

Low Carbon Development and EU-China Cooperation

低碳发展与中欧合作

Prof. Liu Xiaoli, Co-Director

中欧清洁能源中心中方主任 刘小丽 研究员

中国能源发展面临的主要挑战

- 高强度能源开发利用造成的严重生态和环境污染；
- 能源供应安全风险不断加剧；
 - 2014年：石油对外依存度59.5%、天然气对外依存度32.2%
- 能源系统综合效率较低；
- 应对全球气候变化形势日趋严峻。

低碳发展是中国可持续发展的客观要求。中国需要在转变经济发展方式、提高能源效率、发展可再生能源、倡导低碳消费方式等多方面开展行动。

The major challenges for energy development in China

- Serious ecological environment pollution caused by high-intensive energy development and utilization
- Rising risk of energy supply security
 - In 2014, dependence on imported petroleum is 59.5%, dependence on imported natural gas is 32.2%
- The integrated efficiency of energy system is lower
- The situation of responding to global climate change is increasingly serious

In China, Low-carbon development is the objective requirement of the sustainable development .

It needs to carry out actions in several aspects, such as: changing the economic development model, increasing energy efficiency, promoting renewable energy, proposing low-carbon consumption, etc..

城镇低碳发展是实现中国低碳发展战略的重要部分

- 中国正处在城镇化快速发展阶段
 - 2000-2013年，每年平均从农村转移到城镇的人口有2090万。2013年，中国常住人口城镇化率由2000年的36.2%增加到53.7%。
- 中国能源消费和CO2排放主要集中在城镇。
 - 中国城市消耗了全国能源的80%，碳排放占全国的90%。
- 中国新型城镇化面临严重资源环境压力。



Urban low carbon development is an important part to implement low-carbon development strategy in China

- China is in the stage of rapid development of urbanization
 - From 2000 to 2013, annual rural-to-urban migration is 20.9 million people. In 2013, the rate of resident urbanization increase to 53.7% from 36.2% in 2000.
- In China, energy consumption and CO2 emission mainly concentrate on cities and towns.
 - In China, cities consume 80% of the national energy, and their carbon emissions account for 90% of the whole nation.
- In China, the new urbanization is under the pressure of resources and environment.

中国低碳城镇发展现状

- 2005年：中国住房和城乡建设部推进低碳城镇的试点示范。
- 2008年：世界自然基金会启动“中国低碳城市发展项目”。
- 2010年：国家发展改革委提出“开展”五省八市’低碳省区和低碳城市试点”。
- 2011年：财政部、住建部确定了第一批示范绿色低碳重点小城镇试点。
- 2013年：中国住房和城乡建设部全国首批绿色生态城区建设示范城区。
- 2014年：国家发展改革委等11个部委要求建立国家新型城镇化综合试点。
- “十二五”规划：国家能源局提出到2015年，建设100座新能源城市，1000座新能源示范园区。

China low carbon cities development status

- In 2005, the Ministry of Housing and Urban-rural Development pushed on low carbon city pilot project.
- In 2008, World Wide Fund for Nature launched "China low carbon city development project".
- In 2010, National Development and Reform Commission (NDRC) proposed "five provinces 8 cities, low carbon province and low carbon city pilot".
- In 2011, Ministry of Finance and Ministry of Housing and Urban-Rural Development confirmed the first green low carbon important small city pilot projects.
- In 2013, Ministry of Housing and Urban-Rural Development confirmed first green ecological city pilot project.
- In 2014, NDRC and other 10 ministries and commissions required to build integrated pilot projects of national new urbanization.
- In the 12th Five-Year Plan, National Energy Administration proposed to build 100 new energy cities, 1000 new energy demonstration zones.

国家新型城镇化规划（2014—2020年）

+60%

城镇化目标：常住人口城镇化率达到60%左右。

+27%

可再生能源比例目标：可再生能源在城镇能源消费结构中的占比由2012年的8.7%提高到至少27%

+60%

空气质量目标：地级以上城镇空气质量达到国家标准的比例由2012年的40.9%提高到60%

中国低碳城镇发展面临的挑战：如何合理地制定城镇规划及进行产业布局、制定指标体系、建立清洁能源系统与有效融资体系和监管体系等问题。

The New National Urbanization Plan (2014-2020)

+60%

Urbanization objective: residents urbanization rate is up to 60%.

+27%

Renewable energy objective: in urban consumption structure, renewable energy is up to 27% at least, compared to 8.7% in 2012.

+60%

Air quality objective: the proportion of urban air quality in prefecture-level city reached to national level will increase to 60%, compared to 40.9% in 2012.

The challenge for low-carbon city development in China: how to reasonably make urban development plan and industrial distribution, formulate index system, build clean energy system, effective financing system and supervision system.

EU-China Cooperation on Clean Energy 中欧清洁能源中心

11st EU-China Summit May 2009
Energy Cooperation Priorities
2009年5月中欧峰会上签署的欧盟
和中国政府间合作项目

Inauguration of EC2
30th April 2010
2010年4月30日中心成立

5 Focus Areas 主要领域



EC2的宗旨 Objectives

**PROMOTE THE INCREASED USE OF CLEAN ENERGY IN CHINA, THUS
CONTRIBUTING TO GLOBAL SUSTAINABLE DEVELOPMENT**
促进新能源在中国的利用, 共同推进全球可持续发展

**Chinese needs for clean
energy technologies
and know-how in
developing Policies
regulatory frameworks
and standards**

**European policies and
technologies for clean
energy as well as the
supply of valuable
experience and
practices**

**Technological
Cooperation**
技术合作

**Policy Advisory
& Capacity Building**
政策咨询和能力建设

**Awareness
Raising**
提高认知

Key Activities and Outcomes on LCMT 在支持低碳城镇示范项目方面开展的主要活动



EU-China Experience Sharing
分享中国 - 欧盟新能源城市经验



1_新能源
城市New
Energy
Cities



2_低碳示
范项目
Low
Carbon
Model
Towns



为更好地推进友好城市项目，使中方城市能加入到“中欧城镇化伙伴关系”中，并建立具有特色的项目合作，促进中国的新型城镇化建设，EC2还将制订2015年友好城市推进计划。

In order to promote Twin Town project, EC2 set up Twin Town promotion project to make Chinese cities involve in "China-EU urbanization partnership", establish featured cooperation projects, and promote new urbanization development in China. EC2 will develop friendly city promotion project in 2015.

Key Activities and Outcomes on LCMT

在支持低碳城镇示范项目方面开展的主要活动

E-learning(March 12 and 27,2015)
远程培训(2015年3月12日—3月27日)



The *Demo Zone Toolkit* aims at providing the public decision makers with a methodology to comply with sustainable urban projects.

示范区工具包为公共决策制定者在发展可持续城镇项目方面提供方法论。

The *Demo Zone Toolkit* incorporates a number of methodologies for the guidance of complex and integrated projects that have been proven to be successful in Europe.

示范区工具包融合了一系列的综合性项目的指导方案，这些方案已在欧洲得到了成功地应用。

欧盟在低碳经济发展和城镇建设方面走在世界前列，具有很多经验和教训值得中国借鉴。希望通过EC2平台，加强中欧合作，共促中欧城镇低碳发展。

In low carbon development and urbanization construction, the European Union take its place in the front ranks of the world, and it has rich experience and lessons which China could use for reference. It hope that, through EC2 platform, strengthen China-EU cooperation and jointly promote China-EU urban low carbon development.