中国“十二五”规划与低碳发展
China’s 12th Five-Year Plan and Low Carbon Development

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一、为什么要提出低碳发展？

I. Why Low Carbon Development?

1、低碳发展是中国经济社会发展的内在需要。1. China's internal socio-economic development needs low carbon development

——中国是一个资源相对短缺的国家，石油、铁矿石、铜矿大量进口--
- China is a relatively resource-scarce country with large oil, iron ore and copper imports

——中国的工业化和城市化还面临着严重的环境压力，在中国的一些区域，酸雨的沉降量超出了环境容量。

- Industrialization and urbanization in China is also facing severe environmental pressures; in some regions in China, acid rain deposition has exceeded the absorption capacity of the environment

——资源节约和环境保护是中国的基本国策，低碳发展在降低碳排放强度的同时，也有利于既有战略目标的实现。

- Resource saving and environmental protection is China's basic national policy; low carbon development will help to not only reduce carbon emission intensity but also achieve China's strategic objectives

2、低碳发展是中国主动应对气候变化的关键举措。2. Low Carbon Development is a key measure to address the climate change concern

——中国生态环境脆弱，自然灾害频发，气候变化对中国也造成了巨大损失。

- With a fragile ecological environment and frequent natural disasters, climate change has caused huge losses in China

——中国是一个负责任的发展中大国，中国政府提出宏伟目标：

- China is a responsible major developing country, and the government has put forward an ambitious goal

——与2005年相比，2020年单位GDP二氧化碳排放下降40-45%

- CO2 emissions per unit GDP will reduce by 40-45% in 2020 compared to 2005

——2020年非化石能源的比重达到15%

- The percentage of non-fossil fuel to reach 15% by 2020

——森林覆盖率明显提高

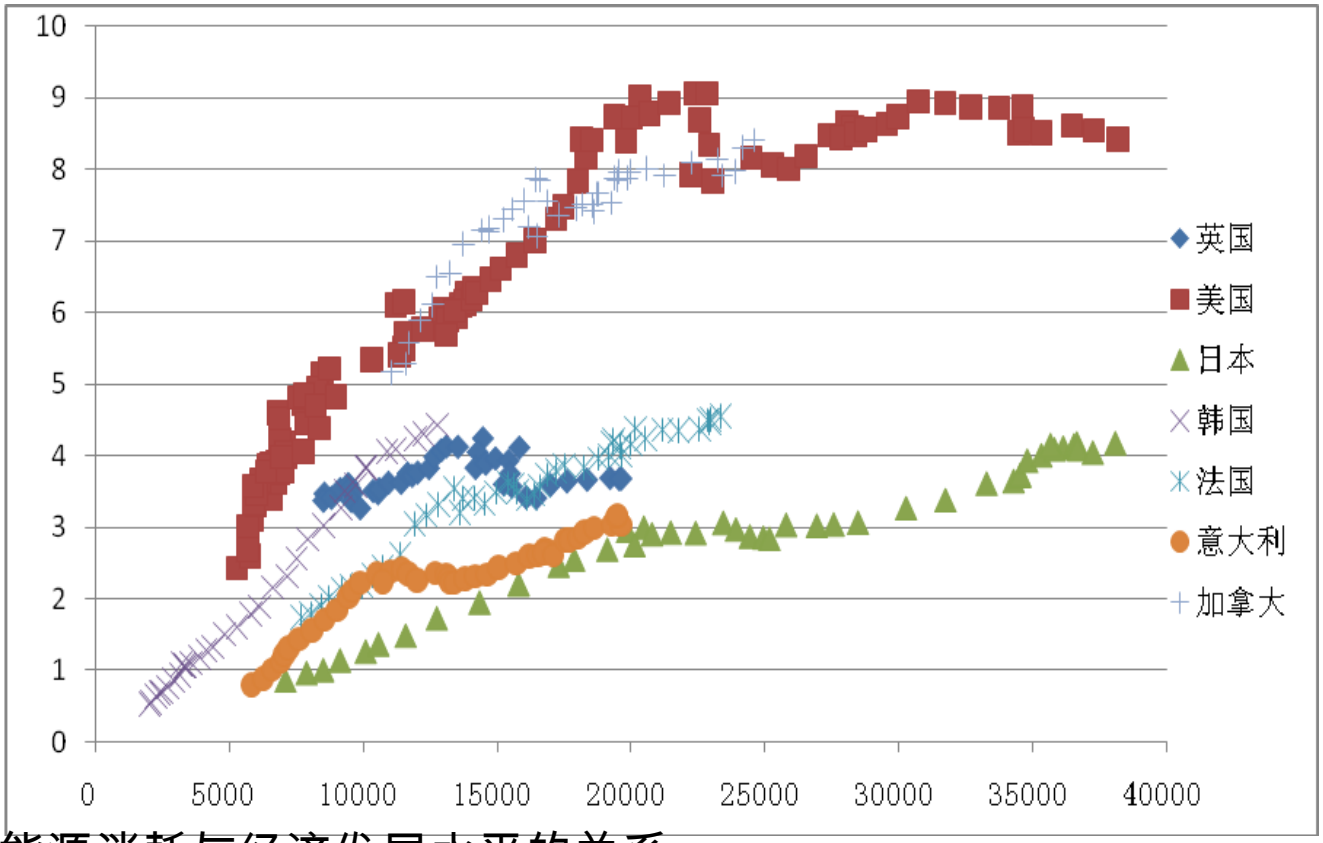
- Forest coverage to increase significantly

二、中国低碳发展的内涵和困难

II. China's Low Carbon Development Context and Difficulties

1、低碳发展内涵：降低单位GDP能耗的强度，而非绝对减少碳排放。

1. Low Carbon Development Context: reducing energy consumption per unit of GDP rather than absolute reduction in CO2 emission



人均能源消耗与经济发展水平的关系

The relationship between per capita energy consumption and economic development

2、低碳发展的困难和挑战

2. Difficulties and Challenges of Low Carbon Development

——中国仍处于工业化和城市化快速发展的时期,2011年城市人口比重刚超过50%,经济增长主要靠工业增长拉动，能源消耗增长的内在动力很强。

- China is still experiencing rapid industrialisation and urbanisation, with proportion of urban population just over 50% in 2011. Economic growth is still dependent on industrial development and energy consumption increase is still driven by strong domestic demand

——以煤为主的能源结构，煤炭占中国能源资源的90%以上和能源消费的70%左右。

- China has a coal-dominated energy structure – coal accounts for more than 90% of China's natural resources and around 70% of energy consumption

——为实现节能减排和低碳发展，花费了较大的代价，“十一五”期间（2005-2010），为实现单位GDP能耗下降20%的目标，关停了7600万千瓦的小火电，7200万吨的落后炼钢能力和1.2亿吨的落后炼铁能力以及3.7亿吨的落后水泥能力，经济损失和就业机会损失较大。

- China has paid a great price in pursuing a “energy conservation and emission reduction” strategy and low carbon development. During the 11th FYP (2005-2010), China has shut down 76 million kilowatts of small thermal power stations, 72 million tonnes and 120 million tonnes of backward steel capacity and iron smelting capacity respectively, and 370 million tonnes of backward cement capacity, causing huge economic loss and loss of employment opportunity

三、“十二五”期间如何实现低碳发展
III. Low Carbon Development durıng the 12th FYP

1、“十二五”期间目标（2010-2015）
1. The targets of 12th FYP (2010-2015)

——单位GDP二氧化碳下降17%

- Per unit GDP CO2 emission to reduce by 17%

——非化石能源比重11.4%（2010年为8.3%）

- Proportion of non-fossil fuel to reach 11.4% (8.3% in 2010)

2、大力推进节能

2. Vigorously Promote Energy Conservation

——单位GDP能耗下降16%

- Energy consumption per unit GDP to reduce by 16%

——实施节能减排重点工程，财政补贴

- Carry out major energy conservation and emission reduction projects through financial subsidies

——更严格的能效标准：新建工程，建筑、重要通用设备和家用耐用消费品，研究引入领跑者计划

- Introduce more stringent energy efficiency standards: new construction projects, buildings, important general-purpose equipment and household consumer durables, and to introduce 'Leadership Programme'

——大力发展节能合同服务管理（ESCO）

- Vigorously develop energy-saving contract service management (ESCO)

3、加快发展可再生能源
3. Accelerate the Development of Renewable Energy

预计到2015年

Estimated by 2015

——风电装机达到100GW（2010为40GW）

- Wind installed capacity to reach 100GW (40GW in 2010)

——太阳能装机达到15GW（2010为0.3GW）

- Solar installed capacity to reach 15GW (0.3GW in 2010)

4、进一步完善能源价格机制
4. Further improve Energy Pricing Mechanism

——改革电价形成机制,推行居民用电阶梯电价
- Energy pricing mechanism reform; implementation of residential electricity price ladder

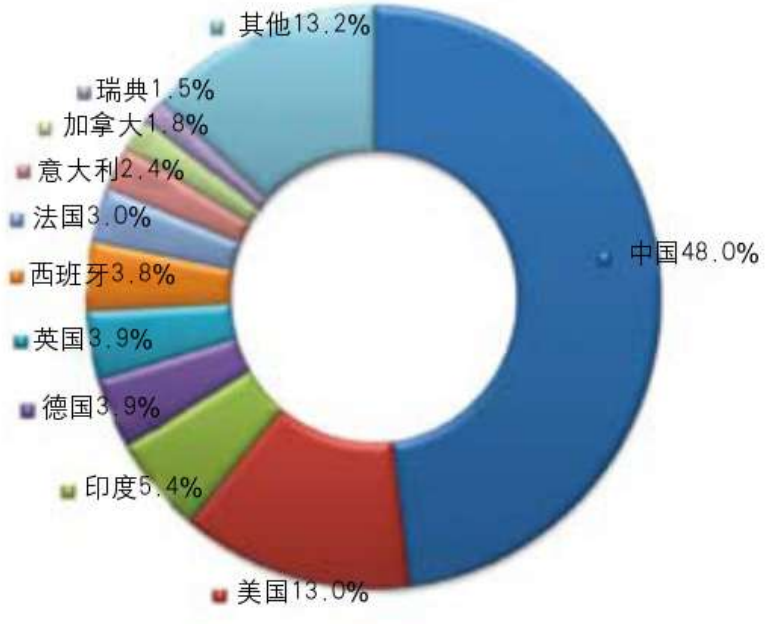
——改革天然气价格形成机制
- Natural gas pricing mechanism reform

——进行碳交易试点
- Carry out CO2 emission trading pilots

5、大力发展绿色低碳产业
5. Development of green and low carbon industries

中国在可再生能源产业化和部署应用上走在世界前列。2010年中国的风电装机总量，新增风电装机和光伏电池产量均据世界第一。China leads the world in renewable energy industry and deployment. In 2010, China was world's number one in total installed wind capacity, newly installed wind capacity and solar PV cells production

2010年全球风电装机比例
2010 Global Installed Wind Capacity



2010年全球新增风电装机比例
2010 Global Newly Installed Wind Capacity

2010年全球光伏电池产量为20.5GW，中国产量为10GW
In 2010, global and China's PV cells production were 20.5GW and 10GW respectively

---技术自主，水平明显提升

风电、光伏技术实现自主

技术水平接近世界前沿

-Indigenous technology and technical standard

Indigenous technology in wind power and solar PV

Technical level close to the world's most advance

---价格大幅下降，价格优势明显

风电机组价格过去五年，每年下降10%，风电价格非常接近火力发电价格。

光伏发电成本 2009 4元/千瓦时，2010年 1元/千瓦时，2015-2020年接近火力发电价格

- Huge reduction in price and obvious price advantage

Wind turbine princes went down by 10% over the last 5 years, wind energy near parity with thermal power electricity

Cost of PV power generation was 4RMB/kwh in 2009, 1RMB/kwh in 2010, close to thermal power price in 2015-2020

---企业竞争力明显提升（世界前十）

风电：2-3家

太阳能光伏： 3-5家

-Competitiveness of enterprises improved significantly (global top 10)

Wind energy: 2-3 enterprises

Solar PV: 3-5 enterprises

——大力发展战略性新兴产业

- Vigorously develop strategic emerging industries

新能源，节能环保，新能源汽车，新一代信息技术，生物医药，新材料和高端装备制造。到2015年占GDP的8%，2020年占GDP的15%。（目前占5%左右）

New energy, energy conservation and environmental protection, alternative-fuel cars, new generation information technology, biotechnology, advanced materials and high-end equipment manufacturing. Total value-added output of new industries expected to account for 8 percent of China's GDP in 2015 and 15 percent by 2020 (currently only around 5%)

——加快服务业发展

- Accelerate the development of the service sector

服务业的比重由2010年的43%提高到2015年的47%，加快物流、咨询、设计、咨询、金融等生产性服务业的发展。

The proportion of service sector to increase from 43% in 2010 to 47% in 2015 through the rapid development of logistics, consulting, design, financial and other producer service sectors

谢谢！

Thank You!