

中国绿色发展与行动

Green Developments and Initiatives in China

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中国绿色发展的目标——“十二五”规划

The Goal of Green Development ——“Twelfth Five-Year” Plan

- 单位GDP能源消耗量比2010年下降16%
- 非化石能源消费比重于2015年提高到11.4%
- 主要污染物排放量继续在绝对量上减少8%-10%
- 单位GDP二氧化碳排放量比2010年下降17%
- 森林覆盖率从2010年的20%提高到22%
- Energy consumption per unit of GDP decreased by 16% compared to 2010
- The proportion of non-fossil energy consumption increased to 11.4% in 2015
- Major pollutants emissions continually decreased by 8%-10%
- CO₂ emissions per unit of GDP decreased by 17% compared to 2010
- Forest coverage rate up from 20% in 2010 to 22%



中国绿色发展的主要表现方面

The Main Area of Green Development in China

- 绿色的经济转型
- 节能与节能产业
- 发展循环经济
- 可再生能源
- 节能与新能源汽车
- 建筑节能
- Green economic transition
- Energy-saving and energy-saving industries
- The development of recycling economy
- Renewable energy
- Energy-saving and new energy vehicles
- Building energy efficiency

中国绿色发展的行动（可再生能源）

China's Green Development Initiatives (Renewable Energy)

- 推进风电发展
- 发展太阳能光伏发电，推动分散式可再生能源发电技术的发展
- 天然气替代煤电
- 发展农村户用沼气
- 推动生物质能发电和生物液体燃料开发利用
-
- Promote wind power development
- Develop solar photovoltaic, and promote the development of distributed renewable energy power generation technology
- Natural gas instead of coal-fired electricity
- Develop rural household biogas
- Actively promote biomass energy power generation and development and utilization of biological liquid fuels

中国绿色发展的行动（风力发电）

China's Green Development Initiatives (Wind Power)

- 2007-2011风电装机规模五年内保持了年均翻一番，2011年底累计达到6236万千瓦
- 瓶颈
 - 弃风限电严重
 - 消纳困难
 - 并网受阻
 - 产能过剩
 - 海上风电发展缓慢
 - 科技创新能力薄弱
- 2007-2011, Wind power installed capacity kept average annual doubling, and up to 62.36 million KWh at the end of 2011
- Bottleneck
 - Severe abandonment and restrictions on wind power
 - Consumptive difficulties
 - Connection to Grid is blocked
 - Overcapacity
 - The slow development of offshore wind power
 - Scientific and technological innovation capability is weak

中国绿色发展的行动（风力发电）

China's Green Development Initiatives (Wind Power)

- 两大举措
 - 财政部、国家发展改革委、国家能源局2012年4月6日联合发布《可再生能源电价附加补助资金管理暂行办法》
 - 国家能源局也下发了《关于印发“十二五”第二批风电项目核准计划的通知》
- Two major initiatives
 - On April 6, 2012 Ministry of Finance, National Development and Reform Commission, National Energy Bureau jointly issued the *Interim Measures for Renewable Energy Tariff Subsidies Additional Fund management*,
 - National Energy Bureau has issued a "about printing of" Twelfth five-year "the second batch of wind power project approval plan notice"

中国绿色发展的行动（光伏发电）

China's Green Development Initiatives (Solar Energy)

- **2009.7.21 “金太阳示范工程”**
 - 2009: ~300MW
 - 2010: ~200MW
 - 2011: ~700MW
- **2013, 集中式光伏与分布式光伏两种发电补贴方式。补贴来源于可再生能源发展基金。**
 - 集中式光伏补贴0.75-1元/千瓦时
 - 分布式光伏发电电价补贴为0.35元/千瓦时
- **2009.7.21 Golden-sun Demonstration Project**
 - 2009: ~300MW
 - 2010: ~200MW
 - 2011: ~700MW
- **2013 Two types of power generation subsidies: concentrated photovoltaic and distributed photovoltaic. Subsidies comes from the Renewable Energy Development Fund**
 - 0.75~1 RMB/KWh for concentrated photovoltaic
 - 0.35 RMB/KWh for distributed photovoltaic

中国绿色发展的行动（生物质能源）

China's Green Development Initiatives (Biomass Energy)

“十二五”期间

- 生物质能发电装机容量规模确定在1300万千瓦。意味着，“十二五”末要增加500至700个生物质能发电厂。
- 国家拟投资2636亿元建设城市垃圾处理设施。预期到2015年，我国垃圾焚烧发电厂还将增加384座，全国城镇生活垃圾焚烧处理设施能力将占无害化处理总能力的35%以上
- 电价补贴：RMB0.25/kwh，15年

During “Twelfth five-year” period

- China's biomass power generation capacity size will up to 13 million kilowatts, which means that the number of biomass power plant will increase 500 to 700 at the end the “Twelfth five-year”
- China will invest 263.6 billion RMB to build urban garbage disposal facilities. Expected by 2015, the waste incineration power plants will be increased by 384, the urban living garbage incineration facilities ability will account for more than 35% of the total capacity of innocent treatment
- Price subsidies: RMB0.25/kwh, 15 years



中国绿色发展的行动（中国的碳交易市场）

China's Green Development Initiatives (The Carbon Market in China)

- 三部分内容
 - 构建碳市场的基本路径 
 - 建立碳市场的基本步骤 
 - 设计碳市场的基本制度 
 - 碳市场发展现状 
- Three contents
 - Build the basic paths of Carbon Market
 - Establish the basic steps of Carbon Market
 - Design the basic system of Carbon Market
 - Development status of carbon market

构建碳市场的基本路径

Build the Basic Path of the Carbon Market

自上而下与自下而上混合的构建方式

- 国内外减排压力，需要尽快建立一个碳市场
- 不具备直接构建全国性强制碳市场的条件
- 不具备建立一整套完善的强制碳市场的立法能力
- “干中学”，边实践边总结经验

Top-down and bottom-up combination way of building

- Carbon market need to be established as soon as possible under the emission reduction pressure from domestic and abroad
- Immature environment to build national mandatory carbon market directly
- No enough legislative ability to establish a set of comprehensive mandatory carbon market
- Study from practice, learning by doing



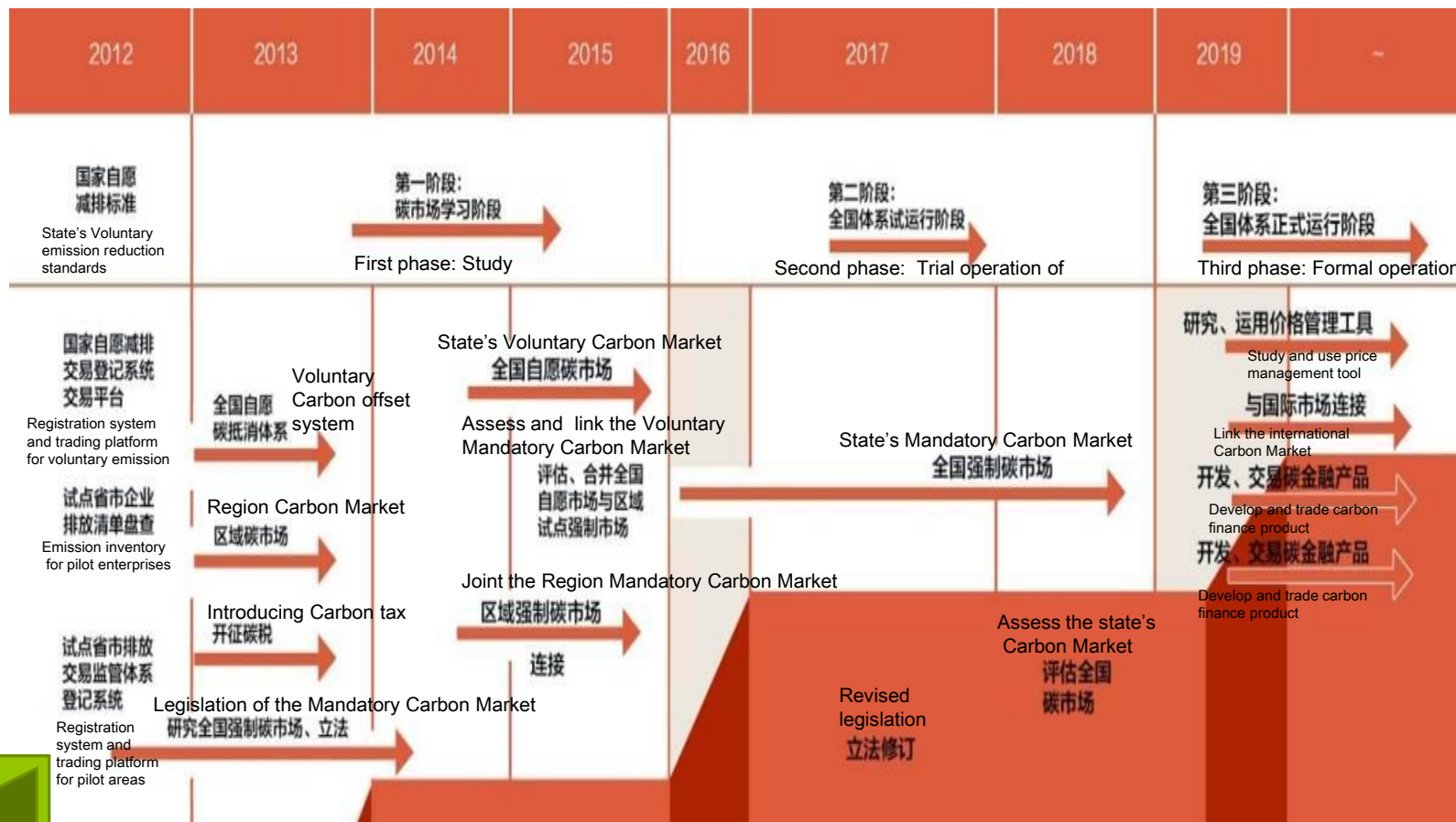
建立碳市场的基本步骤

Establish the Basic Steps of the Carbon Market

- 第一阶段： **2012~2015**
碳市场学习阶段
 - 第二阶段： **2016~2018**
全国体系试运行阶段
 - 第三阶段： **2019~2025**
全国体系正式运行阶段
- First step **2012~2015**:
Study period of carbon market
 - Second step **2016~2018**:
Test run of the national carbon market system
 - Third step **2019~2025**:
Formal operational phase of the national carbon market system

中国碳市场的路线图

The Carbon Market Roadmap



设计碳市场的基本制度

Design Carbon Market System

需要满足的要求

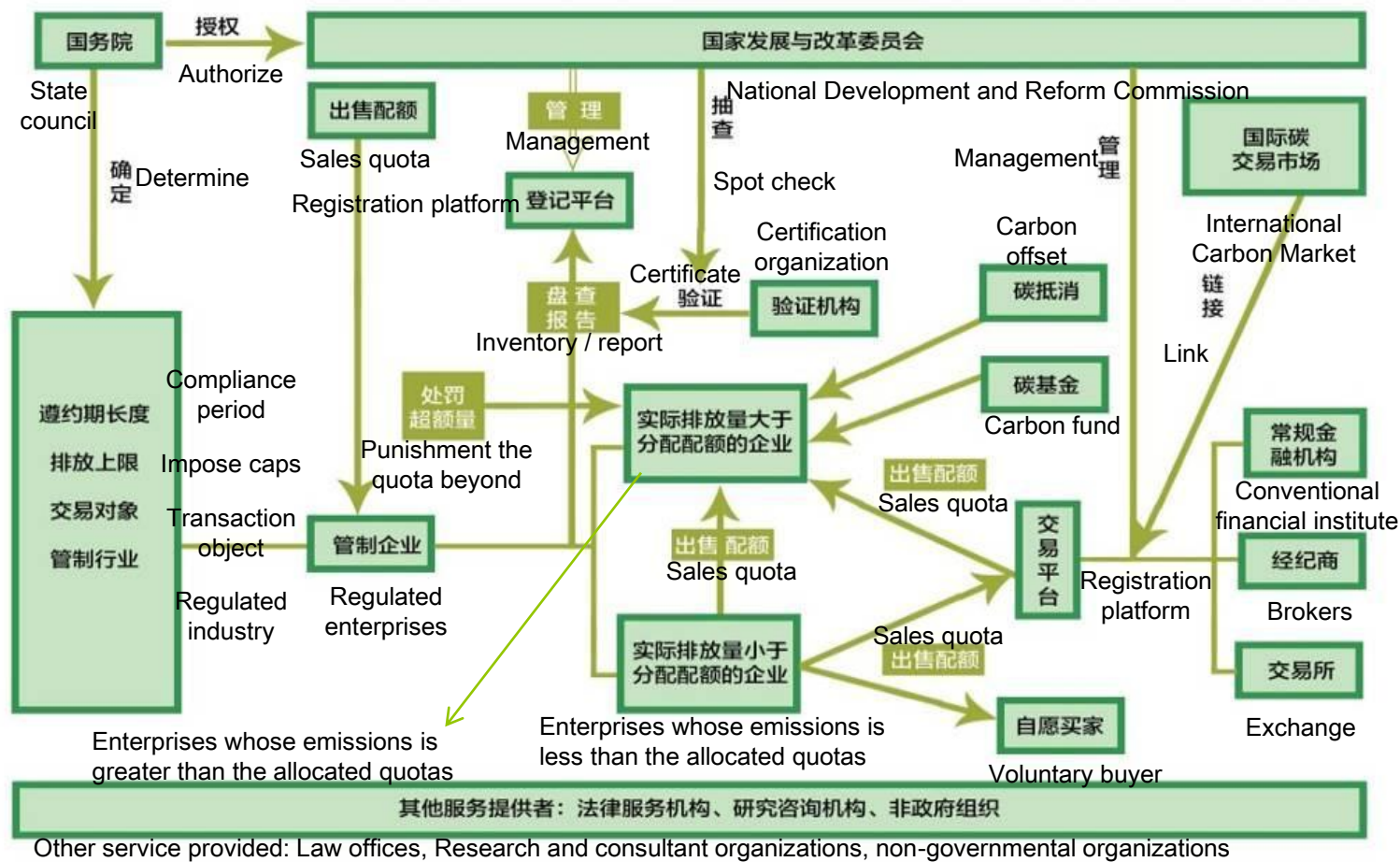
- 环境有效性
- 成本有效性
- 行政可行性
- 公平性
- 产业接受性

Requirements

- Environmental effectiveness
- Cost effectiveness
- Administrative feasibility
- Fairness
- Industry acceptance


中国碳市场基本制度的蓝图

Chinese Carbon Market System Blueprint



中国碳市场发展现状

Chinese Carbon Market Development Status

- 七省市碳交易试点：北京，上海，天津，深圳，重庆，湖北，广东
- 六大行业核算方法：电力、航空、钢铁、化工、建材（水泥、平板玻璃）、有色金属（镁冶炼、铝冶炼）
- 企业碳披露
- 《低碳产品认证管理暂行办法》，低碳产品认证的试点工作已在广东、重庆、湖北三省市全面展开
- 能力建设，培训
- 低碳试点城市 
- Seven pilot cities and provinces: Beijing, Shanghai, Tianjin, Shenzhen, Chongqing, Hubei, Guangdong
- Carbon emission accounting method for six industries: power industry, aviation industry, Iron-steel industry, chemical industry, building materials industry (including cement, plate glass)
- Enterprise carbon disclosure
- *Low-carbon Products Certification and Management Provisional Measures*, the pilot has been carried out in Guangdong, Chongqing and Hubei
- Capacity building, training
- Low carbon pilot cities

低碳试点城市

Low-carbon Pilot Cities

6个省区低碳试点，36个低碳试点城市

- 测算并确定本地区温室气体排放总量控制目标
- 研究制定温室气体排放指标分配方案
- 建立本地区碳排放权交易监管体系和登记注册系统
- 培育和建设碳交易平台
- 碳排放权交易试点支撑体系建设

6 provincial areas, 36 low-carbon pilot cities

- Calculate and determine the region's total greenhouse gas emissions targets
- Study and formulate distribution plan for the greenhouse gas emissions targets
- Establishing regional regulation system and registration system for carbon emissions trading
- Cultivation and building of carbon trading platform
- Build the support system for carbon emissions trading pilot



科威业务 Coway's Business

○ 碳资产管理与咨询

- 国际碳交易市场：CDM, VER, GS项目开发
- 国内碳交易市场：CCER项目开发
- 组织层面的温室气体排放清单核算；碳中和
- 能力建设与培训

○ 清洁、低碳技术转移

- 寻找国外已产业化技术
- 技术评估与市场调研
- 实现国内的产业化

○ Carbon asset management and consulting

- Global: CDM, VER, GS project development
- Domestic: CCER project development
- Greenhouse gas emissions inventory accounting, carbon neutral
- Capacity building, training

○ Clean and low-carbon technology transfer

- Looking for industrialization appropriate technologies in overseas
- Technology assessment and market research
- Implementation of domestic industrialization

谢谢!

Thanks!

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