



**国家能源局**

National Energy Administration

# China's Natural Gas Industrial Policy and Reform

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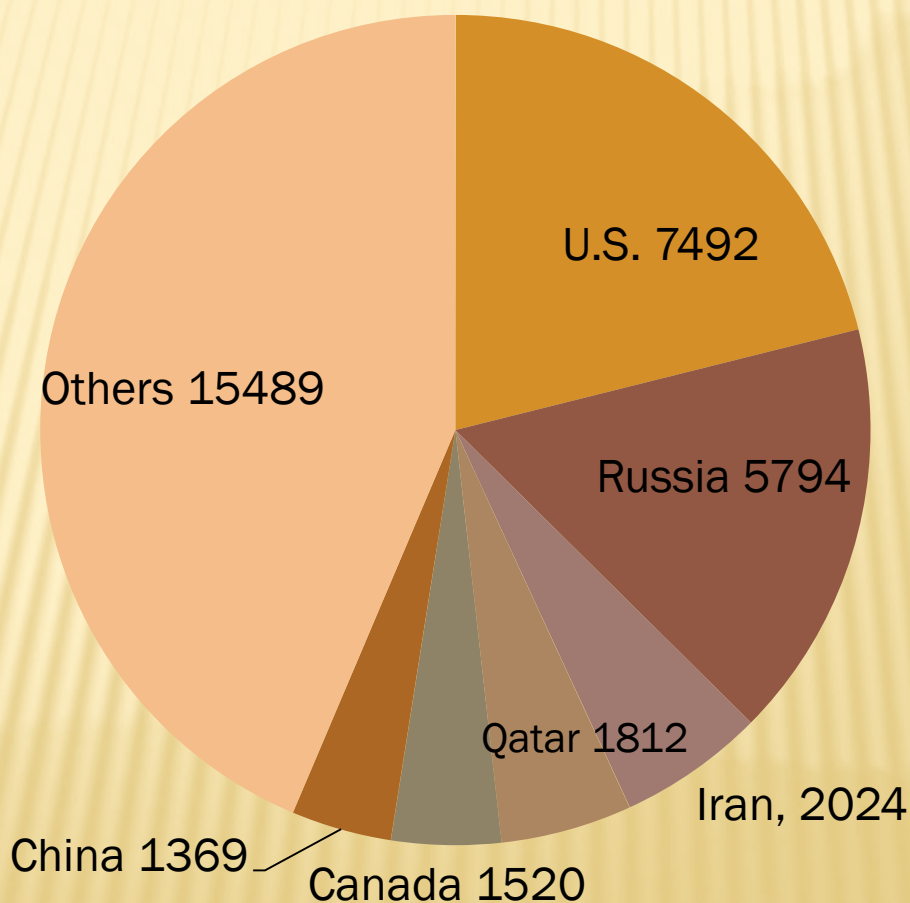
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- I. The Status Quo of Natural Gas Industry in China**
- II. The Prospects of natural gas industry development in China**
- III. Issues and suggestions**

# I. The Status Quo of Natural Gas Industry in China

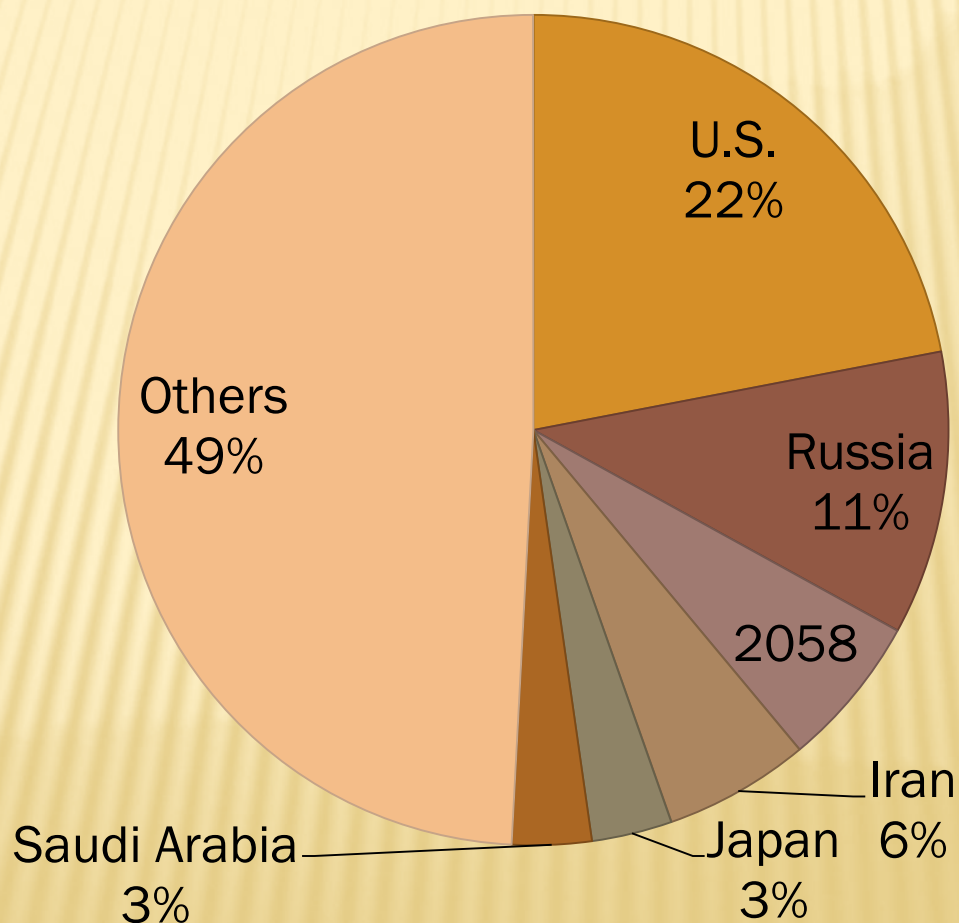
## Natural Gas Production in 2016





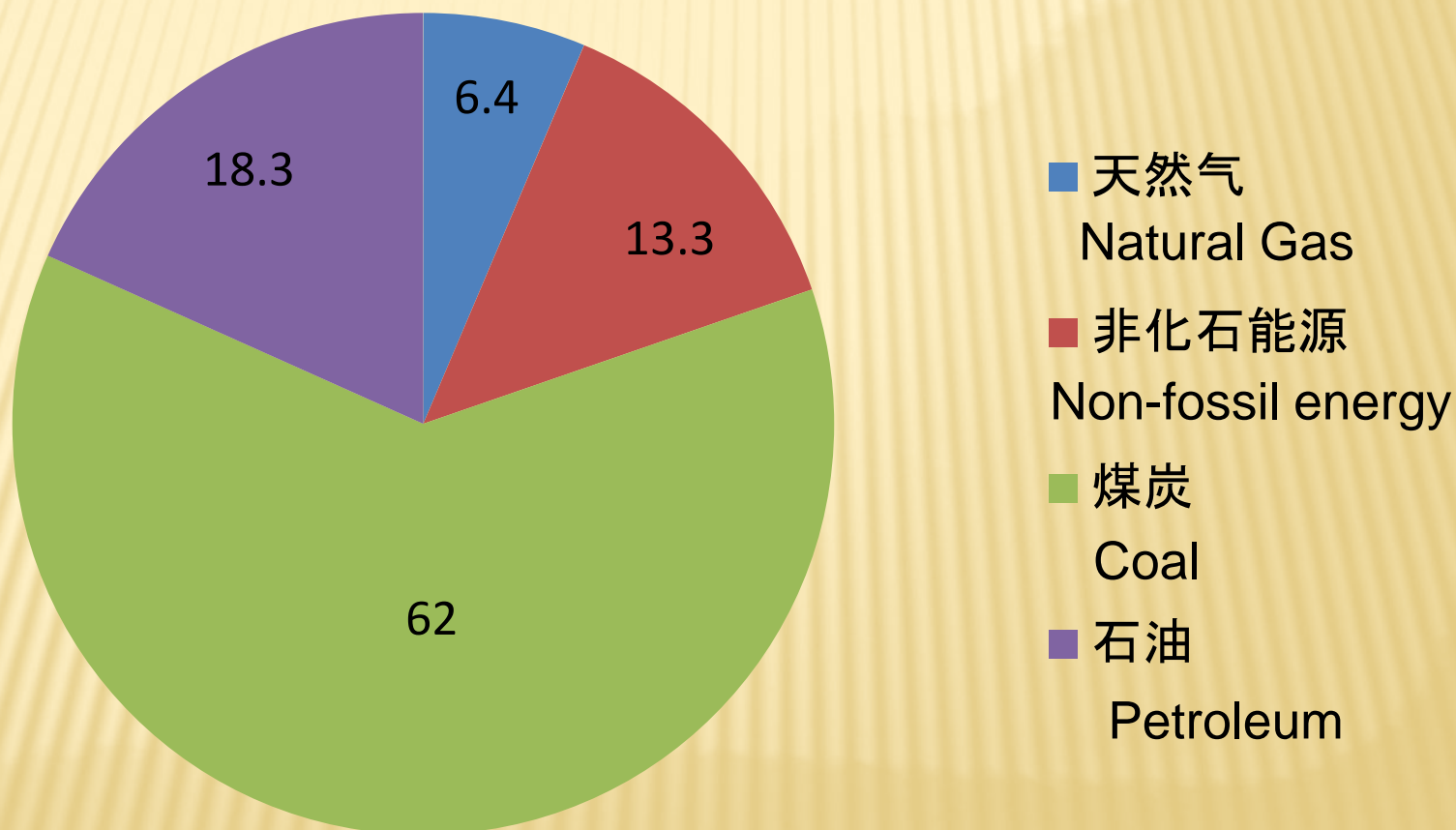
# I. The Status Quo of Natural Gas Industry in China

## Natural Gas consumption in 2016



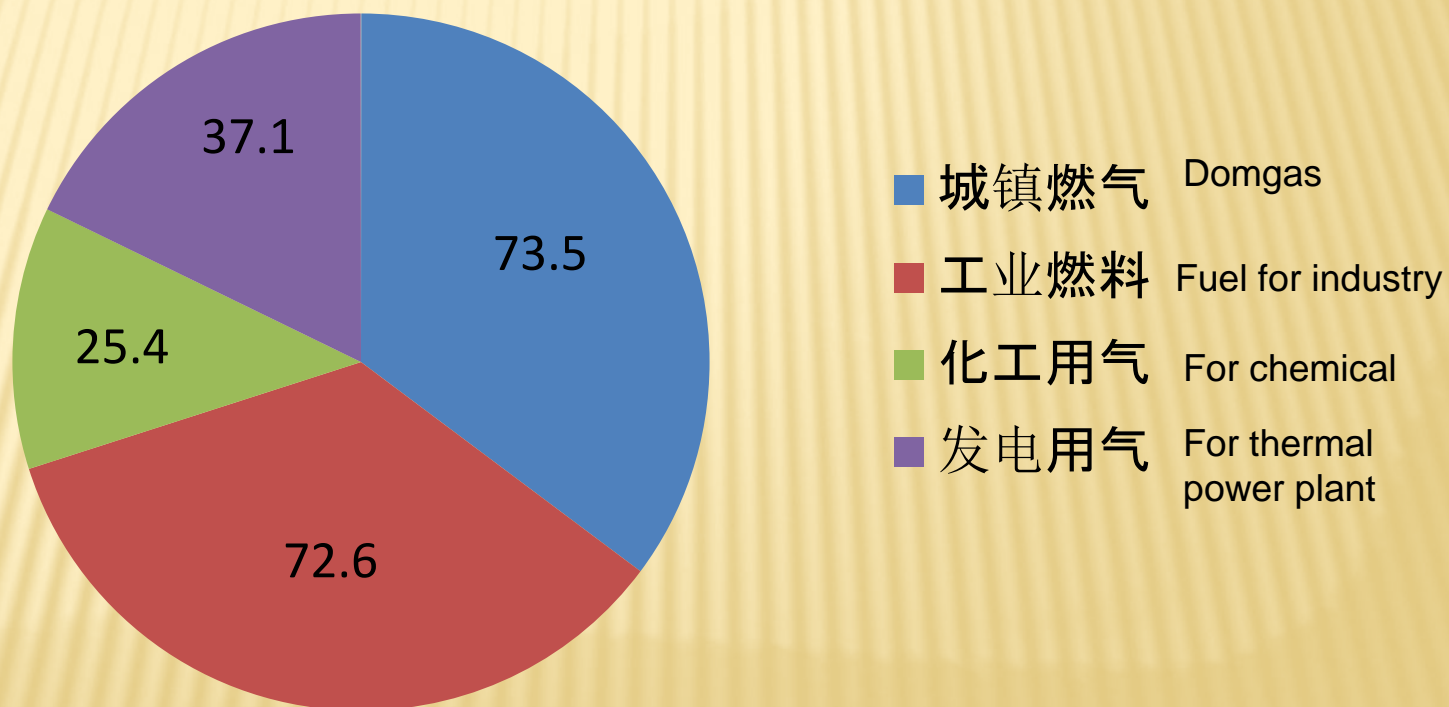
# I. The Status Quo of Natural Gas Industry in China

## Proportions of primary energy consumption in 2016



# I. The Status Quo of Natural Gas Industry in China

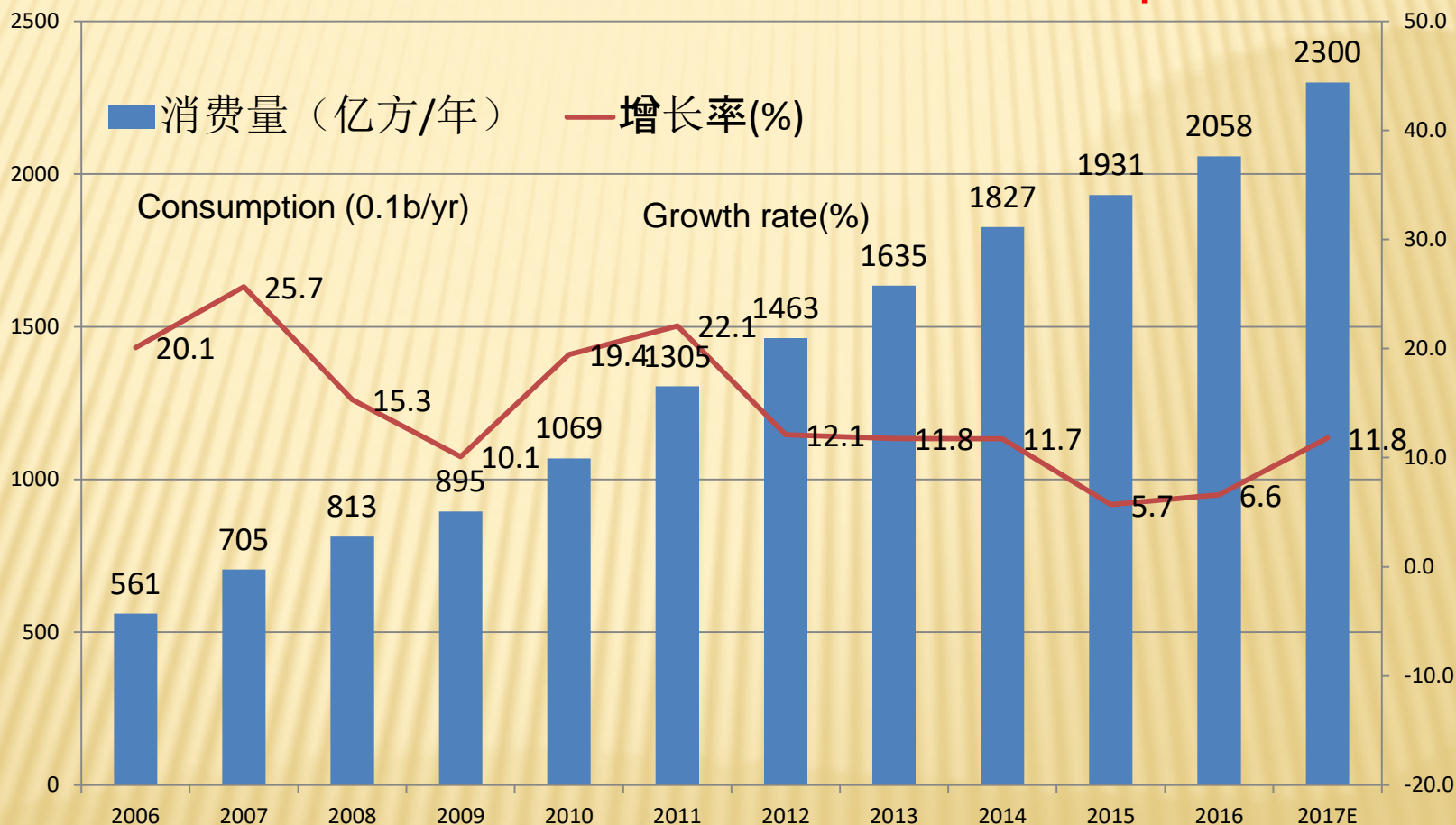
**Proportions of Natural Gas Consumption in 2016**  
(in billion Cubic meter)





# I. The Status Quo of Natural Gas Industry in China

## Growth of Natural Gas Consumption



# I. The Status Quo of Natural Gas Industry in China

## Development of Natural Gas infrastructure







# Summary

- 1. China is the sixth largest producer of natural gas and the third largest consumer in the world.**
- 2. China's natural gas consumption accounts for a low proportion of primary energy.**
- 3. China has built a more complete system of natural gas industry.**
- 4. China's natural gas consumption will continue to grow rapidly.**

## II. The Prospects of natural gas industry development in China

### Natural gas plan in *13th Five-Year development goals*

Index	2015	2020	Average annual growth rate
Total proved reserves (Tcm)	13.0	16	4.3%
Production (bcm/yr)	135	207	8.9%
Natural gas accounts for the proportion of primary energy consumption (%)	5.9	8.3~10	-
Usage percentage of natural gas in urban population (%)	42.8	57	-
Pipeline mileage (ten thousand km)	6.4	10.4	10.2%
Primary capacity of pipeline transmission (bcm)	280	400	7.4%
Working capacity of underground gas storage (bcm)	5.5	14.8	21.9%



## II. The Prospects of natural gas industry development in China

### Implement the utilization of natural gas

13 ministries issued *Opinions about accelerating the implement of natural gas utilization* in June 2017.

Clean  
heating in  
northern  
China

The  
prevention  
of air  
pollution

Integration  
and  
development  
of renewable  
energy

Vehicle  
and  
vessel

#### Urban gas

- To promote clean heating in winter in northern China
- To improve the utilization of natural gas of urban residents rapidly
- Break through the use of natural gas in "the last kilometer"

#### Fuel for industry

- To transfer industrial boilers from coal to gas in "the high polluting fuel combustion forbidden zone"
- Substitution and utilization of natural gas in key industries such as glass, ceramics, building materials, mechanical and electrical, textile, etc.

#### Thermal power plant

- Vigorously develop natural gas distributed energy
- To encourage the development of natural gas peak shaving power station
- To develop natural gas cogeneration orderly

#### Transportation

- To speed up the development of natural gas vehicles and vessels
- To speed up the construction of gas filling stations



## II. The Prospects of natural gas industry development in China

### Reform in the field of oil and gas

**Goals of reform:**

**More——Diversification and  
interconnection**

**Faster——To speed up  
construction**

**Better——Survival of the fittest**

**Saving——To improve the  
efficiency and reduce cost**

**Methods:**

**Open**

**Cooperation**

**interconnection**



## **II. The Prospects of natural gas industry development in China**

### **The practice of reform**

- 1. Exploration and development of shale gas and coal-bed methane : mining rights bidding**
- 2 . The conventional oil and gas exploration and development pilot in Xinjiang area**
- 3 . To encourage international cooperation in oil and gas industry:  
The guidance of foreign investment in industry**
- 4. Market reform of natural gas pricing**
- 5. To open and encourage natural gas trade, and to set up trading center**

# **III. Issues and suggestions**

## **Issues of concern in all respects**

- 1. Growth of natural gas consumption is too fast: Supply security**
- 2. Growth of natural gas consumption is much lower than expected: Industrial benefits**
- 3. Whether environmental policy can continue to be implemented: The steady growth of natural gas consumption**
- 4. Changes in policies of pricing: Investment benefits of infrastructure**
- 5. Fluctuations in global natural gas market: Options between long term contracts and spot market**
- 6. Global activities of natural gas exploration and development: Balance between supply and demand**



# **III. Issues and suggestions**

## **Learning Experiences from U.S.**

- 1. Integrity in the industry chain of upstream, midstream and downstream**
- 2. Transparency of market information**
- 3. Open access and competition system**
- 4. unified infrastructure**
- 5. Flexible and efficient consumption system**
- 6. Relatively low cost and price**
- 7. Mature system and framework of regulation**

# **III. Issues and suggestions**

## **Advices for cooperation**

- 1. The communication mechanism between governments**
- 2. Platform for cooperation among enterprises: The alliance of natural gas**
- 3. Communications in thematic meetings**



# **Conclusion:**

**China's natural gas industry has a strong momentum of development, and the desire for natural gas cooperation between China and the U.S. is strong. I believe that the future results will be good. The quality of the process depends on our learning ability and efforts to find win-win cooperation.**





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Thank you !