

ICET MONTHLY NEWS BRIEFING



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This issue is edited by
Raining Bao rbao@icet-usa.org

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The Innovation Center for Energy and Transportation (iCET), a leading policy think-tank in the area of low-carbon development and climate change, is an independent non-profit, professional organization registered in Beijing, China and California, USA. The core mission of iCET is to mitigate climate change through the promotion of low-carbon transportation, clean energy, energy efficiency and carbon registration practices and policies in China.

Beijing Office:
Room 1904, e-Tower Building
No. C12 Guanghua Rd.
Chaoyang District, Beijing, 100020
P. R. China
Tel: 8610 65857324
Fax: 8610 65857394
Website: www.icet.org.cn
Email: info@icet.org.cn

Los Angeles Office:
592 Garfield Ave,
South Pasadena, CA 91030
U.S.A.

New York Representative Office:
126 Vanderbilt Ave.
Brooklyn, NY, 11205

iCET News Express

The “iCET News Express” section provides updates on the progress of some of our exciting programs. We hope you enjoy these updates in addition to the regular news briefing we offer.

International training curriculum on GHG accounting and verification is now open for registration / iCET 国际品牌碳管理课程现正招收报名中

The Innovation Center for Energy and Transportation (iCET) and the Greenhouse Gas Management Institute (GHGMI) have partnered to bring an international training curriculum on GHG accounting and verification to climate change practitioners throughout China.

This initiative will build on iCET’s Energy and Climate Registry (ECR) – the first voluntary and comprehensive online carbon reporting platform in China – and GHGMI’s carbon management education program – the world’s largest and most comprehensive GHG measurement, reporting, and verification course curriculum. The initiative aims to equip businesses, government agencies, nonprofit organizations, and communities throughout China with the capacity to manage GHG emissions. The partners will develop the workforce necessary for China to pursue a low carbon development pathway by working to improve the quality of Chinese greenhouse gas emissions data

The GHGMI-iCET initiative will deliver a professional development curriculum in both Chinese and English complemented by comprehensive examinations assessing competency in GHG quantification and verification in line with international standards and best practices. The partnership’s first course on Organizational GHG Accounting will commence 8 February 2012 in Beijing, China. It is now open for registration. Other courses on Project-level GHG Accounting, GHG Verification for Inventories and Projects, and GHG Information Management Systems will follow.

For more information about the course, please read the course introduction [PDF](#) or contact: Ms. Xueyu Li, Email: xyli@icet.org.cn , Tel: 010-65857324-202.

能源与交通创新中心(iCET) 与碳管理方面的国际顶尖机构美国温室气体管理研究院(GHGMI) 共同合作，面向应对气候变化的从业人员，将于 2012 年 2 月起在中国陆续推出温室气体核算和审核的国际课程。该培训项目主要是以 GHGMI 的碳管理培训课程和 iCET 的能效与碳注册系统 (ECR) 项目为基础。GHGMI 的碳管理培训项目是现今世界最权威及最全面的关于温室气体测量、报告和审核的系列课程。而 iCET 的能效与碳注册系统是中国建立的第一个自愿的在线碳报告平台。该培训项目的推出将为中国低碳发展路径的实践提供专业人力资源，提高中国温室气体数据的质量。

GHGMI-iCET 的联合培训项目将提供与国际标准和最佳实践接轨的、关于碳的量化及审核等方面的中英文专业课程，并提供综合考试认证，以评价其专业能力。培训后通过考试者，将获得由 GHGMI 和 iCET 颁发的碳核算能力证书。首个开展的课程是关于组织层面温室气体核算的课程，将于 2012 年 2 月 8 日至 10 日在北京举办。组织层面碳核算培训

包括碳核算概况，商业应用，组织边界划分，运营边界划分，排放追踪和基准年的确定方法，数据收集和计算，清单质量管理，清单审核，基于清单的减排战略等一系列内容。课程将由北美 CSA 标准集团温室气体计量师、资深项目管理专家朱寿庆先生主持，政府官员、行业专家和学者授课。该课程侧重理论与实践的结合，将让学员充分掌握碳核算的方法以及核算过程中对每个细节的把握和处理。现课程正接受报名中。

如需了解该课程详细信息，请点击[此处](#)下载 PDF 文件，或接洽：李雪玉女士，能源与交通创新中心 ECR 项目官员，

Email: xyli@icet.org.cn ; 电话：010-65857324-202

General Energy Issues

China faces greater pressure to ensure energy supply in 2012: energy chief

BEIJING, Jan. 10 (Xinhua) -- China's energy chief said here Tuesday that the country is under greater pressure to ensure energy supply this year as both demand and international competition for resources grows.

Liu Tienan, head of the National Energy Administration (NEA), made the remarks when speaking at a national energy work conference.

"It is always worrisome to have to sustain supply of energy and resources for a country with 1.3 billion people," Liu said.

As China is facing a "grim situation" in energy saving and emission reduction, Liu noted, it is urgent to restructure the country's energy use and control the gross consumption volume this year.

To ensure a stable energy supply, China will optimize the layout of energy exploration, start construction of energy-transmission projects and other major energy programs while boosting reserves of oil, natural gas and coal in 2012, Liu said.

The NEA plans to add another 200 metric tons to the country's coal-producing capacity this year plus 70 million kw of new installed power-generating capacity.

If the ecology is protected and people are relocated, China will start construction of hydropower projects of 20 million kw in 2012, according to the NEA.

Once safety is ensured, nuclear power will be developed after the country's new safety plan is approved.

As for renewable energy development, the NEA plans to launch wind power projects with a total capacity between 15 million kw and 18 million kw, while developing 3 million kw of solar power over the new five-year period ending 2015.

Liu said, in 2012, the country aims to provide electricity to another 600,000 people who currently have no access to it and expand electricity access to 5 million people by 2015.

The NEA has budgeted 65 billion yuan (10.3 billion U.S. dollars) for upgrading the grids in rural areas.

Over the next four years, China will facilitate the development of non-conventional natural gas, such as shale gas and coalbed methane by increasing the number of natural gas users by 100 million to 250 million.

A key indicator measuring the economic vitality, power consumption rose 11.7 percent year-on-year to 4.7 trillion kWh in China in 2011. The growth in 2012 is expected to slow to 8.5 percent amid the country's economic slowdown.

http://news.xinhuanet.com/english/china/2012-01/10/c_131353189.htm

Pilot project paves way for China's offshore wind power boom

BEIJING, Jan. 3 (Xinhua) -- China has made substantial progress in boosting its burgeoning offshore wind power by launching its largest intertidal wind farm at the end of 2011.

On December 28, Longyuan Power, China's largest wind power developer, connected 99.3 megawatts (MW) of wind turbines to the grid in a pilot intertidal wind farm in Rudong county in eastern province of Jiangsu.

Taking into account the existing 32MW turbines, which went into operation in September 2010, Longyuan has 131.3MW turbines integrated to the grid in the pilot wind farm in Rudong. This has made the Rudong intertidal project China's largest offshore wind farm.

Intertidal wind farms are a unique form to tap offshore wind power. Intertidal areas cover vast sea regions that are submerged in rising tide and heaved out in ebb tide.

According to China's Wind Power Development Roadmap 2050, recently issued by the energy research institute of National Development and Reform Commission, until 2021, China will focus on onshore wind development.

Overall, China plans to have 1,000 gigawatts (GW) of installed wind capacity by 2050, making up 17 percent of the country's electricity consumption. So far, wind power generation

accounts for 1.5 percent of national power generation.

China's only offshore wind farm in commercial operation is the Shanghai East Sea Bridge Offshore Wind Farm, totaling 102 MW. It went into operation in June 2010, using 34 Sinovel 3MW turbines.

Longyuan started to construct the Rudong intertidal wind farm in June 2009. The first stage of the pilot project, set to be 150 MW in installation, involves an investment of 2.5 billion yuan (397 million U.S. dollars). It will be fully completed in March 2012, said Zhang Gang, general manager of Longyuan Jiangsu Offshore Wind Power.

Zhang said the wind farm will annually generate 330 million kWh of electric power for the grid, saving 97,000 tonnes of standard coal. It can reduce emissions of 267,000 tonnes of carbon dioxide and 1,940 tonnes of sulfur dioxide.

Xie Changjun, general manager of Longyuan, said "Our construction of the Rudong pilot intertidal wind farm will lead the way for China to develop offshore wind power, particularly in site selection, planning and design, installation and maintenance."

"We will supply a test platform for Chinese offshore wind turbines to go mature. In brief, we will accumulate valuable experiences for China to develop offshore wind power on a large scale," Xie said.

INSTALLATION COSTS DROP

High installation cost is a major factor restricting the boom of China's offshore wind power.

Industry officials say that offshore wind farm construction costs are mainly wind farm facilities and installations. Wind farm facilities, such as wind turbines, foundations and electric cables, make up 79 percent of the total wind farm construction costs. Installation constitutes 15 percent of total costs. Among the installation costs, installation of turbines and foundations makes up 9 percent and submarine cable pavement 6 percent.

Zhang said Longyuan has overcome problems in offshore wind farm construction. It has reached the European advanced level in technology for offshore wind farm construction, while also lowering offshore wind installation costs to 16,000 yuan/kw, about 60 percent of the European level.

Zhang said the secret for lower installation costs include improved technology for single pile foundation forms, which Longyuan applied to install 17 turbines, and multi-pile jacket foundation forms, applied to install 21 turbines.

"According to the current installation costs and interest rates on loans, we may keep the production costs of offshore wind power to about 0.8 yuan/kwh. We may profit this way," Zhang said.

However, he pointed out that with such construction costs, offshore wind power remains weak in competitiveness when connected to the grid. The benchmark feed-in tariffs for onshore wind farms are 0.51-0.61 yuan/kwh.

"We need to make greater breakthroughs in cost control and turbine quality, if we are to develop offshore wind power at a large scale," Zhang said.

80 BILLION YUAN CAKE

China is determined to build up its offshore sector, as the best onshore sites have already been taken.

Compared with Europe, China has just broken the ice for offshore wind power. China's offshore capacity remains a tiny proportion of its total installed wind-power capacity. And yet China has rich offshore wind power resources.

According to the China Meteorological Administration, China has up to 750 GW exploitable wind resources in the sea, three times that of onshore wind resources.

These offshore wind resources are based at the eastern and southern coasts, large economic centers with growing demands for power and a diminishing supply of fossil-energy resources.

In 2010, China awarded four contracts, through a bidding process, to power companies to construct 1 GW offshore and inter-tidal concession projects. They are scheduled to be completed in four years.

Eligible companies were restricted to domestic wind-farm developers or joint ventures that are more than 50 percent Chinese-owned. Sinovel, Goldwind and Shanghai Electric, leading Chinese turbine makers, supply the turbines.

Industry officials say China might issue a second request for tenders for offshore concession projects in the first half of 2012. The projects, totaling up to 2GW, will be located across the

provinces of Jiangsu, Hebei, Shandong, Zhejiang and Guangdong.

China is planning a major offshore development push. According to the National Energy Bureau (NEB), China will construct 5GW of offshore wind projects by 2015, five percent of its total wind installed capacity, while developing full technology and setting up a complete industrial supply chain.

By 2015, China will enter into scaled development of offshore wind power and its technology, and by 2020, China will construct 30 GW offshore projects, becoming the largest country for offshore-wind power development.

Industry officials believe the 5GW installation capacity in the next five years will create 80 billion yuan in market opportunities.

Tao Gang, senior vice-president of Sinovel, said China needs around 6,000 offshore turbines with a 5MW capacity to meet the 30GW target for 2020.

China's leading wind turbine makers are vying for a slice of that market. In May 2011, Sinovel rolled out a 6MW prototype, and in October installed the 6MW offshore turbine in Sheyang county, Jiangsu Province.

Other leading Chinese wind turbine makers, including Guodian United Power, Shanghai Electric, Goldwind, and Chongqing Haizhuang, are also developing 5MW or 6MW turbines.

Last September, Shanghai Electric won a 100MW deal to supply 3.6MW offshore turbines for the second stage of China's Shanghai East Sea Bridge project.

Zheng Fangneng, energy section chief under the Ministry of Science and Technology, said that over the next five years, China will support development of big-capacity wind turbines, key components, and industrialization technology. Priority will be given to 3MW to 5MW turbines and 6MW to 10MW experimental offshore turbines.

Foreign turbine makers are also eyeing this lucrative market. In 2010, GE set up a joint venture with Harbin Electric Machinery Company to develop wind turbines for the Chinese market.

In February 2011, Shanghai Electric and Siemens signed a joint venture to supply Siemens blades to the Chinese market. In June, Longyuan handed Siemens its first ever offshore

turbine order in China, 21 units of SWT-2.3MW turbines, for the Rudong inter-tidal project.

Siemens Wind Power CEO Jens-Peter Saul said: "We see good opportunities for offshore wind power in China with its shallow water near the consumption centers on the coast. This order is an important step in entering the rapidly growing Chinese wind power market."

In December, Shanghai Electric and Siemens announced plans to expand their existing collaboration and set up two new joint ventures.

In September, Gamesa's new chief executive for China Jose Antonio Miranda said he hoped to introduce the company's upcoming offshore wind turbine, G11X 5MW, to China within the next two years.

Gamesa opened its sixth manufacturing plant in Tianjin city in November as part of its aim to expand market share in the country. The assembly plant takes Gamesa's capacity in China to 1GW.

In the same month, Scottish First Minister Alex Salmond said he was looking to increase the level of cooperation between Scotland and China on the development of offshore wind energy.

Hyundai Heavy Industries, the global shipbuilding giant, said in September it expected to generate sales of 300 million U.S. dollars a year by 2015 from a new wind turbine factory in China.

"China is a market you can't ignore," said Kim Kwean Tae, head of low-carbon business at Hyundai

http://news.xinhuanet.com/english/china/2012-01/03/c_131340379.htm

Energy use to be regulated by central system in China

January 11 (China Daily): BEIJING - China will set up an integrated system to control national energy use during the 12th Five-Year-Plan (2011-2015), a senior official said on Tuesday.

There has been some progress at the provincial level, and the central government will focus

more on top-down planning for energy consumption, Liu Tienan, head of the National Energy Administration (NEA), said during the agency's annual work conference.

The NEA started planning last year for a total energy consumption limit, which would regulate use by each province.

According to one industry insider who declined to be identified, the move might increase the pressure on local governments, which are focused on economic growth.

The insider said that China might limit energy consumption to less than 4 billion tons of standard coal during the 12th Five-Year Plan.

During the 11th Five-Year Plan (2006-2010), China used 3.25 billion tons of standard coal, or 300 million tons more than planned.

"It is a great step and a positive trend to complete the system," said Lin Boqiang, senior researcher at the China Center for Energy Economics Research at Xiamen University.

"It's possible to establish such a system, but making sure that local governments follow it is still a hard task.

"For local governments, to control energy consumption equates to limiting their economic development and growth," he said. "For the new system to take effect may take longer than we expect."

Lin said that in the past, many local governments used power curbs to reduce coal consumption by factories, which wasn't a wise solution.

In the future, provincial governments could trade energy consumption shares among themselves, which could lead to a more rational development of the energy sector.

According to the NEA, China will raise its coal production capacity to 200 million tons by the end of this year and its total installed power capacity by 70 gigawatts (gW).

Liu said that 16 gW of wind capacity was connected to the grid in 2011, bringing the total to 47 gW, while solar power capacity reached 3 gW, three times higher than in the previous year.

New hydropower capacity will reach 20 gW in 2012 and the country will develop the nuclear power sector "efficiently" in line with safety standards, said Liu.

Liu also said that the country will increase natural gas supplies in the coming years, and it will bring the number of residential natural gas consumers to 250 million, up 100 million, by the end of 2015, which is when the current five-year plan ends.

http://www.chinadaily.com.cn/cndy/2012-01/11/content_14418753.htm

China to retrieve more natural gas

January 12 (China Daily) : BEIJING - China's output of natural gas is expected to increase by 11 percent in 2012 to reach 113 billion cubic meters, the China Petroleum and Chemical Industry Federation said on Wednesday.

The country is expected to use more than 200 million tons of crude oil, an increase of 1.5 percent from the year before. And it is expected to produce about 280 million tons of diesel fuel and gasoline, an increase of 5 percent, the federation said.

Buoyed by strong domestic demand, the country's apparent consumption of crude oil - which includes domestic output and imports but excludes exports - is expected to amount to 480 million tons this year. That will be an increase of 5.3 percent from the year before.

The demand for natural gas will call for the use of 148.2 billion cu m of the fuel, an increase of 15.3 percent from a year ago, the China Petroleum and Chemical Industry Federation said.

The apparent consumption of crude oil is expected to increase by an average of 5 percent during each year of the 12th Five-Year Plan (2011-15). And the amount of natural gas used is expected to increase by an average of 19.4 percent a year during that time, said Li Shousheng, executive vice-president of the petroleum and chemical industry federation.

On Tuesday, figures from China's customs authority showed that China's economic slowdown dragged the growth rate for its crude oil imports to 6 percent in 2011. The year before, that rate had been 17.5 percent.

An official figure has yet to be released for the growth of China's gross domestic product (GDP) in 2011. Many observers, though, expect the figure to show the economy grew by 9.2 percent that year. This year, the growth rate is expected to further fall to about 8.5 percent.

The China Petroleum and Chemical Industry Federation said the amount of China's refining capacity reached 590 million tons in 2011, an increase of 6.9 percent from the year before. The strict controls the government has placed on diesel fuel and gasoline prices are believed by many to have caused the country's petroleum-processing industry to lose 4.98 billion yuan (\$788.6 million) from January to October in 2011.

The federation said the apparent consumption of diesel fuel and gasoline is expected to increase by 5.8 percent, hitting 280 million tons this year. The domestic industry has overcapacity, Li said, adding that the country will continue to consolidate domestic refineries and close down small refineries that are inefficient and have slim capacities, he said.

Liu Tienan, director of the National Energy Administration, said at the National Energy Work Conference in Beijing on Tuesday that China plans to establish a system to curb domestic energy use and that the country's ultimate goal is to reduce emissions.

Liu also said investments in natural gas - unconventional gas in particular - are expected to increase greatly during the period of the 12th Five-Year Plan.

http://www.chinadaily.com.cn/bizchina/2012-01/12/content_14426950.htm

China's renewables surge dampened by growth in coal consumption

January 12 (Guardian): China tripled its solar energy generating capacity last year and notched up major increases in wind and hydropower, government figures showed this week, but officials are still struggling to cap the growth in coal burning, which is the biggest source of carbon dioxide emissions in the world.

The latest evidence of China's promotion of renewable energy has been welcomed by climate activists, but they warn that the benefits are being wiped out by the surge in coal consumption.

After burning an extra 95m tonnes last year, China will soon account for half the coal burned on the planet.

This has alarmed state planners concerned about the impact of air pollution and climate change, but their efforts to cap the nation's energy consumption are said to have run into resistance from local governments who fear restrictions on economic growth.

At a key policymaking meeting in Beijing this week, Liu Tienan – the director of the National Energy Administration – called for energy use to be kept below 4.1bn tonnes of coal equivalent per year by 2015.

If the proposal is accepted, this would be the first time China has set such a ceiling. Until now, Beijing has only set goals for energy and carbon intensity, which are relative to economic growth and so fluctuate according to GDP figures.

But the proposed figure remains the subject of fierce discussion as it was based on an assumption that China's economy will grow at 7.5% per annum up until 2015, by which time the government is supposed to bring down energy intensity (units of energy per unit of GDP) by 16%.

However, provincial governments are projecting a combined economic growth rate of more than 9%, which means they will face a fuel shortfall unless the energy target are raised or they fail to reach their goals.

The negotiations are held behind closed doors and are likely to last several more months, but it is believed that the provinces are arguing for a higher target of between 4.25 and 5 bn tonnes.

As well as being distant from the current reality of a slowing economy – the forecast for the first six months of this year is for no more than 7.5% growth – this prospect horrifies environmentalists.

"If it goes up to 5bn tonnes, it would be a disaster; China would effectively be promoting high-energy, high-carbon growth," said Li Yan of Greenpeace.

If accepted, an energy cap would immediately become one of the most important industrial targets in the world because it would largely determine how large a mountain of coal China burns and, as a result, how much CO2 it emits.

Depending on how it was structured, such a target could also help or hinder the development of the renewable energy industry.

China continued to make rapid progress in this field last year, according to figures published on the website of the National Energy Administration.

They show a rise of 47GW in wind power generating capacity, and the completion of an extra 12.6 gigawatts of hydropower, with almost twice that amount also likely to come on line this year. The UK has 75GW of energy capacity, of all types.

The most spectacular growth, however, was in photovoltaic power generation, which rose threefold to 3GW, the administration noted.

Yet coal continues to account for close to 70% of the nation's power supply. The government is trying to bring this proportion down below 65%, but it is not making progress fast enough.

Yang Fuqiang of the US-headquartered NGO National Resources Defence Council, said Chinese energy consumption rose almost threefold from 2000 to reach 3.2bn tonnes of coal equivalent in 2010. On current trends it will rise to almost 5bn tonnes by 2020.

"We must do something about this," said Yang, a former government official. China uses too

much coal. It's the source of carbon emissions and pollution."

Yang wants the government to change its proposed energy cap into a coal cap, which would allow provincial authorities to grow faster if they used more renewable energy or gas.

The debate is expected to continued for several more months with targets for the provinces unlikely to be released before the summer.

<http://www.guardian.co.uk/environment/2012/jan/12/china-renewable-energy-coal-consumption?newsfeed=true>

Future is bright for thin-film energy cells

December 30 (China Daily): CHANGXING, Zhejiang -The gloomy solar-cell market and a rising number of trade disputes within the industry means that the time is ripe for the development of thin-film photovoltaic (PV) panels, according to Li Hejun, president of Hanergy Holdings Group Co Ltd.

Hanergy, one of the few privately owned Chinese generators, said it will establish seven thin-film PV cell production bases next year, a move that will increase the company's total production capacity to 2 gigawatts (gW) by the end of 2012.

After putting two 300 megawatt (mW) capacity production bases into operation in Shuangliu, Sichuan province and Heyuan, Guangdong province earlier this year, the company opened a third - with a production capacity of 250 mW - on Dec 25 in Changxing, Zhejiang province.

Li said anti-dumping cases and anti-subsidy investigations into Chinese solar cells, initiated by the United States and India, have put the polysilicon solar cell industry under pressure, and that will lead to a structural reorganization of the solar energy sector.

Unlike the US probe which will only focus on silicon solar panels, India is likely to also include thin-film PV cells in its petition. However, Li said that he didn't think the cases will influence the company's expansion plan.

"The company is aiming to build an entire production chain because we are a power-generation company, rather than simply a manufacturer of solar cells," said Li.

The company has no export business and analysts said that means the probes won't affect it.

Zhao Yuwen, vice-chairman of the Chinese Solar Energy Society, said the high production costs are still a major obstacle to the development of the thin-film PV cell industry.

He said the unit cost of thin-film solar cells is between 10 and 20 percent higher on average than that of polysilicon cells.

"The thin-film PV cell industry is still at a fledging stage and the market is not mature enough," he said.

An insider, who works at one of the country's top three solar companies but declined to give his name, said that investing in the thin-film PV cell industry is still risky and requires a strong capital foundation.

"Suntech Power Holdings Co Ltd suspended its research into the sector in 2010 because of the high cost and other reasons," he said. "Recently, there have been reports that that company has restarted the research. Their technology is similar to that of First Solar Inc, the world's largest producer of thin-film solar cells."

According to Zhao, the average energy-conversion efficiency rate of thin-film PV cells is 6 to 7 percent in China. However, while First Solar achieved a record high of 17.3 percent in one of its tests, Suntech still lags behind.

Hanergy claims that its conversion efficiency rate could be 10 percent when the new production bases become operational.

The company also has plans to build factories in the provinces of Heilongjiang, Shandong, Jiangsu and Hainan next year.

On Nov 2, China Development Bank Corp agreed to extend the company a credit line worth 30 billion yuan (\$4.7 billion) over the next five years to help the company build photovoltaic and hydroelectric power stations both at home and abroad.

Bank Sarasin & Cie AG, the Swiss private bank, published a report on the solar sector that said the world's top thin-film PV cell companies are rapidly expanding their capacities. By 2013 each of the top 10 companies will have a minimum production capacity of 500 mW.

"With companies such as First Solar, Sharp, ShowaShell, GE and Hanergy as front runners, thin-film technologies should be able to achieve average annual growth rates of 32 percent up to 2013," the report said.

Li Shengmao, domestic senior industrial researcher at the CIC Industry Research Center, said the distributed generation of new energy is gradually getting more support from the Chinese government, which is beneficial for the development of the thin-film PV cells industry, because it can better meet demand than the polysilicon cells sector.

According to the center's statistics, if China employs thin-film PV solar cells in roof construction, it will create a market of between 100 billion yuan and 130 billion yuan for the thin-film cell industry.

http://www.chinadaily.com.cn/cndy/2011-12/30/content_14354081.htm

Automobile and Transportation

China Auto Sales Growth Lags Behind U.S. First Time in 14 Years

Jan. 12 (Bloomberg) -- China's auto sales slowed last year, trailing growth in the U.S. for the first time in at least 14 years, after the government ended stimulus measures and as the nation's economic expansion showed signs of easing.

Total vehicle sales, which include cars, trucks and buses, rose 2.5 percent to 18.5 million, according to data released by the China Association of Automobile Manufacturers today, compared with the 3 percent median estimate of five analysts surveyed by Bloomberg. The

country remained the world's biggest vehicle market for a third straight year.

Delivery growth slowed from the 32 percent rate in 2010, after China withdrew a two-year package of tax breaks and rebates that helped the country overtake the U.S. Higher interest rates and restrictions on new vehicles in Beijing also deterred purchases, adding to supply disruptions that sent Honda Motor Co. to its first sales decline in the country.

"China's auto sales growth won't reach anywhere near the past couple of years as it scales back to a more sustainable pace," said Jenny Gu, an analyst with industry researcher LMC Automotive in Shanghai. "The past few years were boosted by government incentives."

Passenger-car deliveries rose 5.2 percent to 14.5 million, slowing from the 33 percent growth in 2010, according to data from the automakers association. Commercial vehicle sales, a category that includes buses and trucks, fell 6.3 percent to 4.03 million units.

Congestion, Pollution

Traffic congestion and worsening pollution prompted Beijing's municipal government to impose a quota on new vehicles last year and distribute license plates through a monthly lottery.

Sales growth in China outpaced the U.S. every year before 2011, according to data from the association stretching back to 1998. U.S. light-vehicle sales climbed 10 percent, or almost 1.19 million, to 12.8 million in 2011, according to researcher Autodata Corp. U.S. deliveries may rise about 5.6 percent this year to 13.5 million, the average estimate of 10 analysts surveyed by Bloomberg.

The rebound in U.S. auto demand is a reversal from 2009, when industry sales plunged to the lowest in more than a quarter century, pushing General Motors Co. and Auburn Hills, Michigan-based Chrysler into bankruptcy along with dozens of their suppliers.

Toyota, Honda

Toyota Motor Corp., Asia's largest carmaker, said last week that China sales rose last year at the slowest pace since at least 2004, increasing 4 percent to 883,000 vehicles. Tokyo-based Honda reported its first annual sales decline in

China this week, with deliveries falling 4.5 percent in 2011 to 617,764, as Japan's strongest earthquake in March and flooding in Thailand disrupted production.

China's gross domestic product expanded 9.1 percent from a year earlier in the third quarter, the least in two years. The pace may have fallen to 8.5 percent in the fourth quarter, according to Citigroup Inc.

Growth in passenger-vehicle demand in China will accelerate this year to 14 percent as inflation cools and disposable incomes rise, Morgan Stanley said in a Jan. 9 report. Still, sales growth of luxury cars will probably slow to a six-year low of 12 percent in 2012 because of intensifying competition, according to the report.

GM, Ford

GM, the biggest foreign automaker in China, increased sales in the nation 8.3 percent last year to a record 2.55 million vehicles, helping the Detroit carmaker regain the global sales crown 18 months after exiting bankruptcy.

Ford Motor Co., which is adding four new plants in China with its partners, said sales grew 7 percent to 519,390 vehicles, its highest tally, boosted by deliveries of the Dearborn, Michigan-based company's Mondeo sedan and Focus hatchback.

Last month, China said it will end a seven-year policy to encourage foreign investment in the automotive manufacturing industry on Jan. 30 to allow for "healthy development." The announcement comes two weeks after the country said it would impose anti-dumping duties on some vehicles imported from the U.S. after failing to block a U.S. tariff on Chinese tires.

Overcapacity in China's automaking industry emerged in 2011 and will probably worsen every year through 2015, Mizuho Securities Asia Ltd. said in a Dec. 30 report. Auto production capacity in the country will probably rise 15 percent in 2012 and 20 percent in 2013, outpacing the estimated 4 percent annual increase in demand, according to the report.

<http://www.businessweek.com/news/2012-01-12/china-auto-sales-growth-lags-behind-u-s-first-time-in-14-years.html>

China's Automaker Sets New Record For Renewable Energy Storage

January 4 (Forbes) - BYD Co., which counts Warren Buffett as an investor, has completed the world's largest lithium-ion battery project to bottle wind and solar electricity in China, which will likely see more large energy storage projects as a result of its ambition to add lots of renewable energy.

The Chinese electric car and battery maker finished the 36 megawatt-hours storage farm in December for the State Grid Corporation of China, a transmission company with a massive plan to pair storage with wind and solar power plants, said Micheal Austin, vice president of BYD America on Tuesday. BYD's batteries will help to store electricity from the first phase of the plan, which includes 100 megawatts of wind and 40 megawatts of solar energy systems in the northern province of Hebei.

State Grid has told BYD that it wants to expand the plan to include 500 megawatts of wind and 100 megawatts solar and build 110 megawatts of storage to bank some of the renewable energy and discharge it when needed, Austin said. Wind, in particular, tends to blow stronger at night, when electricity demand is lower, making it desirable to store it for later use.

"Battery is fantastic because you can charge it for daytime use. It's a green energy generation site," Austin said.

The Rise of Energy Storage Market

The growth in wind and solar electricity generation has prompted utilities to consider energy storage as a way to manage supply and demand. Wind turbines and solar arrays only produce power at certain times of the day, and their power output can diminish quickly when the wind dies or the sun hides behind the clouds. That sudden drop is bad news for utilities, which will have to turn up their other, often fossil fuel-based power plants to make up for the shortfall. But a coal or gas turbine takes some minutes to crank out more power. If utilities don't find other power sources to fill in during that powering-up period, then there could be a brownout or a blackout.

In comparison, power plants that can produce electricity continuously – as long as you feed them fuels such as coal or natural gas – don't present the same problem for utilities.

Dealing with variable power output isn't a serious problem for utilities yet because wind and solar make up only a tiny share of the overall energy mix. In Germany, the largest solar energy market in the world, solar accounts for 3 percent of its power supply. In the United States, solar made up less than 1 percent of the power produced in 2010, according to the Energy Information Administration.

But utilities in many industrialized and developing countries are anticipating a growth in wind and solar energy generation as a result of government mandates to increase the use of cleaner energy and reduce greenhouse gas emissions. China has set some big goals: it upped its solar energy generation target last month to 15 gigawatts by 2015 from the previous goal of 10 gigawatts. It had installed less than 1 gigawatt of solar by the end of 2010. The government promotes solar energy generation by setting higher prices solar electricity to ensure a good return for project developers and owners, a practice that has long been used by countries such as Germany.

China's plan to add lots of renewable energy means it could be a huge market for energy storage technology, battery companies say. Several American battery companies, such as A123 Systems and ZBB Energy, have formed joint ventures with Chinese companies and developed pilot projects in China. Boston-Power announced an infusion of investments from Chinese investors last fall and is moving the bulk of its operation to China. It's building a lithium-ion battery factory near Shanghai.

Does Size Matter?

At 36 megawatt-hours, BYD's project is the largest in physical size and energy capacity for lithium-ion battery storage. At its peak charging and discharging speed, the batteries can deliver 20 megawatts of power in one hour and 45 minutes, Austin said. But State Grid commissioned the system to discharge power more slowly, over 4 to 6 hours, he added.

The project isn't the most powerful lithium-ion battery farm in operation though. That title still goes to the project in West Virginia that can

deliver 32 megawatts in 15 minutes, said Haresh Kamath, program manager for energy storage at the Electric Power Research Institute, which serves the U.S. utility industry. Utilities could consider this project, developed by AES Energy Storage, to be the largest lithium-ion battery system because of their practice of labeling energy generation projects in terms of megawatts, he said. At 8 megawatt-hours, the AES project doesn't provide as much energy as the BYD project.

Move up Move down

"Megawatt" refers to the speed of charging and discharging a battery while "megawatt-hour" denotes the amount of energy that can be stored or delivered. A battery that is designed for speed doesn't mean it also can provide energy for a long time. An electric car, for example, ideally wants to have a battery that delivers a lot of power quickly for accelerating and also holds a lot of energy so that it can sustain a long driving range, Kamath said.

The world's largest battery storage farm is in Japan, but it doesn't use lithium-ion batteries. Instead, it uses sodium-sulfur batteries and provides 34 megawatts over 7 hours (238 megawatt-hours), Kamath said. The most powerful battery belongs to the Golden Valley Electric Association in Alaska, where a nickel-cadmium battery project can discharge 46 megawatts in five minutes. But ABB designed this project to run 27 megawatts over 15 minutes because that was what the utility wanted (the project holds the Guinness world record for the most powerful battery).

Both figures — power and energy — are important numbers to have to do an accurate comparison of battery storage projects.

"It's essential to have both numbers. Utilities will want to know both the power levels and how long they are going to get the power," Kamath said.

<http://www.forbes.com/sites/uciliawang/2012/01/04/china-sets-new-record-for-renewable-energy-storage/>

China issues common power charging standards for electric vehicles

BEIJING, Dec. 27, 2011 (Xinhua) -- The Ministry of Industry and Information Technology announced Tuesday that the country has issued four common standards regarding power charging of electric vehicles in efforts to better promote the environmentally friendly products.

The four standards, to be effective on March 1, 2012, concern the general requirement, the DC charge coupler inlet, the AC charge coupler inlet, and the communication protocol between charging generator and battery management system.

Disunited standards concerning power charging for electric vehicles has long been a problem that impedes the long-term development of clean-energy vehicles in the country, an official with the ministry said.

The official said that the common standards would provide significant technological support for the building of infrastructure that will help promote electric vehicles.

http://news.xinhuanet.com/english/china/2011-12/27/c_131330127.htm

In China, Power in Nascent Electric Car Industry

December 27, 2011 (New York Times): GUANGZHOU, China — Three years ago, as part of its green-energy policy, the Chinese government set an ambitious goal: by the end of 2011, the nation would be able to produce at least 500,000 hybrid or all-electric cars and buses a year.

With only about a week to go, it is clear China will fall far short of that target. Despite dozens of electric-vehicle demonstration projects around the country, analysts put China's actual annual production capacity at only several thousand hybrid and all-electric cars and buses.

"It's pretty trivial at this stage — they hardly sell any," said Lin Huaibin, the manager of China vehicle sales forecasts at IHS Automotive, a global consulting firm.

Obstacles include continued technological hurdles, disputes over technology transfers by multinational automakers, and a broad wariness by the Chinese public regarding alternative-technology cars.

But it would be shortsighted to count out China's electric car efforts just yet. Only a few months ago Prime Minister Wen Jiabao called for Beijing to create a new "road map" for energy-saving vehicles.

Unlike in other nations, where automakers are leading the push for electric vehicles, in China the effort is being led largely by one of the country's most powerful industries — the state-run electric companies that operate the national power grid. With China expected to surpass the United States in the number of all vehicles on the road by as early as 2020, the government-run utilities see it as their job to provide an alternative to imported oil as a way to power several hundred million cars, trucks and buses.

This month in this sprawling southern industrial city, for example, the giant China Southern Power Grid company opened a sales and service center for electric cars.

The new three-story building, resembling a giant lizard egg of lime-green glass, is a showcase for technology supplied by Better Place, a start-up based in Palo Alto, Calif. Under the Better Place business model, customers not only recharge their electric cars but also periodically stop at an electric filling station to swap their nearly depleted batteries for freshly charged ones.

And just because there are no customers kicking the tires now doesn't mean China Southern Grid, as it is commonly known, isn't in the electric-vehicle game for the long haul. The power company and Better Place are in talks to sell electric cars to the Guangzhou municipal government and to taxi fleets, according to Shai Agassi, Better Place's founder and chief executive.

The demonstration project showcases imported Renault Laguna sedans and Nissan Dualis crossover utility vehicles whose gasoline-fueled

power trains have been replaced with electric motors and swappable batteries. But the companies are in talks with Chinese automakers to produce battery-powered cars, for which no price has been set.

In a separate bet, meanwhile, China Southern Grid has also built recharging stations in another big southern industrial city, Shenzhen, for electric buses and cars made by a Chinese automaker, BYD, which has Warren E. Buffett among its investors.

Though automakers in other countries have supplied charging equipment to be installed at homes and parking lots, China's power industry has already made it clear that it wants to dictate when and how plug-in gasoline-electric hybrids and all-electric cars are charged, by owning the charging equipment and setting technical standards.

"It is more and more difficult to manage the grid; we need more flexibility," by controlling how cars are recharged, said Zhang Diangsheng, the deputy general manager of China Southern Grid.

After initially seeking to leapfrog Japan and the West by moving straight from internal combustion engines to cars powered only by batteries, Chinese policy makers are now paying more attention to hybrids that combine gasoline engines with electric motors. (As battery-fire problems with the Chevrolet Volt in the United States have recently indicated, technical problems still bedevil electric automotive technology.)

Even some of the Chinese companies like BYD that have bet most heavily on all-electric cars are now investing in plug-in hybrid cars that have gasoline engines as well as batteries.

"More and more companies are certainly going to do it like this," Wang Chuanfu, BYD's founder and chairman, said in an interview at his company's headquarters in Shenzhen. But he quickly added, "there is still tremendous potential in the Chinese market for electric cars."

Some of the obstacles that have slowed deployment of all-electric cars in China also exist in other markets. The cars' range, less than 200 miles even under ideal conditions, falls steeply in cold weather, if the air-conditioner is

turned on or if the car was not fully charged overnight.

"I'm not interested in them — I worry I'd run out of electricity and get stuck," said Mu Zhongbao, a 31-year-old businessman who paid the equivalent of \$130,000 for an Audi Q7 minivan on a recent afternoon here at one of the many dealerships near the Better Place site.

Southern China Grid's Better Place demonstration project indicates that powerful interests in China still back the development of all-electric cars.

"I see the Chinese fully committed on a path toward electric vehicles — the time frame may shift, the volume numbers may shift," said Raymond Bierzynski, the executive director of electrification strategy at General Motors China.

Some executives say that China has fallen behind its schedule for hybrid and all-electric cars because it has put heavy pressure on multinationals to transfer technology to their Chinese partners to be eligible for generous subsidies for the sale of alternative-energy vehicles in China. Some foreign manufacturers have responded by withholding some of their latest models from the Chinese market — as Nissan has with the electric Leaf.

G.M. has put the Volt on sale in China, despite the Chinese government's decision to make it ineligible for renewable energy subsidies of up to \$19,300 per car. That is because G.M. has not transferred enough of the technology to satisfy Beijing, although G.M. did agree this autumn to share some electric technology in the coming years.

"By forcing foreign technology sources into a junior role, that's going to significantly slow the development of the technology in China," said Bill Russo, a former auto executive who oversaw the Chinese and Korean markets for Chrysler and is now an industry consultant in Beijing.

But the betting in China is that China Southern Grid and another big grid operator, the State Grid Corporation, and their allies among the country's five main electricity generation companies have much more influence in Beijing than the auto industry.

The Chinese auto industry was tiny until the last decade, and very few of its executives have wound up in senior government positions. By contrast, specializing in electric power has long been a path to the top of the Chinese Communist Party for leaders like Li Peng, the former premier.

And as long as the electric companies are influential, all-battery cars may hold the political edge over hybrids.

But what is not clear is which of three experimental approaches to recharging will eventually dominate the field: the so-called fast charging of vehicle batteries at recharging centers; overnight charging options at homes and parking lots; or battery swapping à la Better Place.

Meantime, World Trade Organization rules are also influencing how China approaches electric cars, said a Chinese official close to the decision-making who insisted on anonymity because he was not authorized to publicly discuss transportation policy.

The government wants to build an electric car industry that can export vehicles all over the world. But it does not want to someday face W.T.O. trade complaints from other countries that might accuse China of violating free-trade export rules by subsidizing the industry's development. With China having raised trade tensions with the United States earlier this month by slapping additional tariffs on a range of American imported autos, Beijing may need to tread more carefully than ever.

The most promising trade strategy for China to avoid legal pitfalls might be for the government first to subsidize the development of a network of charging stations for electric buses and other municipal vehicles, the Chinese official said. Mass transit subsidies are hard to challenge at the W.T.O. because they involve an almost purely domestic government service.

The bus recharging stations, and the lessons learned in building them, might then be used in a more extensive network of electric car recharging stations. Subsidizing the charging stations could help make electric cars more affordable, and in turn help Chinese automakers achieve economies of scale in their home

market that would help them build up an export business.

Already BYD is expanding its annual capacity to manufacture all-electric buses — 1,000 this year, up from 500 last year and with a target of 5,000 next year.

Mr. Agassi of Better Place predicted China would become a large-scale maker of electric cars and then start exporting them. “This is the fork-in-the-road moment” for China, Mr. Agassi said. “You get to a trade deficit on oil imports, or you get to a trade surplus with a lot of car exports.”

http://www.nytimes.com/2011/12/27/business/global/chinas-push-for-electric-cars-flows-through-grid-operators.html?pagewanted=1&_r=1

China waives sales tax on locally made EVs, fuel cell cars

January 9 (China Daily): China will waive sales taxes on electric and fuel cell cars made domestically by firms like SAIC Motor and BYD, the finance ministry said on Dec 31, in its latest initiative to shore up the country's fledgling green car market.

A total of 49 domestically made models, including the Sale electric car developed by SAIC's car venture with General Motors and two electric cars made at Volkswagen's two Chinese car ventures, will be exempted from sales taxes, the ministry said in a statement on its website (www.mof.gov.cn).

Other models include vehicles made by Warren Buffett-backed BYD, Chery Automobile, Geely Automobile Holdings as well as fuel cell cars made by FAW Group, among others.

Beijing has declared the electric vehicle industry a top priority, earmarking \$1.5 billion a year for the next 10 years to transform the country into one of the leading producers of clean vehicles. Buyers of locally made electric cars are also eligible for government subsidies of up to 120,000 yuan (\$19,100) per vehicle. Imported models such as GM's Chevy Volt are excluded from this policy.

However, demand for electric cars remains weak in China due to the high cost, limited range and lack of charging facilities.

http://www.chinadaily.com.cn/bizchina/2012-01/09/content_14404771.htm

Getting up to speed in green autos

January 13 (China Daily) - The public and private sectors have agreed that energy-saving and new-energy vehicles will form the new area of development for China's auto industry.

The Ministry of Science and Technology has already spent 2 billion yuan (\$316.8 million, 248.2 million euros) helping more than 200 colleges, research institutes and companies to develop technologies in fuel cell vehicles, hybrid cars and pure electric cars over the past decade.

But the investment is far from enough when compared with those in other countries. A single foreign company could invest hundreds of millions of dollars in research and development.

There is also an ever-widening gap between China and foreign countries in terms of core technology.

In China, more than 60 companies have produced or have plans to develop new-energy cars, with about 120 models being recognized as new-energy cars.

But annual production of a majority of the cars is no more than 1,000.

The low production capacity has resulted in high prices, as well as low quality and reliability.

The same problem also exists in the car battery and electric motor industries. China has more than 100 companies producing batteries. But their combined output value amounts to only about 10 billion yuan.

China's industries also lag behind those of foreign countries - a major reason for its relatively backward car industry.

To address these gaps, the government should beef up research in basic materials and manufacturing equipment.

The future development of new-energy cars should also focus on pure electric cars, because China has basically established its own vehicle standards system and the industrial chain, starting almost at the same time with those of other countries.

The government could increase investment in several pure electric vehicle and core technology projects to meet the technological needs of the electric vehicle industry.

China began developing pure electric buses in the early 1990s with new technology.

Those electric buses have been successfully used in the Olympic Games in Beijing, the World Expo in Shanghai and the Asian Games in Guangzhou.

The technology used in the buses, with China's own intellectual property rights, has already been introduced to Europe.

China should take full advantage of its institutional and social systems to make breakthroughs in core technology and establish high-level industry standards to increase its competitiveness on the global market.

http://europe.chinadaily.com.cn/epaper/2012-01/13/content_14439443.htm

Car emission becomes major cause of air pollution

December 21, 2011 (People Daily) China has been leading the world in vehicle production and sales for two consecutive years and motor vehicle emissions have become a major contributor to the country's air pollution problems, according to the "China Motor Vehicle Emissions Control Annual Report 2011" recently released by the Ministry of Environmental Protection. The report includes information about vehicle emissions in China during the 11th Five-Year Plan period (2006-2010).

Coal combustion and motor vehicle emissions become primary sources of urban air pollution

Tao Detian, a spokesperson for the Ministry of Environmental Protection, said that during the 11th Five-Year Plan period, the number of motor vehicles in China rose from 118 million units to 190 million units, representing an annual growth rate of 10 percent.

Meanwhile, the number of cars nationwide surged 150 percent from over 30.8 million units to over 77.2 million units.

At present, vehicles that meet or exceed China's Grade III National Emissions Standards make up over 41 percent of the total number of the country's vehicles. The percentage for vehicles that meet the Grade II National Emissions Standards and Grade I National Emissions Standards is nearly 26 percent and 21 percent respectively.

The remaining 13 percent fail to meet even the Grade I emissions standards. In addition, nearly 80 percent of vehicles in China have a green label which represents low emissions, and over 20 percent have a yellow label which represents high emissions.

The rapid increase of motor vehicles in service has increasingly highlighted the importance and urgency of automotive pollution control. Pollution monitoring shows that China's urban air quality has started to show the characteristics of combined soot and vehicle exhaust pollution.

Dust haze, acid rain, photochemical smog and other regional air pollution problems frequently occur in some areas, and these problems are closely related to vehicle emissions. Meanwhile, as motor vehicles mostly run in densely populated regions, exhaust emissions are affecting people's health directly.

In 2010, China's automobiles emitted a total of more than 52 million tons of pollutants, including nitrogen oxide (NOx), hydrocarbon (HC), carbon monoxide (CO) and particulate matter (PM), in which NOx and PM emitted accounted for more than 85 percent, and HC and CO exceeded 70 percent.

In fuel, the NOx emission from all diesel vehicles in the country reaches nearly 60 percent of total vehicle emissions, and the PM emission accounts for more than 90 percent; while gasoline vehicles have higher CO and HC emissions, accounting for more than 70 percent of total vehicle emissions.

In emission standards, vehicles that comply with National I Standard, which account for 12.8 percent of total vehicles in use, emit more than 40 percent of total vehicle pollutants; while the vehicles that comply with National III Standard or above, which account for 41.1 percent of total vehicles in service, discharge less than 15 percent of total vehicle emissions.

As for environmental protection label, the "yellow-label vehicles", which account for 20.2 percent of total vehicles in service, emit 70.4 percent of NOx, 64.2 percent of HC, 59.3 percent of CO and 91.1 percent of PM.

Motor vehicle pollution has become the most prominent and urgent problem for the atmospheric environment.

Tao said, since the 11th Five-Year Plan period, China has constantly enhanced efforts in controlling motor vehicle pollution and has adopted comprehensive measures in various aspects including environmental admittance for new cars, environmental regulations for cars in use, and clean technology for vehicle fuel to accelerate the implementation of motor vehicle emission standards

It has speeded up phase-out of high-emission vehicles, strengthened the environmental regulatory system for motor vehicles, vigorously carried out development strategy of giving priority to public traffic, actively advocated "green travel" concept, and promoted lead-free and low-sulfide technologies for vehicle fuels.

The pollution control relating motor vehicles has achieved initial success. From 2005 to 2010, the national vehicle ownership increased by 60.9 percent, but emissions increased by only 6.4 percent; among which car ownership increased by 150 percent while emissions increased by only 7.4 percent.

Tao said that the Environmental Protection Department will implement all-around control on

total emissions of nitrogen oxides by motor vehicles, further strengthen environmental regulations during the whole processes of motor vehicle production and use; at the same time closely collaborate with relevant departments, adopt comprehensive measures in industrial development planning, urban public transport, supply of clean fuel and other aspects, coordinate and promote the simultaneous upgrade of "cars, oil, and road", alleviate the impact of vehicle emissions on the atmospheric environment.

<http://english.peopledaily.com.cn/90882/7683695.html>

Climate Change

Emission indexes to be published in China

December 27 (China Daily): BEIJING - Indexes measuring greenhouse gas emissions and power consumption will be published on a pilot basis next year in the latest move to meet energy-saving targets and restructure the economy.

Wen Jianwu, director of the energy statistics department at the National Bureau of Statistics (NBS), said the bureau plans to periodically publish the indexes.

A statistics-based evaluation system, monitoring energy saving and recycling in the construction and service sectors, will be launched in the first half of next year, he told China Daily.

"The basic statistical indexes of greenhouse gas emissions are under study jointly with the National Development and Reform Commission (NDRC)," Wen said.

These indicators are expected to show emissions generated by manufacturing and agricultural activities. They will also chart the growth of recycling and provide policymakers with the data for restructuring the economy, Wen said.

Five provinces, including East China's Shandong province and North China's Shanxi province, have been chosen as the pilot areas.

"The main target group of this survey will be enterprises," he said. "It also covers transport agencies and some public institutions."

NBS chief Ma Jiantang said on Friday that compiling the statistics for greenhouse gas emissions and energy consumption will be one of the most important tasks in the coming year.

"Emission reduction is China's commitment to the international community, and it is also the key for accelerating the transformation of our economic development mode," Ma said. "It is a challenge and new responsibility for the NBS."

Earlier this month in Durban, South Africa, delegates from China vowed to control domestic emissions at the United Nations Climate Change Conference.

But the absence of statistical information impedes the green drive, analysts said.

The NBS does not publish energy-related indexes very often and the method for gathering statistics should be improved, Wen added.

"More cities and household statistics will be covered in the future, and the basic statistical indexes will be launched in line with international standards," he said.

Li Junfeng, deputy director of the Energy Research Institute affiliated to the NDRC, said putting an over-emphasis on the speed of industrialization and GDP growth can be dangerous.

China plans to cut the use of energy for each unit of GDP by 16 percent in 2015 from the 2010 level.

"It will be a big step to release information on greenhouse gas emissions", a key request of many international organizations, said Li Yan, head of Greenpeace East Asia's climate and energy team.

The most difficult part is to make sure that companies will provide available and credible figures, Li Yan said.

Blu Putnam, chief economist with the CME Group, said that China's economic slowdown is likely to reduce the demand for commodities and cut the consumption of resources.

Fan Jianping, a researcher at the State Information Center, said that it might be a good time to reduce emissions and promote energy saving next year, because the expected weaker manufacturing production and economic slowdown will force more companies to embrace high-tech and high-efficiency strategies.

http://www.chinadaily.com.cn/cndy/2011-12/27/content_14331928.htm

Beijing to release PM 2.5 data

January 7 (China Daily): BEIJING - Just before Spring Festival this year, the capital city will start releasing data about the amount of tiny particulate matter that is detected in the air.

The Beijing Municipal Environmental Protection Bureau said it plans for the first time to begin releasing information gathered from efforts to detect the presence of PM 2.5 (particulate matter smaller than 2.5 micrometers). In keeping with other Chinese cities' decisions to tell the public more about airborne pollutants, the bureau will also release data about sulfur dioxide, nitrogen dioxide and larger particles.

The policy change comes after the Ministry of Environmental Protection announced at the end of 2011 that it would adopt a stricter index for gauging air quality, a decision made partly in response to public criticism about the standards that are now used to detect pollution.

Liu Qi, Party chief for Beijing, said the capital has done much to make its air cleaner in recent years. But if it wants to meet the public's expectations, it must go much farther, he said.

Liu said Beijing will take several steps to further improve the city's air: ensuring that more clean sources of energy are used, preventing dust from leaving construction sites and strictly controlling emissions of industrial pollutants.

Besides tightening the standards governing the release of pollutants, China's revised Environmental Air Quality Standards said Beijing

should begin monitoring PM 2.5 and ozone density as early as 2016. Meanwhile, 2012 is the year specified for cities in the Beijing-Tianjin-Hebei region or in the Yangtze or Pearl river deltas, as well as for Chongqing and provincial capitals.

By the end of 2011, many cities said they planned to begin publishing information about local PM 2.5 readings in 2012. Among them were Qingdao in Shandong province, Dalian in Liaoning province and Guangzhou in Guangdong province, as well as Shanghai and Tianjin.

"It is absolutely a good thing that the government finally plans to make these readings public," said Yang Yanli, 25, a Beijing accountant. "I hope they'll take measures to fundamentally improve the air, such as shutting down the companies that are the worst polluters."

"It's definitely a step forward in improving the city's air quality, even though the capital is not doing as much as some of the other cities," said Wang Qiuxia, a researcher at Green Beagle, an environmental protection NGO based in Beijing.

Even though the Beijing Municipal Environmental Monitoring Center has collected data on PM 2.5 for five years, it has not made regular announcements about its findings, said Wei Qiang, an engineer at the center.

Wang said the capital should do more to teach the public about the dangers of PM 2.5 - especially the old and children.

"For example, the capital could come up with rules that would prevent students from doing things outdoors when the readings reach a certain level."

Experts have found that particulate matter - especially PM 2.5 - can enter easily into the alveoli, the small sack-like structures inside the lungs.

Dong Liangjie, a former environmental scientist at University of Hawaii, said the old, the young, the pregnant and those suffering asthma and cardiovascular diseases are especially vulnerable to PM 2.5.

"The important thing is not to simply publicize the figures, but also to reduce the amount of pollutants being released," said Wang.

Du Shaozhong, deputy director of the Beijing Municipal Environmental Protection Bureau, said

the government has taken several measures to clean up the air. It has punished construction sites that release large amounts of dust, shut down coal-fired boilers in central Beijing and forced off the road old vehicles that gave off large amounts of emissions.

The bureau said the city has begun to establish a monitoring network that will be used to detect PM 2.5.

It said the network could be completed by the end of Spring Festival.

http://www.chinadaily.com.cn/cndy/2012-01/07/content_14397365.htm

NW China city with worst air pollution vows change

LANZHOU, Dec. 30, 2011 (Xinhua) -- The top official of a northwest China province has pledged to clean up the sky over the provincial capital after it was named China's city with the worst air pollution by a World Health Organization (WHO) survey published in September.

Lanzhou, a heavy industry city situated in the Yellow River valley in the country's arid northwest, ranked the worst among Chinese cities in the WHO's survey tracking air pollution by the levels of airborne particles smaller than 10 micrometers (PM10) measured in 1,086 cities in the world, mostly between 2008-2009.

Lanzhou's annual PM10 average was 150 micrograms per cubic meter, dramatically higher than the WHO-recommended upper limit of 20 micrograms per cubic meter. The Geneva-based organization says PM10s can cause heart disease, lung cancer, asthma, and acute lower respiratory infections.

In winter, the most polluted season, Lanzhou is typically shrouded in a haze that can block sunlight to the extent that the day is sometimes as dark as the night. Residents generally avoid opening windows, otherwise their furniture will soon be coated in thick dust.

Wang Sanyun, the newly-appointed top official of Gansu province, said that his government "is resolved to win the tough and arduous battle against air pollution."

Wang, secretary of the Gansu provincial committee of the Communist Party of China, told provincial officials Thursday that the government will go after factories releasing pollutants, promote clean energy in public transport, build subways and light rails to reduce car exhaust emissions, and replace coal with natural gas to sustain the city's winter heating system.

Due to an urbanization rush, most cities in China face tremendous challenges in keeping air pollution in check. Only one in the 31 Chinese cities included in the WHO survey had PM10 levels under 50 micrograms per cubic meter, while the vast majority of European and North American cities reported PM10 levels under 50 micrograms per cubic meter.

Many Chinese cities have been periodically enveloped in smog this winter, but the official air quality index typically classifies pollution as "light," deepening public frustration over the quality of air people breathe every day.

Minister of Environmental Protection Zhou Shengxian has urged a prompt overhaul of the current air quality monitoring standard to factor PM2.5 -- the measure of microscopic airborne particles smaller than 2.5 micrometers -- as well as measures of ozone and carbon monoxide into its pollution monitoring system.

http://news.xinhuanet.com/english/china/2011-12/30/c_131335474.htm

UN chief says G-77 "fundamental" for Rio+20

UNITED NATIONS, Jan. 11 (Xinhua) -- UN Secretary-General Ban Ki-moon on Wednesday said that the Group of 77 (G-77 and China) is "fundamental" given the "historic opportunity" of the UN Conference on Sustainable Development (Rio+20) to tackle the main global challenge of building a sustainable world.

"This year we have a historic opportunity to address one of the main challenges facing humanity: building a sustainable world," Ban said at a meeting of the G-77, as Algeria officially took over the chairmanship of the diplomatic group that is comprised of countries of the global south.

With Rio+20 being scheduled for June 20-22 in Rio de Janeiro, Brazil and it being billed as a "once-in-a-generation opportunity to build the future we want," Ban said strategies to foster sustainability on a global scale is critical.

"We need to connect the dots between policy challenges -- climate change, water scarcity, energy shortages, global health, food security and women's empowerment," he said. "Solutions to one problem must be solutions for all."

The G-77 leadership is "fundamental in ensuring that concrete actionable measures are adopted at Rio," said Ban.

He said safeguarding the environment is a fundamental priority of the Rio process, but noted it requires simultaneous action in the economic and social pillars. The challenges loom large, particularly as the debt crisis continues in Europe and elsewhere, unemployment high, inequality growing and social unrest, he said.

Ban highlighted that the UN's Millennium Development Goals (MDGs), a set of eight international development objectives that UN member states have pledged to meet by 2015, "remain a blueprint toward achieving our development objectives."

"We are on the last stretch and we must make the final push to achieve our commitments," Ban said. "Yet, we must also begin thinking about the next steps beyond 2015."

With a "historic opportunity to reshape the way

we think about development," Ban said it is critical to make the most of this moment.

G-77 was established on June 15, 1964 by 77 developing countries signatories of the "Joint Declaration of the Seventy- Seven Countries" issued at the end of the first session of the United Nations Conference on Trade and Development (UNCTAD) in Geneva.

G-77 is the largest intergovernmental organization of developing countries in the United Nations, which provides the means for the countries of the South to articulate and promote their collective economic interests and enhance their joint negotiating capacity on all major international economic issues within the United Nations system, and promote South-South cooperation for development.

<http://english.peopledaily.com.cn/90777/7703186.html>

Durban's lifeline to Kyoto - A new climate change accord leaves much to be desired

January 15 (NST): AT dawn last Dec 11, at the climate talks in South Africa, the Malaysian delegation huddled to consider a compromise agreement produced after two weeks of negotiation, including 50 hours of non-stop horse-trading beyond the deadline.

It appeared that the 194 United Nations member countries represented in Durban, including the main polluters, had arisen from their narrow national interests and, for the first time, committed to create a legally-binding agreement to reduce the emissions of greenhouse gases (GHG) that cause global warming.

To some, the "Durban platform" was a milestone. To others, a big letdown as it failed to go far enough. But importantly, it was a big step forward after the failure of the 2009 climate change summit in Copenhagen. The deal included the following:

THE Kyoto Protocol is to be extended beyond 2012, by either five or eight years;

THE parties agreed to work to negotiate a new, more comprehensive global pact (although the final language was open to interpretation, saying the parties would "develop a new protocol, another legal instrument or agreed outcome with legal force that will be applicable to all parties to the UN climate convention").

The new instrument is to be adopted by 2015 and be implemented from 2020; ESTABLISHMENT of a Green Climate Fund (GCF) to help poorer countries combat the effects of climate change: RM310 billion annually from wealthy countries by 2020. Germany has pledged RM200 million and Denmark RM60 million for the GCF's "operationalisation". Longer term funding mechanisms have yet to be worked out.

The outcome of the conference was a milestone, achieving what more than a decade of climate negotiations had failed to deliver. The compromise stipulated that every country, no matter how rich or poor, weak or strong, would cut its GHG emissions under a global pact with "legal force".

The Kyoto Protocol, the main elements of which expire this year, legally binds signatory developed countries to emission cuts. Omitted, however, are the world's two largest emitters, China and the United States.

The Durban accord provides the platform for negotiation of a successor to Kyoto. Over the next few years, tough negotiations are anticipated as countries thrash out basic issues such as how many years the second Kyoto "commitment period" will last and how deep the emissions reduction will be.

Apprehensions abound on the vagueness of the legal nature of the new instrument: the European Union and its allies champion a "legally binding" instrument; at the insistence of India and China, the final words agreed at Durban morphed into the softer "agreed outcome with legal force".

Negotiators will have a tough time interpreting what "agreed outcome with legal force" means but Durban is still a breakthrough as it provides a mechanism for curbing GHG emissions beyond the Kyoto Protocol, which currently

applies to countries emitting a mere 15 per cent of global emissions.

For developing countries like Malaysia, the Durban platform, though a major step forward, includes disappointments.

An important missing element, so eloquently framed in the Rio Declaration hammered out 20 years ago, is the principles of equity or common but differentiated responsibilities (CBDR).

This was the basis of Prime Minister Datuk Seri Najib Razak's declaration at the 2009 Copenhagen climate summit, where Malaysia committed to a 40 per cent reduction in the intensity of emissions per unit of gross domestic product by 2020, using 2005 levels as a baseline, subject to technology transfer and new and additional funding from developed countries.

Indeed, CBDR was also invoked during the Durban negotiations, especially by India, which feared that the imposition of costs it could ill afford would inhibit its ability to lift millions out of poverty through development.

According to Meena Raman of the Third World Network, quoting senior negotiators and several lawyers, despite the explicit absence of the words "equity" and "CBDR" in the text, the coming "legal instrument" or "agreed outcome with legal force" under the UN Framework Convention on Climate Change must be consistent with existing principles and provisions of the convention. Therefore, the principles of equity and CBDR can be implied to apply. However, this view can be expected to be challenged by several developed countries when negotiations start.

Perhaps the important outcome of Durban for developing countries: the GCF to help undertake programmes to combat global warming.

Debates arose as to whether the Fund should be parked at the UN, at the Global Environment Facility Secretariat, or controlled by an independent body, similar to the administration of the Global Fund to Fight AIDS, Tuberculosis and Malaria. The latter idea is roundly rejected by the consensus-minded UN member states.

Despite the optimism generated in Durban, one must keep in sight the dire situation of the environment today.

A recent report released by the Global Carbon Project, an international collaboration of scientists, indicates that emissions from carbon dioxide from fossil fuels, the main GHG, had jumped 5.9 per cent in 2010, the sharpest one-year rise on record. Carbon emissions cumulatively had risen by an alarming 49 per cent since 1990, higher than any previous estimate.

It is, therefore, quite obvious that efforts to arrest the gradual warming of the earth arising from human activities cannot be left to a global political compromise alone.

Countries must now start to prepare themselves for the green economy, defined by the United Nations Environment Programme as an economy that improves human well-being and social equity while significantly reducing environmental risks and ecological scarcities.

Simply put, a green economy is characterised by low carbon emissions, highly efficient use of resources and social inclusiveness.

While the main responsibility rests with the big emitters, individual and small nations like Malaysia will also have to play their part.

<http://www.nst.com.my/opinion/columnist/durban-s-lifeline-to-kyoto-1.30085>

Climate Talks Should Fix CO2 Price, Not Cap

January 10 (Bloomberg): United Nations climate envoys should set a carbon price rather than fix a global cap on greenhouse-gas emissions, cutting the complexity of international negotiations, said a neuroscientist.

Developing nations may accept a global harmonized carbon price as long as they receive the money from setting that amount as well as a portion of funds raised by developed nations that have mostly caused climate change, said David Silverstein, a neuroscientist with an interest in climate negotiations. He's a researcher and teacher at the Royal Institute of Technology in Stockholm.

“You could set a harmonized global floor price or tax rate in a year,” Silverstein said in a telephone interview. “You have some sort of scaffolding to allow global climate finance to develop in a more structured way.”

The 1997 Kyoto Protocol, which set an emissions cap for more than 30 developed nations in the five years through this year, was never ratified by the U.S. and didn't include China and India, the world's two most populous nations. UN envoys have failed to decide how to extend or replace that agreement the past 14 years.

A key problem with new caps is that scientists can't agree what limit is needed to protect the climate, Silverstein said. “If you are going to have to keep adjusting the limit, then you might as well just change the price floor or tax.”

The complex wrangling about how money from the price should be used is better solved by national governments rather than international negotiations, he said. “If you try to scale complexity to a global level, you could potentially get a mess.”

'Difficult Sell'

It's probably better to allow nations to determine how to implement the price, he said. “I agree, though, that it's a little bit of a difficult sell.”

His plan would potentially set a price of \$8 a ton and jump \$8 a year, reaching \$64 in 2020. Richer nations would contribute to a Green Climate Fund for use by poor nations based on their historical responsibility for heat-trapping gases, as well as their wealth. The rising price will quickly make non-fossil-fuel technology viable, cutting emissions, according to the plan.

The U.S. would contribute 50 percent of the Green Climate Fund. At a price of \$8, the world's biggest economy would contribute \$1.65 a ton, or 21 percent, helping contribute \$100 billion a year by 2020 from rich nations to poor for adaptation and mitigation. The rest of the revenue would be used by the U.S. to address climate change internally.

Avoiding Sanctions

The U.S. will want to avoid potential penalties and compensation claims, Silverstein said. “Ultimately there could be trade sanctions that

could be employed” by developing nations that experience climate-change related disasters, he said. Emerging nations including China and India would forgo use of the fund and may start contributing to it as they become wealthier, he said.

The plan contrasts with one proposed by Mutsuyoshi Nishimura, a former negotiator for the Japanese government, which would set a global limit of 660 billion tons of carbon dioxide equivalent in the four decades through 2050 from 2010. Global man-made emissions need to drop to about 32.6 billion tons in 2035 from 47.1 billion tons in 2009, the International Energy Agency in Paris said in November.

The world could adopt the global harmonized price at least for the next several years while it negotiates a new cap, because the current growth in emissions represents a serious risk to the climate, Silverstein said.

Officials from almost 200 nations agreed on Dec. 11 at UN climate talks in Durban, South Africa, to seek a global deal by 2015, with the participation for the first time of the U.S., China and India. “Perhaps this makes it more likely that all nations will accept the responsibility to adopt a common carbon price,” Silverstein said.

<http://www.bloomberg.com/news/2012-01-10/climate-talks-should-fix-co2-price-not-cap-neuroscientist-says.html>

Low Carbon Development

Officials weighing green benefits of carbon taxation

January 6 (China Daily): BEIJING - China is considering levying a carbon tax within the next three years to tighten its regulations on polluting industries and put the economy on a greener path.

A draft of a new system of taxation has been submitted by the Fiscal Science Research

Center of the Ministry of Finance to the ministry for review. The plan would impose a tax on emissions of greenhouse gases, Su Ming, deputy director of the center, said on Thursday.

Su said the tax is likely to be charged at a rate of 10 yuan (\$1.59) for each ton of carbon dioxide that a business or other operation discharges. That rate is expected to increase gradually over time.

The main targets of the tax will be large users of coal, crude oil and natural gas, and tax cuts will be given to companies that take steps to reduce their emissions, Su said.

Jiang Kejun, a researcher with the National Development and Reform Commission's Energy Research Institute, who helped draft the tax proposal, said the tax is likely to be collected only from producers and wholesalers of fossil-fuel based energy. This will make it easier to collect the tax.

"But it may still raise the price of energy," Jiang said.

China emitted 8.33 billion tons of carbon dioxide in 2010, a quarter of total global emissions, according to a report by the UK energy company BP PLC. During the Durban climate talks last year, China pledged to reduce the amount of carbon dioxide produced for each unit of GDP by 17 percent by 2015.

Even so, the recent Central Economic Work Conference determined that a greater priority should be placed on reforming the country's tax system in 2012 and on researching the possible effects of imposing taxes to protect the environment.

"But 2012 may not be a good time to introduce carbon taxes, considering the risk (they might introduce) of slowing economic growth," Su said.

He said the taxes will begin to be collected by the end of the 12th Five-Year Plan (2011-15).

"The carbon tax will bring many benefits," Jia Kang, who heads the finance ministry's research center, was quoted as saying by the Economic Information Daily.

"One is to raise companies' environmental costs and force them to improve their production technology."

Meanwhile, the additional revenue from a carbon tax will make it easier for the government to lower other sorts of taxes imposed on businesses, such as income taxes, he said.

Lin Boqiang, director of Xiamen University's China Center for Energy Economics Research, said there are still details to be decided about the plan. "Unlike the measurement of pollutants, carbon emission can be found in all parts of the value chain," Lin said. "So a tracking system will have to be established to carry out the plan."

Late last year, the National Bureau of Statistics said that indexes measuring emissions of greenhouse gases and power consumption will be published periodically as a test this year.

Lin said there are still disputes over the ratio for the proposed tax. He said environmental protection authorities are calling for 20 yuan to be charged for each ton of carbon dioxide emitted.

He said the tax should not be viewed as way of raising money.

"The carbon tax should be a means of cutting emissions rather than a source of fiscal revenue," Lin said.

Su with the finance ministry still supports the introduction of a carbon tax even though its burden may be transferred to users in the end. "It is time to let people know they have to pay for what they use," Su said.

http://www.chinadaily.com.cn/cndy/2012-01/06/content_14389963.htm

China looking at carbon tax, official says

January 12 (MSN NEWS): China's lead negotiator on climate change says the world's largest emitter is considering imposing a tax on carbon to reduce the use of dirty energy as its economy grows.

Su Wei, on a visit to Washington, said that the fast-developing Asian power was looking at the impact of an outright tax on carbon and whether it would overlap with China's plans for a pilot scheme on carbon emissions trading.

"I think the carbon tax is one of the instruments that can be used," Su Wei told reporters on Wednesday during a visit to the World Resources Institute, a think-tank.

Su, director general of the climate change department at China's powerful National Development and Reform Commission, said officials had not taken a final decision and were debating whether to use the term "carbon tax".

"Whether we call it a carbon tax - or environment tax or resource tax or even fuel tax - we have lots of tax already. We need to carefully redesign the category and type," he said.

Chinese state media said last week that a proposal submitted to the finance ministry would impose a tax of 10 yuan (\$A1.55) per tonne of carbon within the next three years, targeting large users of coal, oil and natural gas.

In a speech at the institute, Su said China was also looking at a plan to put voluntary labels on products that are low-carbon "in order to try to give a clear signal to business and industry".

China has surpassed the US as the largest emitter of carbon, which many scientists say is contributing to the world's rising temperatures and extreme weather.

China has pledged to reduce the intensity of its carbon emissions but it says it is not realistic to reduce its carbon emissions in net terms while lifting millions of its citizens out of poverty.

The European Union, which has been at the forefront of action on climate change, has balked at imposing a direct tax on carbon and instead has a "cap and trade" system that restricts emissions and allows companies to trade in credits for action.

Australia in November imposed a carbon tax, which at \$A23 a tonne is much higher than

China's proposal. Australia plans to move to a trading system in 2015.

Proposals for nationwide action on climate change have died in the US Senate. But California and East Coast states have launched their own trading initiatives.

<http://news.ninemsn.com.au/world/8401840/china-looking-at-carbon-tax-official-says>

China orders 7 pilot cities and provinces to set CO2 caps

January 13 (Reuters) : BEIJING - China has ordered seven provinces and cities to set caps on greenhouse gas emissions in preparation for the launch of local pilot carbon markets, according to a notice issued by the country's state planning agency on Friday.

The National Development and Reform Commission requested the cities of Beijing, Tianjin, Shanghai, Chongqing and Shenzhen, along with the provinces of Hubei and Guangdong, to set "overall emissions control targets" and submit proposals as to how the targets will be allocated.

The provinces and cities have also been ordered to set up a dedicated fund to support the project and to draw up comprehensive implementation programs, the notice said.

An implementation plan drawn up by Guangdong, China's biggest CO2-emitting province, has already been approved by the State Council, the country's cabinet.

It commits the province to increasing the share of non-fossil fuels to 20 percent of total energy consumption by 2015, and to cutting the amount of carbon dioxide produced per unit of economic growth -- carbon intensity -- by 19.5 percent.

China as a whole has pledged to reduce carbon intensity by 17 percent over the 2011-2015 period, and said it is committed to using "market mechanisms" in order to reach the target.

It aims to bring 2005 levels of carbon intensity down 40-45 percent by 2020.

Besides the seven official pilot projects, there are more than 100 entities across the country trying to establish their own regional CO2 emissions trading platforms, including the coal-rich province of Shaanxi and the northeast port city of Dalian.

<http://www.reuters.com/article/2012/01/13/us-china-carbon-idUSTRE80C0GZ20120113>

Danish, Chinese cities pair up for low-carbon target

COPENHAGEN, Dec. 28, 2011 (Xinhua) -- Soenderborg, a zero-carbon targeted town in south Denmark, and China's Baoding city forged a Friendship City relationship Wednesday to find joint climate and green energy solutions, said a joint statement by the two cities' municipal authorities.

A formal arrangement signed by the two sides will aim to further cooperation on climate and energy issues, social development, educational and cultural exchange, and tourism between the two partners, according to the statement.

Before this, Soenderborg and Baoding had already shared common goals in becoming low carbon urban centers, while acting as hubs for green technology businesses.

"Soenderborg being a major city in Southern Denmark and Baoding being a major city in Northern China and gateway to Beijing and Tianjin; the new Friendship City relationship will be a strong base for our joint communities creating new climate solutions and cultural cooperation in years to come," said Aase Nyegaard, mayor of Soenderborg, in the joint statement announcing the partnership.

Baoding, a city of 11 million inhabitants located 140 kilometers south of Beijing, is well-known for its "China Electrical Valley," a cluster of photovoltaic and renewable energy industries.

It is also recognized as a Chinese city that has taken the lead in developing green technologies and businesses, while investing heavily in low carbon development strategies.

Soenderborg is home to a number of famous Danish enterprises focused on low energy and energy-efficient technologies.

Under a roadmap known as Project Zero, the city wants to become carbon neutral, that is, reduce to zero the net carbon dioxide emissions of each of its 77,000 inhabitants, by 2029.

The city has already developed extensive urban heating and electric power networks based on renewable sources, and is investing in low-energy housing and industrial complexes.

"We're much impressed with the Zero Carbon Masterplan in Soenderborg and what Soenderborg has achieved on its Zero Carbon development," said Ma Yufeng, Executive Vice-Mayor of Baoding, in the statement.

"This is valuable experience for our city to learn from. Baoding has the same intention as Soenderborg to grow low carbon. We can achieve much greater goals and start more extensive cooperation with a formal Friendship City relationship," he added.

Initiated in 2008 by the World Wildlife Fund (WWF), a global nature protection organization, cooperation between Soenderborg and Baoding was formally agreed in 2010, with the aim of sharing best practices in climate management and jointly developing new climate solutions.

"Such relationship with full cooperation in all aspects of city development is the cornerstone of an increasingly important bilateral relationship between Denmark and China," said Friis Arne Petersen, Denmark's Ambassador to China, in the statement.

The cities will celebrate their Friendship City relationship in April 2012, when a business delegation from Soenderborg, led by Nyegaard, visits Baoding.

http://news.xinhuanet.com/english/china/2011-12/29/c_131332232.htm

China airlines won't pay EU carbon tax: Industry body

January 4 (Reuters) - China's airlines will refuse to pay any charges under the European Union's new carbon trading scheme, while other Asia Pacific carriers, already battling a weak travel market, are likely to pass on the extra cost to passengers.

The EU's Emissions Trading Scheme (ETS) was launched in 2005 as one of the major pillars of the bloc's efforts to combat climate change. From January 1, all airlines using EU airports are included in the cap-and-trade scheme.

"China will not cooperate with the European Union on the ETS, so Chinese airlines will not impose surcharges on customers relating to the emissions tax," Cai Haibo, deputy secretary-general of the China Air Transport Association (CATA), told Reuters by telephone on Wednesday.

CATA represents the country's four major airlines: flag-carrier Air China Ltd, China Southern Airlines, China Eastern Airlines and Hainan Airlines.

Chinese airlines would consider taking legal action against the EU over the move to charge for carbon emissions on flights to and from Europe, Cai said, adding they would take their time on this, mindful that U.S. airlines recently lost a legal challenge against the ETS, and given that collection of the tax from airlines will not be until March 2013.

Australia's Qantas Airways has said it also plans to take legal action against the scheme.

"We are now walking on two legs -- first, we would not rule out the chance of taking legal action and, second, to resort to the government for retaliatory measures. Several departments have been looking into this," Cai said.

CATA estimates the scheme will cost Chinese airlines 800 million yuan (\$123 million) in the first year and more than triple that by 2020.

HIGHER PRICES

Germany's Lufthansa, the world's second-largest long-haul carrier after Dubai's Emirates,

warned passengers on Monday to brace for higher ticket prices as it refuses to shoulder the costs of the carbon trading scheme.

The EU says its ETS, which already applies to other industries, is the fairest way to cope with aviation's contribution to global warming and cuts through years of inconclusive efforts to come up with a worldwide alternative.

Hong Kong-based Cathay Pacific Airways Ltd and some other Asian airlines, facing a sluggish economy and weak cargo demand, said they may impose surcharges or increase airfares to counter the ETS impact.

Delta Air Lines, the No. 2 U.S. carrier, slapped a \$3 surcharge each way on tickets for flights between the United States and Europe.

"It's inevitable that increased costs will be passed on to passengers. We will share the details at the appropriate time," said Carolyn Leung, a spokeswoman for Cathay Pacific, whose CEO has said the ETS would add about HK\$50 (\$6.44) to a ticket between Hong Kong and Europe.

Singapore Airlines Ltd (SIA), the world's second-most valuable airline, said it would try to offset the impact of the ETS by improving fuel efficiency and reducing its carbon emissions, which would lower the carbon charges.

"However, we're not yet ruling out any options for recovering the additional cost," SIA spokesman Nicholas Ionides said in an emailed response to a query for this article.

Tony Tyler, director general of the International Air Transport Association (IATA), has said the ETS would cost airlines 1.2 billion euros (\$1.6 billion) this year, and he warned that airlines could struggle to pass this on to passengers in a weak travel market.

IATA, whose 230 members carry more than 93 percent of scheduled international air traffic, forecast a 29 percent drop in the industry's profit this year to \$4.9 billion, dented by the weak global economy and high fuel prices. (\$1 = 7.7681 Hong Kong dollars) (\$1 = 0.7661 euros)

<http://www.reuters.com/article/2012/01/04/us-airlines-carbon-tax-asia-idUSTRE8030MC20120104>

Low-carbon concept counts in progress

December 19, 2011 (China Daily): When the United Nations Climate Change Conference opened in Durban, South Africa earlier this month, the Chinese government's resolve and endeavor to actively respond to the global issue was once again evident. Given the country's impressive cohesion and willingness to shoulder greater international responsibilities, there is no reason to doubt the sincerity of the nation's efforts to address climate change.

In fact, China's endeavor to protect the environment has moved beyond industrial policies and pollution control to deeper and broader aspects in recent years. The whole of society is being encouraged to adopt a low-carbon lifestyle and different localities are now more environmentally minded when mapping out plans for local economic and social development.

More and more officials at the local level now realize that climate change is not only a global and national issue but also a challenge they have to face in their everyday work. Indeed, to a certain extent, whether China can fulfill its pledges in emission cuts depends on whether different localities can effectively do their part.

In this regard, it is imperative to build up the capacity of local governments to pursue sustainable social and economic development. For many years, they have been reliant on a development pattern that emphasizes high GDP growth, ignoring the environmental costs. Local officials need a totally different mindset and new development mode so that they can address the challenge of climate change.

It is, therefore, heartening to see China's efforts to work with international partners to strengthen local governments' abilities to adapt more effectively to climate change. For example, officials in charge of local social and economic planning in northwest Qinghai province, Harbin of northeast Heilongjiang province and Hefei of East China's Anhui province have benefited from a bilateral cooperation project between China and Australia.

The project is funded by the Australian government and jointly implemented by China's National Development and Reform Commission

(NDRC) and the Trade to Future Training Center.

"Through a series of workshops and field visits, the participating Chinese officials have been able to form their own strategies to tackle climate change at the advice of Australian experts and based on experience drawn from their Australian counterparts," said Huo Enquan, deputy director of NDRC's international cooperation center.

Chinese localities and agencies have also formed partnerships with Ku-Ring-Gai Council of New South Wales in Australia, which has developed a climate change adaptation-planning model that can be modified for use by any city.

"Our model is a form of cost benefit analysis that allows decision makers to better understand how a planned adaptation will impact the local area and reduce the risks associated with the changed weather patterns in the future," said Jenny Scott, sustainability program leader with Ku-Ring-Gai Council.

Such cooperation will give different localities in China a bigger role in shoring up the country's climate change goals.

China aims to cut carbon emissions by 40-45 percent in 2020 from the 2005 level. The central government has also vowed to increase the proportion of non-fossil energy by 15 percent in 2020. All of which demand governments at the local level make their due contributions to the national endeavor.

There is an added bonus in this, as by actively adapting to climate change, local governments will also make their products more competitive. Hence, localities need to come up with their own strategies to address climate change. They need to adjust their economic and energy structure and change their development mode.

A growth mode relying on quantity rather than quality is futureless and must be abandoned. Localities need to ensure that low-carbon and environmentally friendly development are at the heart of their plans.

http://www.chinadaily.com.cn/cndy/2011-12/19/content_14284331.htm

China shifts focus to green industry

January 2 (The Australian): CHINA is opening new areas of its economy to foreign investors and putting more emphasis on emerging sectors such as green energy, while downgrading support for traditional industries such as the automotive industry.

The changes reflect a shift in the country's economic strategy as leaders seek to move away from heavy manufacturing towards hi-tech and more environmentally friendly industries.

The National Development and Reform Commission and the Commerce Ministry have announced new guidelines for investment, to come into effect on January 30.

These key central government agencies say China wishes to encourage investment in strategic emerging industries. They include energy saving and environmentally friendly technologies, new-generation information technology, biotechnology, high-end equipment manufacturing, alternative energy, advanced materials, recycling and alternative-fuel cars.

New methods to extract fossil fuels will get more favourable treatment. Foreign investors will now be allowed to form joint ventures with Chinese companies for the exploration and development of shale oil, oil sands, heavy oil, shale gas and seabed gas hydrate.

The encouragement comprises opening new sectors that previously precluded foreign investment, and lifting the caps on the proportion of foreign capital allowed in ventures in other sectors.

Foreign firms and other organisations will be allowed to invest in Chinese medical institutes for the first time.

China Daily says the new guidelines are in keeping with proposals in the new five-year plan, the 12th, "which seeks to lay the foundation for a more innovative and greener economy".

Kong Linglong, director-general of the NDRC's department of foreign capital and overseas

investment, said that from the announcement, "we can tell the way in which the Chinese government would like to transform its industrial structure".

Another message, he said, was that greater value was now being placed on the quality of investment than on its scale.

Wang Zhile, director of the Commerce Ministry's research centre for transnational co-operation, said: "This indicates China's strong commitment to opening its market wider. It's absolutely a positive signal."

The agencies making the announcement said the halt on new foreign investment in the car industry -- except for hybrid and other green vehicles -- was being introduced "because of the need for the healthy development of domestic carmaking".

The government is moving to stop foreign investment in polycrystalline silicon -- used for electronics and solar cells -- and coal chemicals, which come from distilling coal tar, "due to concerns of industrial overcapacity".

There have been growing concerns about a glut in the manufacture of solar panels in which China has become globally dominant, driving prices below cost.

Foreign firms were previously limited to building or operating oil refineries that distill less than 160,000 barrels of oil a day. That now rises to 200,000 barrels.

Zhang Xiaoji, a senior researcher at the State Council's development research centre, said the increased restrictions "generally apply to industries that have excessively large capacities and that pollute the environment".

In the first 11 months of last year, China attracted \$102.3 billion in foreign direct investment, up 13 per cent from the same period of 2010.

And it approved the registration of 25,086 foreign companies, up 3.23 per cent.

But not many of these companies are Australian. The Australia-China economic relationship, which has soared in recent years, remains dominated by the Australian sale of resources and purchase of manufactures, and Chinese

investment in Australia has leaped ahead of Australian investment in China, again overwhelmingly in resources.

According to the Department of Foreign Affairs and Trade, Australia has invested just \$11.8bn in China to date -- about the same as it has invested in Luxembourg.

Frank Tudor, national president of the Australia China Business Council, told The Australian the easing of controls on foreign investment was welcome news.

"Australian companies operating in the areas of renewable energy and sustainable development should be assessing opportunities in this space," he said.

There was a role for the federal government, for Austrade, for the ACBC and for industry peak bodies "to raise awareness and facilitate introductions" in these areas "especially in western China", the Beijing government's priority area for new investment.

In its announcement, Beijing pledged to "roll out a finely tuned policy for the central and western regions" at a later stage.

Mr Tudor said Australian small and medium enterprises "are largely missing in action" in China, "due partly to inertia, partly to concerns about intellectual property protection, and partly to lack of confidence".

"The investment space is hotly contested," he said.

"The rise of the Chinese middle class and the new focus on the quality dimension of growth provide a once in a lifetime opportunity to enter China."

<http://www.theaustralian.com.au/business/world/china-shifts-focus-to-green-industry/story-e6frg90o-1226234392377>