'Coal Withdrawal' strategy Implementation in Hebei and Plans and Measures on Energy Usage Structure Upgrade

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 Recently, Hebei has been actively promoting reforms in the supply structure of the coal industry in the face of the assignments such as the economic downturn pressure, energy production suspension, pollution control, and restructuring. Within the structure where the business plays the main agent role, the market leads, and the government supports, Hebei also has been implementing 'coal withdrawal' strategy by restricting excessive production in the coal industry. In addition, Hebei is actively promoting the reduction in coal production and development of eco-friendly clean energy for 'coal substitution by gas and electricity'. Furthermore, Hebei is adjusting and upgrading the industrial structure and developing the strategic new business and contemporary service businesses. By doing that, Hebei is looking for measures to withdraw the coal and accomplish industrial adjustment.

### 1. Coal Usage in Hebei

- (1) Coal consumption accounts for a large portion of one-time energy consumption
- First, coal consumption in industrial production is 'unequaled'
- For example, in 2014, the share of total coal consumption was 88.46%, which far exceeded the national average of 65.3%. The total consumption of coal in Hebei is 316 million tons, the fourth in the nation.

- Secondly, coal consumption in heating the houses also accounts for a large proportion.
- In 2015, the total heating area of the constructions in Hebei were 1.9 billion square meters. Due to resource condition, income level, and life style, whole constructions in Hebei usually uses coal heating. In 2015, Hebei used 51 million tones of coal for heating and it accounted for 89% of the total energy for heating. The coal heating area is 1.73 billion m<sup>2</sup> and accounts for 87% of the total energy usage area. The coal used for heating is accelerating the air pollution

#### (2) Due to the industrial structure concentration, energy consumption is continuously increasing

• The proportion of the tertiary industry in Hebei in 2015 was 11.5:48.3:40.2, and the proportion of the tertiary industry in whole nation in 2015 was 9.0:40.5:50.5. The traditional industries in Hebei such as steel, equipment manufacturing, petrochemical industry, textile, medicine are consuming large amount of energy. On the other hand, the proportions of the strategic new industries such as IT, biomedicine, and new energy and contemporary service industries such as finance and tourism are low. Those factors make energy consumption in Hebei to increase continuously.

(3) Hebei has low renewable energy usage.

- At the end of 2015, total renewable energy consumption in Hebei increased from 4 million ton of standard coal energy in 2010 to 10 million ton.
- However, total renewable energy consumption accounts for only 5% of the primary energy consumption, which is very low.

## 2. Main coal production restriction measures in Hebei

- (1) Full implementation of 'Coal Withdrawal' strategy
- In 2016, Hebei government issued <Implementation strategy for restricting excessive coal production in coal industry in Hebei> and announced that the government will shut down 123 mines in the Hebei within 3~5 years, and will reduce the amount of energy production by 5,130,000 tons.

 (2) Promotion focused on'Coal replaced by gas', 'Coal replaced by electricity' process.

 In 2017, Hebei government announced <Guidance opinion on Baoding-Lanpang coal restriction area and replacement of coal by electricity and gas implementation>

- (3) Promotion on industrial restructure and upgrade
- Fostering new strategic industry
- Development of new industry such as advanced equipment manufacturing, electronic data based on big data, bio medicine, new energy, new material, energy saving, and new energy car and also acceleration of formation of leading industry.

#### Acceleration of development in contemporary service industry

 Development of productivity services such as contemporary trade logistics, financial services, information services, science technology service, and business service will be implemented first. Then lifestyle service industries such as culture, tourism, and health care will be developed while also developing high-tech service industry.

- (4) Extensive development of clean green energy
- The prevalence and distribution of the natural gas, solar energy, and geothermal energy to reduce coal consumption. Also, main point of the development plan is the strategic transition of energy structure.

# 3.Policy for 'Coal Withdrawal' strategy in Hebei

- (1) Investment and financial innovation
- In clean energy heating field, the state-owned assets play leading. It constructs finance and loan platform and attracts various capital which results in the participation in heating project construction. It also expands PPP model and make the private capital to actively participate in the development of the central heating system, transition from coal to gas and electricity, and clean energy such as bio energy.

- (2) Financial support capacity expansion
- The policy secures the national special financial subsidies and expands investment on heating with clean energy. It also provides special financial subsidies to supports clean energy heating project construction business in terms of clean energy, energy reduction, and polluting substance reduction. In addition, clean energy heating is supported by including it to the total strategic new industry in Hebei. Through 3 years of the governmental subsidies, the energy utilizing the clean development will be used in the market.

### • (3) Reinforcement of research on clean energy heating technology

• The policy will reinforce research on clean energy heating technology and also supports industry-academia-Institute collaboration between the institutes, scientific research center, university and large corporations. This will accelerate the research and development and result conversion of the technologies and equipments such as the high efficient clean combustion lamps, crop stem energy, and other clean energy alternatives. Those lead to enhancement in the clean energy heating technology.

#### • Thank You

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