# Efforts in Moving Towards a Low Carbon Future: China's Energy Conservation and Renewable Energy Laws

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# Contents

- Background
- Energy Conservation Law
- Renewable Energy Law
- Conclusions

# Background

- The second largest emitter of greenhouse gases, next to the US
- The acceleration of urbanization, industrialization, and the increase of residential energy consumption
- The challenges of the adverse affects of the low energy efficiency and the coal-dominated energy mix
  - energy efficiency is far lower than in the world's most advanced systems;
  - coal accounts for 69 per cent of energy consumption
  - energy mix dominated by coal, and the extensive economic growth have resulted in many environmental and social issues, including a substantial increase in emissions of SO<sub>2</sub> and CO<sub>2</sub>.

#### **Energy Conservation Law (ECL)-Introduction**

- In the 1980s, the principle of "equal treatment to energy development and energy conservation with immediate emphasis on the latter" adopted
- In 2006, the 11th Five-Year Plan Guidelines on National Economic and Social Development of the PRC fixed as binding targets that in the period of the 11th Five-Year Plan, the energy consumption per GDP must decline by 20 percent and the main pollutants discharged be reduced by 10 percent

#### **Energy Conservation Law (ECL)-Introduction**

- Due to the influence of the planned economy model, China mostly relied on policies to regulate energy affairs
- With the development of market-oriented reform and the constitutionalization of the basic strategy of "managing state affairs according to law", laws are playing an increasingly important role
- ECL was adopted on Nov.1, 1997 and came into effect on Jan. 1, 1998; it was amended on Oct. 28, 2007 and the amended ECL will come into effect on April 1, 2008

# Energy Conservation Law (ECL) Basic Contents and Performance Evaluation

- Stresses that energy conservation is a long-term strategy and guideline for national economic development
- Requires the State Council and the people's governments of provinces, autonomous regions, and municipalities directly under the central government to strengthen their efforts in energy conservation

#### Energy Conservation Law (ECL) Basic Contents and Performance Evaluation

- Establishes the following key policy directives and tools:
  - energy conservation planning system;
  - energy investment planning system;
  - evaluation system for rational utilization of energy;
  - system prohibiting new construction of industry projects with high consumption of energy;
  - energy conservation standard system;
  - energy consumption quota system;
  - elimination system for outdated and highly energyconsuming products and equipment;

#### Energy Conservation Law (ECL) Basic Contents and Performance Evaluation

(key policy directives and tools continued)

- certification and labeling system of energy conservation products;
- strict administration system of energy conservation for key energy users;
- research and development (R & D) funding system for energy conservation technology;
- The strategy of energy conservation as priority and the mandates of the ECL are not being accomplished in their entirety.

### Energy Conservation Law (ECL) Main Defects of the Legislation

- ECL is heavily influenced by the planned economy model and fails to deal with the relationship between the market mechanism and governmental intervention regarding energy conservation, it presents the following issues:
  - excessively narrow scope: the provisions were designed mainly for manufacturing industries, there are few or no provisions concerning construction, transportation, commerce, residential use, government institutions, or public service units;
  - excessively principle-oriented provisions, lacking in certainty and adequacy, and weak in enforcement and punitive measures towards violators: 6 chapters and 50 articles, mostly a policy declaration and policy framework with weak operative nature;

### Energy Conservation Law (ECL) Main Defects of the Legislation

- the designs of the legal and of the policy systems are poorly correlated and coordinated, having imperfect complementary measures, regulations, and standards
- the targets of energy conservation are not sufficiently clear
- the corresponding necessary supporting measures such as institutional framework, guaranteed funding, enforceable measures, fiscal and tax incentives, technology, and intermediary services, are weak and even absent
- a new energy conservation mechanism that combines market regulation, government supervision, and community participation has yet to be set up.

- Defects in the supervision and administration system and inadequacy in enforcement capabilities:
- no clear designation of a specific enforcement body- the planning branch or the economic branch of the administration, no clear respective scope of duty of the other relevant branches;
- with the development of a market economy and governmental restructuring, the industrial development authorities have been dissolved or consolidated, the energy conservation departments have been downsized, weakened, or dismantled, leading to a severe insufficiency in the government's supervisory force;

- Weak awareness and poor investment:
  - society attaches great importance to the supply and exploitation of energy, while disregarding energy conservation and energy efficiency;
  - many governmental organs are unaware of the significance of energy conservation, and lack a sense of urgency, let alone the inclination to act;
  - government funding for energy conservation is not only scarce, unstable, but also scattered among various departments;

- Offsetting effect of related policies
- the pattern of 'high-priced product, low-priced resources, no-priced environment' created under the planned economy has never been fundamentally changed;
- low energy prices fail to reflect the scarcity of resources, the environmental costs, and costs related to safety, health;

- Weak technological support:
  - the current energy technology level is low;
  - research and development institutions and intermediary agencies are few, indigenous innovation capacity is scarce;
  - energy conservation standards are unable to stimulate technological innovation and development because they are excessively tied to the current technological level;

- 7 chapters and 87 articles, Chapter V, "Incentive Measures", was included
- Chapter I General Provisions:
- declares that "Energy conservation is a basic national policy of China. The State implements an energy development strategy of giving consideration to conservation and development simultaneously, and placing top priority on conservation" (Art. 4);

- requires that "The State Council and the people's governments at and above the county level shall report energy conservation work to the people's congress or the standing committee thereof at the corresponding levels every year" (Art. 5);
- requires that the State implements the energy conservation target responsibility system and the energy conservation examination system, that the people's government of each province, autonomous region or municipality directly under the Central Government shall report its fulfillment of energy conservation target responsibility to the State Council every year (Art. 6);

 Clarify that "The energy conservation administrative department" under the State Council shall take charge of energy conservation supervision and administration nationwide. The departments concerned under the State Council shall be responsible for energy conservation supervision and administration within the scope of their respective functions, and accept the guidance of the energy conservation administrative department under the State Council. The energy conservation administrative department under the local people's government at or above the county level shall take charge of energy conservation supervision and administration within its own administrative area. The departments concerned under the local people's government at or above the county level shall be responsible for energy conservation supervision and administration within the scope of their respective functions, and accept the guidance of the energy conservation administrative department at the same level" (Art. 10).

- Chapter III "Rational Use of Energy and Energy Conservation", expands the coverage to include not only industrial energy conservation, construction energy conservation, transportation energy conservation, but also energy conservation by Public Institutions;
- Chapter V "Incentive Measures",:
- special energy conservation funds established by the central and the provincial level government (Art. 60);
- tax and financial subsidy policies for energy conservation technologies and products, energy resources (Articles 61-63);

- government procurement (Art. 64);
- preferential loans to qualified projects for energy conservation technologies and products (Art. 65);
- price policy for energy conservation (Art. 66).

### Renewable Energy Law (REL) Introduction

- Adopted on Feb. 28, 2005, came into effect on Jan. 1, 2006;
- 8 chapters, 33 articles;

#### Renewable Energy Law (REL) Main Contents

- Renewable energy target policy:
  - the competent department of the State Council shall set national medium- and long-term total targets for the exploitation and utilization of renewable energy resources, and submit them to the State Council for approval
  - It shall also in conjunction with the people's government of each province, autonomous region, and municipality, fix and publicize a long- and medium-term target for the exploitation and utilization of renewable energy for each province, autonomous region, and municipality (Article 7)

## Renewable Energy Law (REL) Main Contents

#### • Feed-in system:

- electricity grid enterprises shall, at the prices determined by the price administration department of the State Council, purchase the full amount of the electricity generated by the renewable energy projects covered by their grid (Articles 14 and 19);
- enterprises operating a gas or heat pipe network shall, at prices fixed by the competent authorities, accept into their networks the gas or heat produced by using biomass resources (Art. 16);
- petroleum-selling enterprises shall incorporate biofuels that meet the national standards into their fuel selling system (Art. 23).

## Renewable Energy Law (REL) Main Contents

 Public bidding system: Anyone who wishes to set up an electricity production project using renewable energy shall obtain an administrative license or report the project for filing purposes. Where two or more persons apply for an identical project which is subject to administrative licensing, the licensee shall be determined through public bidding (Art. 13).

#### • Economic incentive system:

- special fund;
- subsidized loans;
- favorable tax policies;

#### Renewable Energy Law (REL) Main Problems in the Enforcement

#### Governmental awareness:

- some local governments are keen to launch thermal power plants while dragging their feet on renewable energy power projects, because the predominance of GDP as a supreme indicator for political merit has induced local governments to blindly pursue local GDP growth, without showing concern for the social and environmental costs;
- some local governments act as 'quasi-enterprises' which brings conflicts with the central government's economic policies including renewable energy policies.

### Renewable Energy Law (REL) Main Problems in the Enforcement

- Establishment of complementary measures and rules:
  - REL is only a framework law and the competent departments of the State Council or the provincial people's governments need to develop complementary measures and rules;
  - quite a few important ones, such as preferential tax provisions for the use of renewable energy in industrial development projects, have not yet been issued;

#### Renewable Energy Law (REL) Main Problems in the Enforcement

- The implementation and enforcement system:
- REL doesn't grant the public rights of information and participation in the renewable energy development;
- REL has not set up an implementation and enforcement system that combines government administration with general public involvement and social checks and balances, and simply relies on the government;

### Renewable Energy Law (REL) Future Development

- To strengthen market mechanisms and the role of the civil society, so that the government, the market, and civil society, cooperate and function jointly;
- When the development of renewable energy reaches a stage where it can be based on market mechanisms, the current feed-in system should be replaced by renewable portfolio standards;

# Conclusion

- China is devoting itself to boosting energy efficiency and energy conservation, to developing renewable energy, and to improving its energy mix. These efforts contribute to propel its economy towards a 'comparatively low-carbon' stage;
- Chinese energy conservation and renewable energy laws have progressed substantially;
- The legal and institutional frameworks have some defects and deficiencies that pose barriers to enforcement, with the consequent difficulties in achieving policy and legal objectives and targets;
- A 'low-carbon future' for China and the world would greatly benefit from further strengthening and improvements in the energy conservation and renewable energy laws.

# Thanks for your attention!

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