A Study on Beijing Low-Carbon Energy Roadmap

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2012/12/10

1 Background

- The climate change has become one of important factors for sustainable economic and social development in the world.
- Beijing has established her ambitious low-carbon development goal towards a world city.
- To achieve the goal, Beijing needs to develop a green and low-carbon energy system..
- This study focuses on the future energy low-carbon scenarios and a 2030 low-carbon energy roadmap for Beijing.

1 Background

This study provides several results:

- Firstly, to define the total energy control target and emission reduction goals;
- Secondly, it is stressed that energy saving and emission reduction measures will be implemented to retain of growth in total energy consumption;
- Thirdly, Beijing to develop a robust, secure, and diversified energy supply system;
- Fourthly, the low-carbon development strategy should be integrated in the city economy development.

2 Putting forward total energy amount control and carbon emission reduction targets

- Beijing's total energy demand will reach the peak in 2025;
- Beijing the CO_2 emission (not including the import of electricity) will be at the maximum in 2015;
- The carbon emissions will reach the peak in 2025;
- Other pollutants discharges (including PM2.5) will be significantly improved by 2020;
- Beijing's per capita CO_2 emission shall maintain at a level of 8t/per capital in 2030.

2 Putting forward the energy of total amount control and carbon emission reduction targets

- The main strategies to achieve the above energy and environmental targets will include:
- Persistent implementation energy conservation policies in a broader and more intensive scale;
- Low carbon building and transportation system based on the advanced technology ;
- Improve the energy management system;
- Implement strict energy saving standards;
- The Energy efficiency will progress to an international advanced level during 2020-2030.

3 Implementing Energy saving and emission reduction measures to control to energy growth

The scenario analysis results of the study show:

- Beijing has great development potential in the future;
- Annual GDP growth rate will be maintained at about 8.3% in 2012-2020, and at about 6.5% in 2020-2030;
- Beijing will host around 27 million people and 28 million of its resident population.

3 Implementing Energy saving and emission reduction measures to control to energy growth

The measures for control the growth of total energy consumption needs to take strong policy.

- The measures on low carbon transport：Innovative low-carbon transport service system；Easy access to fast and comfortable public transport；Energy efficient vehicles；Higher fuel efficiency standards, etc.
- The measures on low carbon service sector：widely implement projects of central heating and thermoelectric cooling technologies；To promote high standards of energy-efficient buildings (i.e. 75% or higher standard).
- The measures on low carbon resident sector：The central heating and co-generation technology; combined with measures of higher standard energy efficient electric appliances and building integrated energy saving equipment. For rural residents, promoting energy saving houses; the areas for 50% or more energy saving in heating；promoting the use of passive solar house heating and so on.
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4 Developing Robust and Highly Secure Energy Supply System

- Beijing needs a robust and highly secure energy supply system. This should be defined as a locally distributed supply, diversified energy supply, cooperative exploiting energy for import Beijing. The energy resource development strategy aims to clean energy and renewable energy will share large proportion in the required energy import.
- Beijing shall improve its energy reserves, and energy reserve will be meted for use in 3 month by 2020-2025.

5 Integrated Low-Carbon Strategy with Economic Development to Improve Beijing's Competitiveness

To integrate the low carbon energy strategy and economic development, Beijing needs to:

- Developing its high-end manufacturing: develop high-tech industries, low carbon service industries, and low carbon energy industries.
- Building integrated solar energy applications, smart grid, electric vehicles, intelligent information technologies ;
- Promoting NGCC and CCS; develop the limited local wind resource potential and develop wind power;
- After 10-20 years of efforts, Beijing will develop its competitive of low carbon economy with world city characteristics.

Thanks!

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