

The Situation and Trend of Energy-Saving and Emission Reduction in Some of China's Inland Provinces

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Background

- The State Council has issued the decision to strengthen energy saving and has formulated a series of policies to promote energy saving and emission reduction.
- The local governments also have made such arrangements one after another. But energy saving and emission reduction is still facing a grim situation.
- According to the survey in Heilongjiang, Jilin, Inner Mongolia, Ningxia, Gansu, Xinjiang and Yunnan province from the end of June to early July in 2007.

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The situations of energy saving and emission reduction in the surveyed provinces

■ Table 1 The situation of energy saving and emission reduction of each surveyed provinces in 2006

Provinces	The growth rate of GDP in 2006	energy consumption per unit of GDP in 2006		COD Emission in 2006		Sulfur dioxide emission in 2006	
		Index (ton of standard coal/ten thousand RMB)	Rise or Fall(± %)	Index (ten thousand tons)	Rise or Fall (± %)	Index (ten thousand tons)	Rise or Fall (± %)
National Level	11.1%	1.206	- 1.33	1431	+1.20	2595	+1.80
Heilongjiang	12%	1.412	- 3.04	49.75	- 1.28	51.8	+1.98
Jilin	15%	1.591	- 3.32	41.68	+ 2.46	40.9	+7.10
Inner Mongolia	18%	2.413	- 2.50	29.31	- 1.32	144.6	- 0.69
Ningxia	12.5%	4.099	- 1.01	13.9	- 2.80	38.07	+11
Gansu	11.4%	2.199	- 2.61	17.8	- 2.20	54.6	- 3.02
Xinjiang	11%	2.092	- 1.06	27.27 (Without Corps)	+6.23	53.24 (Without Corps)	+5.97
Yunnan	11.9%	1.708	- 1.52	29.5	+3.50	55.1	+5.5

Source: The National Bureau of Statistics website and the materials supplied by each provinces and autonomous regions.

■ Table 2 The goals of energy saving and emission reduction in each surveyed provinces' eleventh five-year plan

Provinces	The target of energy consumption per unit of GDP in 2010		The target of COD Emission in 2010		The target of Sulfur dioxide emission in 2010	
	Index (ton of standard coal/ten thousand RMB)	Rise or Fall(± %)	Index (ten thousand tons)	Rise or Fall (± %)	Index (ten thousand tons)	Rise or Fall (± %)
National Level	0.98	- 20	1263.9	- 10.6	2246.7	- 11.9
Heilongjiang	1.17	- 20	45.2	- 10.3	49.8	- 2
Jilin	1.16	- 30	36.5	- 10.3	36.4	- 4.7
Inner Mongolia	1.86	- 25	27.7	- 6.7	140	- 3.8
Ningxia	3.31	- 20	12.2	- 14.7	31.1	- 9.3
Gansu	1.8	- 20	16.8	- 7.7	56.3	0
Xinjiang	1.69	- 20	25.67*	0	50.24*	0
Yunnan	1.44	- 17	27.1	- 4.9	50.1	- 4

Source: The National Bureau of Statistics website and the materials supplied by each provinces and autonomous regions.
Note: excluded Xinjiang Corps.

- The goals of energy saving and emission reduction (4%) set at the beginning of 2006 was not realized in that year, which made the execution of energy-saving and emission reduction target much harder in the following four years in the eleventh five-year plan.
- The level of economic development and the economic structure are different in each surveyed provinces so that the effect of energy saving is various.
- Each surveyed province sets definitely different goal of emission reduction in their eleventh five-year plan. It is relatively easier for some provinces to carry out their plans but for some provinces that heavily depend on resources industry and heavy chemical industry, such as Gansu and Ningxia, it is much harder.

The main experiences and good practices of energy saving and emission reduction of each surveyed provinces

-) Governmental leadership and management have been strengthened and systematic and institutional constructions have been improved further.
 - Established relevant organizations
 - Enacted and improved the relevant policies and regulations
 - Establishment of GDP energy consumption index bulletin system
 - Conducted pilot audit on energy consumption



The first blast for energy saving in Gansu Province. No.1-No.3 cooling towers of Yongchang fire power station were exploded after operated 40 years.

-) Adopted several other measures and aggressively promoted energy saving and emission reduction

- Enhanced the responsibility system and decompounded the main missions
- Accelerated the development of circular economy
- Increasingly eliminated the laggard productivity
- Implemented the priority energy-saving projects, comprehensive utilization of resources and pollution control projects
- Increasing the input of energy saving and emission reduction
- Strengthened the management of the sources of project approval

The problems and difficulties of energy saving and emission reduction in the surveyed provinces

-) Most of surveyed provinces reported that the energy-saving goals are a little bit difficult to accomplish
- During the survey, most surveyed provinces reported that the energy-saving goals are a bit difficult to accomplish.
- Take the Jinlin Province for example (using its own eleventh five-year plan).

Table 3 Reduction of the energy consumption plans

Reduction of the energy consumption per unit of GDP (%)		Reduction of the energy consumption per 10,000 yuan of agricultural added value (%)		Reduction of the energy consumption per 10,000 yuan of industrial added value (%)		Reduction of the energy consumption per 10,000 yuan of tertiary industrial added value (%)	
total	average	total	average	total	average	total	average
30	6.9	18	3.9	35	8.3	15.5	3.3

-) It is difficult to adjust the industrial structure, which fundamentally restrict the accomplishment of the task of energy saving and emission reduction
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- The industrial structure adjustment is the essential factor of the task of energy saving and emission reduction.
 - Each surveyed province commonly report that it is very difficult to adjust the industrial structure and the adjustment can not be achieved in the short term.
 - Xinjiang, Gansu, Inner Mongolia have a resource dependent industrial structure, the major proportions of which are basic raw materials and heavy industry.
 - Difficult for them to develop the industries with advanced technology and lower energy consumption.

-) The prices of energy are a bit lower, which make energy saving and emission reduction much more difficult
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- The surveyed provinces generally report that the current lower energy prices can not reflect the situation of resource scarcity, market demand and supply and the cost of ecological damage and pollution control.
 - The energy consumption entities lack the full enthusiasm and driven forces of saving energy and comprehensively utilizing the resources and usually pursue the economic benefit only by resources and energy consumption.

-) Inadequate economic policies and financial support negatively effect on energy saving and emission reduction
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- The surveyed provinces reports that to carry out energy saving and emission reduction needs stronger policies and financial support from the government.
- But currently the relevant supporting policies are not stronger and carried out effectively.
- The policies to encourage comprehensive utilization of resources, cleaner production, to compensate the loss for elimination of backward productivity.
- To make it worse, the financial support of government is not adequate, neither.

-) The weakness of the relevant supportive conditions, such as energy statistic, has a negative effect on the completion and the authenticity of the work of energy saving and emission reduction
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- Energy statistic is the basis of implementation of energy saving and emission reduction and the condition to carry out the system of energy consumption index bulletin.
- The survey shows that the energy statistics in most of surveyed provinces is very weak and lacks of human resources, material resources and financial power to carry out.

The policy suggestions promoting energy saving and emission reduction

-) Accelerate the system construction to promote energy saving and emission reduction
 - Energy saving and emission reduction is not just a technical problem but also a system construction problem.
 - From now on the work of energy saving and emission reduction should be consistent and depend on the system guarantee rather than be promoted by administrative power.
 - The policies and regulations of environment and resources should be kept perfecting and make sure be carried out effectively.

-) Accelerate the industrial structure adjustment and industrial technology replacement
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- The fundamental way of successful energy saving and emission reduction implementation.
- Each region in its own industrialized process should focus not only on the development of energy, raw materials and other heavy chemical industries but also on the long-term development, for example, accelerating the development the light industry, processing manufacture industry, high-tech industry and service industry.
- Stricter industrial access standards should be drew up in the fields of energy consumption, resource utilization and environmental protection. Compulsorily eliminate the heavy energy consuming backward technology, techniques and equipment of specific industries.

-) More emphasis on taking economic measures to meet the goal of energy saving and emission reduction

- Economic policies and measures are the most direct and efficient means to encourage enterprises and individuals to save energy and reduce emission.
- For correcting the tendency to abuse resources and destroy environment, taking the cost of exploiting resources and the benefit of protecting environment into account, a series of fiscal and tax policies helpful to saving resources and protecting environment must be made to direct energy saving and emission reduction by the implicit hand of market.

-) Strengthen the efforts on energy saving and emission reduction in important industries with a stricter control on the sources of pollution

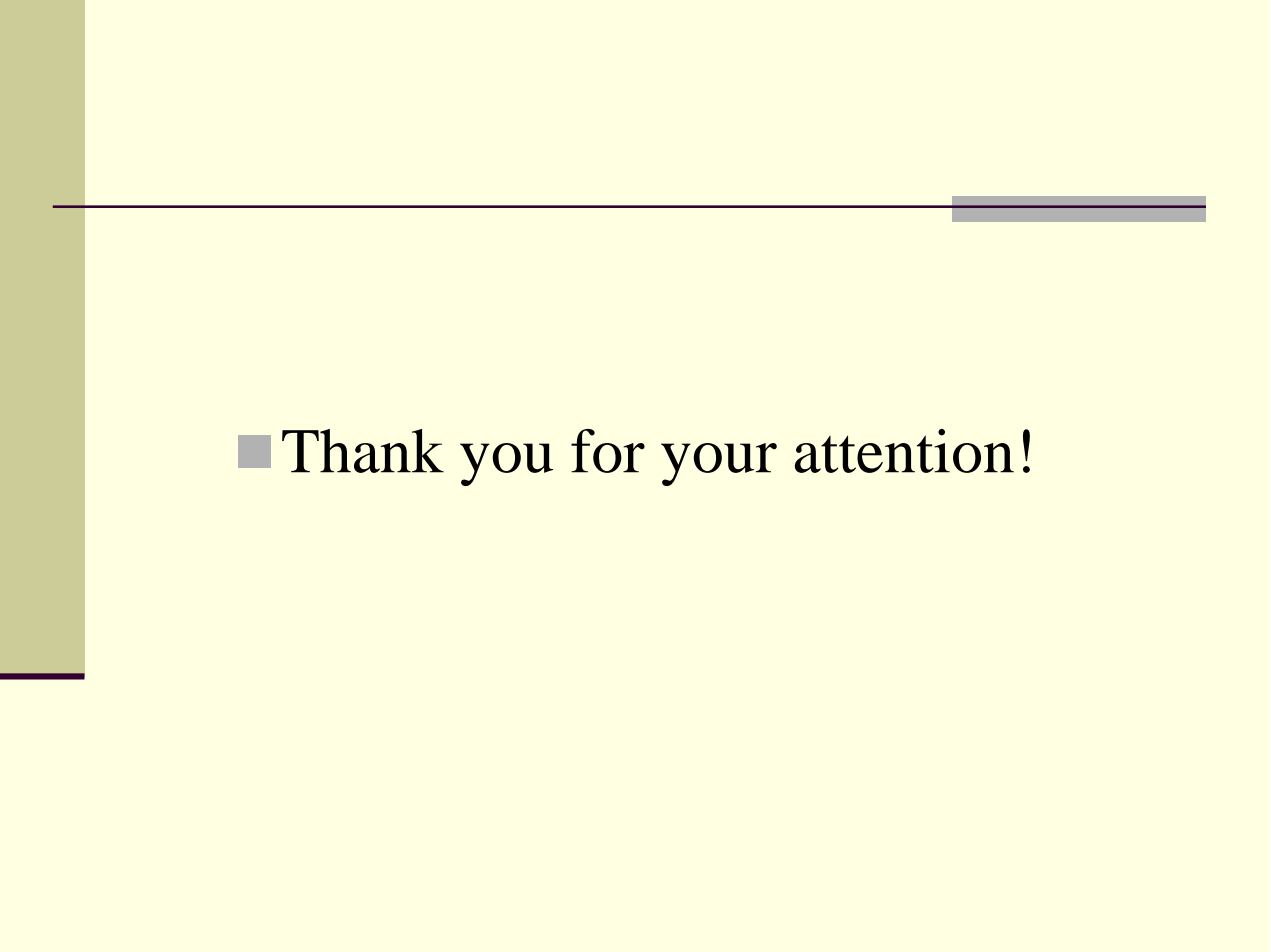
- Control on the pollution sources is the key part of energy saving and emission reduction.
- Make sure that the new established projects and technical replacement projects on old enterprises meet with the standards of energy saving and environment protection.
- Measures taken includes the strict implementation of evaluation system of environment influence, aggregate control system of pollution emission based on environment capacity and environment access system, aiming to filter out the high energy-consumed and pollution-emitted projects.

-) Developing circular economy and forming a joint force in energy saving and emission reduction

- Developing circular economy is an important way to reach the target of energy saving and emission reduction, which is defined as exploring new ways of using resources comprehensively and cyclically and connecting economic development with resource saving and environment protecting.
- The target of circular economic development must be included in domestic economic and social development planning, regional development planning and various planning in the specific fields.

-) Adjust measures according to local conditions to complete the mission of energy saving and emission reduction

- Considering the large difference in the development between areas across the country, the specific situation of local provinces or cities, counties must be taken into consideration in setting the targets of energy saving and emission reduction, by estimating the demand and potential space for energy saving and emission reduction precisely.
- Potential large discrepancy between set goal and realized level must be avoided.
- Meanwhile, a single pervasive standard is also unscientific because of the diversity of the technological levels and development stages in various firms in various industries.



■ Thank you for your attention!