the controversial decisions by local governments have been reviewed, revised and even cancelled. In the name of the public, NGO members stand up to express people's views and protect people's rights.

Gore praises China's contribution to fighting climate change

December 13 (Xinhua) -- POZNAN -- Former US Vice President Al Gore on Friday lauded the great efforts made by China to fight climate change in recent years, while pointing out that its efforts had been largely ignored at the Poznan climate talks.

"China, once seen as a looming obstacle to world efforts to reduce CO2 emissions, has itself a green stimulus of 600 billion dollars over the next two years," said Gore, an environmentalist who shared the 2007 Nobel Peace Prize for his efforts to draw attention to global warming, at a high-level meeting of ministers here.

Gore, a guest speaker, was interrupted by all-around applause each time he spoke the word "China."

"Chinese leaders are mobilizing a national effort to introduce CO2 reduction initiatives, and have already begun the largest tree-planting program the world has ever seen," he said.

Gore expressed regret that China's efforts in coping with climate change had been largely ignored.

China has joined the global effort to find a solution to the crisis, he emphasized.

About 150 ministers from across the world are participating in the last-minute, high-level meeting of the UN climate talks in Poznan, trying to detail the key elements of a long-term goal to fight climate change and to reach consensus on launching a fund to help poor countries adapt to its adverse effects.

Gore also pointed out that the old targets for fighting global warming had become obsolete according to new scientific standards, and that 350 parts per million of CO2 should be the new standard the world must adhere to.

"Even a goal of 450 parts per million, which seems so difficult today, is inadequate," said Gore, adding that the world needs to toughen goals in addressing climate change.

On Thursday, US Senator John Kerry, widely viewed as the representative of President-elect Barack Obama, also praised China's achievements in addressing climate change on its own.

China is taking a variety of climate-friendly actions, including establishing auto emissions standards tougher than those in the United States and setting ambitious goals to improve energy efficiency, Kerry said.

In contrast to some developing countries' bold actions, several developed nations like Japan, Canada and Australia are backsliding from strengthening their commitment to fighting climate change. They are blocking the introduction of a mid-term goal of cutting 25 to 40 percent emissions over 1990 levels by 2020 in the industrialized countries.

Environment: Clear days' target met before time

December 1 (China Daily) -- Determined efforts, special measures and good weather helped Beijing achieve its annual target of 256 blue-sky days yesterday, a full month before the end of the year.

Blue sky means a day when the city's air pollution is below 100 on the air pollution index (API). The API at noon yesterday was 85.

"Counting 'blue-sky' days is a tense job, for we are always nervous whether we'll be able to achieve the target," Du Shaozhong, deputy director of the Beijing municipal environmental protection bureau, said.

The measures that helped achieve the target include the temporary arrangements made for the Olympics such as allowing vehicles with odd and even numbers to run on alternate days and shutting down polluting factories, Wang Dawei,

head of the air quality control division of the bureau, said.

The short- and long-term measures enabled Beijing to reduce pollution by more than 60 percent during the Olympics and Paralympics, Du said.

Though he warned that achieving a similar target next year would be a big challenge, he said: "Our campaign started for the Olympics, but will not end with it."

Good weather played a role in yesterday's API reading, too, Du said. The forecast for yesterday said the API would be above 140 during the day, but the weather improved late at night, heralding a clear morning.

More rain in spring and summer, frequent northerly winds in fall and an early winter are nature's blessings, Guo Hu, director of the Beijing Meteorological Center, said.

Beijing saw just 100 clear days in 1999, the year when the authorities launched their anti-pollution campaign. Thanks to their constant efforts, the number of blue-sky days last year rose to 246.

As part of the clean air program, the authorities shifted most of the high-polluting plants, including that of steel giant Shougang Group, out of the city, and replaced them with green facilities. Stricter fuel emission rules, too, were implemented, with gas stations revamped to curb petroleum vaporization.

Beijing will launch tougher air cleaning programs from January 1 by shifting more coal-burning industries out of the city and banning heavy polluting cars.

The success of the pollution control program can be maintained, environmental experts have said. "This year's success does underline that sustainable development can be achieved with the joint efforts of the government, industries and the public," said Zhang Jianyu, head of the US-based Environmental Defense Fund's China office.

Pollution caused by vehicles, which account for about 40 percent of the pollutants, have to be controlled and regional collaboration continued for better days, he said.

New regulation on drivers to curb pollution

December 26 (China Daily) - ZHUHAI --Drivers who don't switch off their vehicle engines while waiting in environmentally sensitive areas, such as residential neighborhoods or schools, will face a fine of up to 200 yuan ($29) starting May 1, local authorities said Thursday.

The revised regulations of environmental protection in Zhuhai said that drivers will be prohibited from leaving their vehicle ignitions on while waiting in residential areas, near schools, government department buildings, hospitals, public parking lots and scenic spots.

In case of violation of the new regulation, drivers may be fined anywhere between 20 yuan and 200 yuan.

The local people's congress recently passed the regulation, which is designed to maintain Zhuhai's clean air quality.

The southwestern city in the Pearl River Delta region will become the first in the mainland to impose such a fine.

The regulation, which aims to reduce noise and pollution discharged by vehicles, was introduced after the city thoroughly studied the ways air pollution is curbed in several western countries, Mao Dongxin, director of the Zhuhai environmental protection bureau, said.

Another regulation introduced yesterday stipulates that no interior decoration projects which cause noise pollution will be allowed in residential buildings from noon to 2:30 pm and 7 pm to 7 am everyday.

Violators will be fined between 200 yuan and 1,000 yuan.

Addressing a press conference yesterday, Mao urged all drivers to abide by the new rule and contribute to ensure fresher air in the city, which borders the Macao special administrative region.

"With the number of vehicles going up in recent years, gas discharges have contributed to 80 percent of the city's air pollution," Mao said, adding: "and exhaust fumes from cars, buses and lorries mainly contain nitride and oxide.

"It is of great importance to control and reduce the waste gas discharged by vehicles to ensure fresh air."

For many local residents, the new regulation is a welcome move.

Zhang Hongwei, a civil servant, said the rule can certainly help prevent and reduce air pollution in Zhuhai, although the city's air is still fresher than that of the other Pearl River Delta cities.

"But we should not wait for air pollution to first become worse to introduce new regulations to control the problem," Zhang added.

Zhuhai, a model city for environmental protection of China, has long been known for its clean environment and fresh air.

Local residents once dubbed Zhuhai's air as "so fresh that it can be canned and sold to other countries".

HK, Guangdong set air quality target

December 19 (HK edition) -- Hong Kong and Guangdong governments yesterday expressed confidence in achieving joint emissions reduction targets by 2010. The two governments will also set new targets after 2010.

Secretary for the Environment Edward Yau said this after the ninth meeting of the Hong Kong-Guangdong Joint Working Group on Sustainable Development & Environmental Protection yesterday.

In 2002, the joint working group arrived at a consensus to cut the emission of four major air pollutants, volatile organic compounds, sulphur dioxide, nitrogen oxide and particles, by 20 to 55 percent in eight years.

"We have made good progress toward the 2010 target," Yau said, pointing out that the emission of three out of four pollutants have been under control.

As for the remaining sulphur dioxide, the SAR government has set stringent emission ceiling for the two electricity companies.

Yau pointed out next year would be a critical year to review the progress in improving air quality and he looked forward to new emission reduction target after 2010.

During the meeting officials from the two governments discussed on the implementation of the joint project of transforming the Pearl River Delta (PRD) Region into a green and quality living area.

"Both parties agreed to gain support for the project in the country's 12th Five-Year Plan," Yau said.

He also added the joint working group would work with related departments and enterprises in promoting the project.

Meanwhile, over 100 Hong Kong-owned factories in the PRD region are expected to join the Cleaner Production Partnership Programme next year.

Launched in April this year, the five-year program facilitates energy saving and emission reduction by providing funds to these factories.

Around 60 to 100 factories have participated in the program.

Director-General of Guangdong Environmental Protection Bureau Li Qing admitted the financial turmoil has made it difficult for the enterprises to maintain clean environment.