



25th world gas conference
"Gas: Sustaining Future Global Growth"

Building a new system of natural gas international cooperation for Northeast Asia

By: Runmin He , CNPC
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◆ **The purpose of this research:**

Call for the establishment of the Northeast Asia international cooperation system of natural gas.

◆ **I am major in nature gas policy research. This research is based on personal investigation, representing personal opinion **NOT** the official views.**

- ◆ This article referred to the main natural gas consumption countries in Northeast Asia: China, Japan and South Korea.



Outline

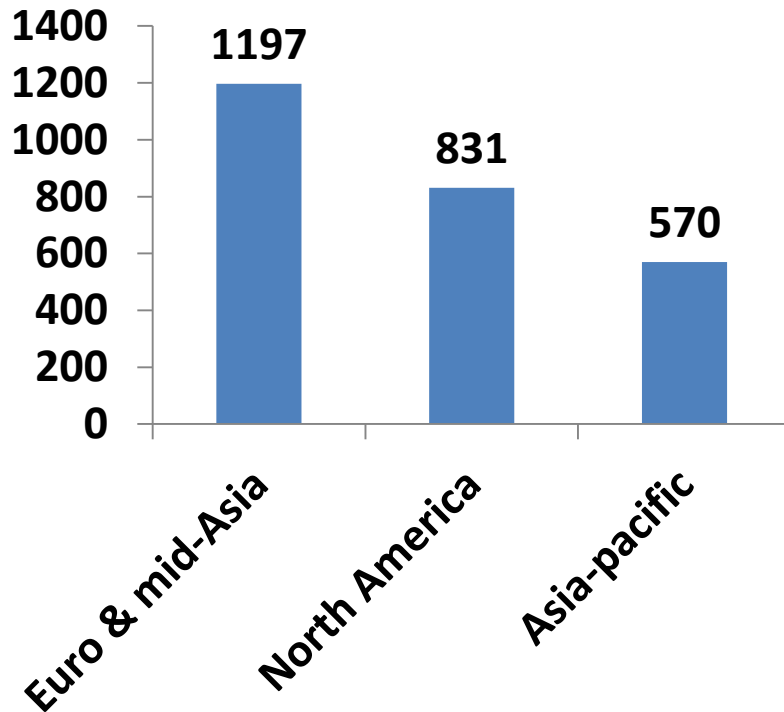
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- 1. Northeast Asia natural gas supply and demand situation**
 - 2. The reasons of establishing cooperation**
 - 3. The basic conditions for cooperation**
 - 4. Conception of The strategic framework for cooperation**

1. Northeast Asia natural gas consumption is nearly half of that of the Asia-Pacific region

In 2000-2010, natural gas consumption was growing faster than oil consumption growth. In 2010, natural gas consumption reached nearly **3.22 tcm**, an increase of 7.5% than 2009.

Northeast Asia natural gas supply and demand situation

Natural gas consumption in 2010 **bcm**



According: CEDIGAZ 2011

Natural gas consumption in Northeast Asia **bcm**

Countries	1990	2006	2007	2008	2009	2010
Japan	58.11	97.24	106.13	103.84	103.36	105.28
Korea	3.04	32.20	34.85	35.83	34.41	42.89
China	15.33	55.58	70.10	80.69	89.21	108.93
totle	76.48	185.02	211.09	220.37	226.98	257.10

According: IEA. Natural Gas Information,2011

Northeast Asia natural gas supply and demand situation

2.China is the only natural gas production country in Northeast Asia



3. Northeast Asia became the world's second largest natural gas import region

According to CEDIGAZ statistics , As the global economic recovery, international gas trade market strongly rebounded and reached 1.0152 tcm (Pipeline 71%, LNG 29%) in 2010.

As the table behind shows, Northeast Asia became the 2nd largest after the European importer of natural gas.

Northeast Asia natural gas supply and demand situation

Natural gas import in Northeast Asia 2010

bcm

Country	LNG import		pipeline gas import	
	Volume	from	Volume	from
Japan and Korea	13.79	Australia, Indonesia, Malaysia, Qatar and Russia	-	
China	13	Australia, Indonesia, Malaysia and Qatar	3.6	Turkmenistan

4. Northeast Asia will become the world's major natural gas consumption and import region in 2030

Asia-Pacific natural gas imports will increase significantly in 2030, imports are expected to reach **490bcm**, become one of the world's biggest natural gas imports region.

Northeast Asia natural gas supply and demand situation

Forecasting of Natural gas consumption and import in Northeast Asia

bcm

Country	2020		2030	
	consumption	import	consumption	import
Japan	110	110		
Korea	53	53		
China			500	250

According: CEDIGAS 2009

Outline

1. Northeast Asia natural gas supply and demand situation



2. The reasons of establishing cooperation

3. The basic conditions for cooperation

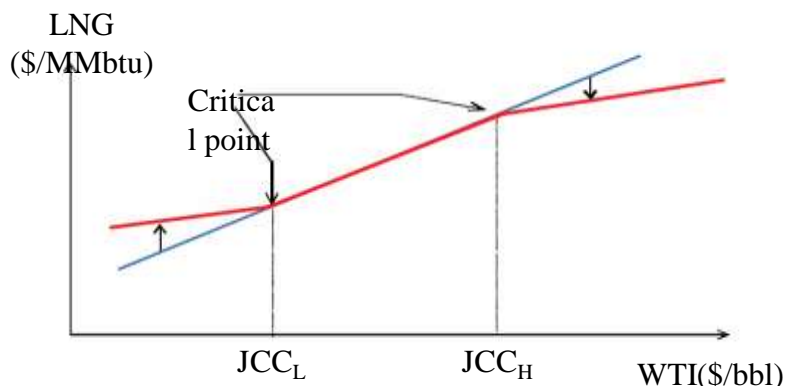
4. Conception of The strategic framework for cooperation

The reasons of establishing cooperation

1. Reducing off natural gas premium level in Northeast Asia

At present, most long-term LNG import contract price in Northeast Asia are hooked by JCC, using the "S" curve price formula. Currently Most LNG receives price in Northeast Asia are in excess of \$15/mnBtu, far higher than that of America and European.

"S" formula



The reasons of establishing cooperation

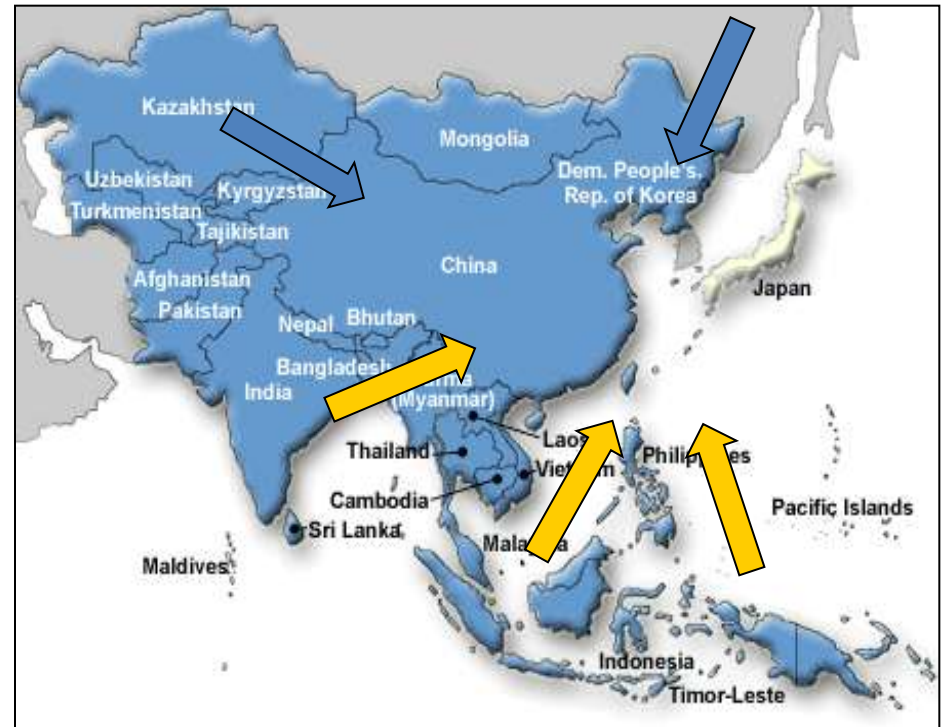
Reasons of “High price” in Northeast Asia:

- Huge demand and too far from LNG origin
- China’s LNG import demand is growing rapidly
- Without spot or trading platform
- lack of common interest protection mechanism

The reasons of establishing cooperation

2. Protecting natural gas supply safety in Northeast Asia

Gas imports of the Northeast Asia are heavily dependent on the Middle East and Asia-Pacific region, threats to the security of gas supply.



Gas supply sources of northeast Asia

3. Promote low carbon development in Northeast Asia region

The three countries all develop a low carbon economy. Northeast Asia's natural gas strategy should be placed in the context of economic globalization.

Outline

1. Northeast Asia natural gas supply and demand situation
2. The reasons of establishing cooperation
- ➔ 3. **Basic conditions for cooperation**
4. Conception of The strategic framework for cooperation

Basic conditions for cooperation

The 3 countries have:

- **Common economic development needs**
- **Common resource security**
- **Aspirations of common energy cooperation**

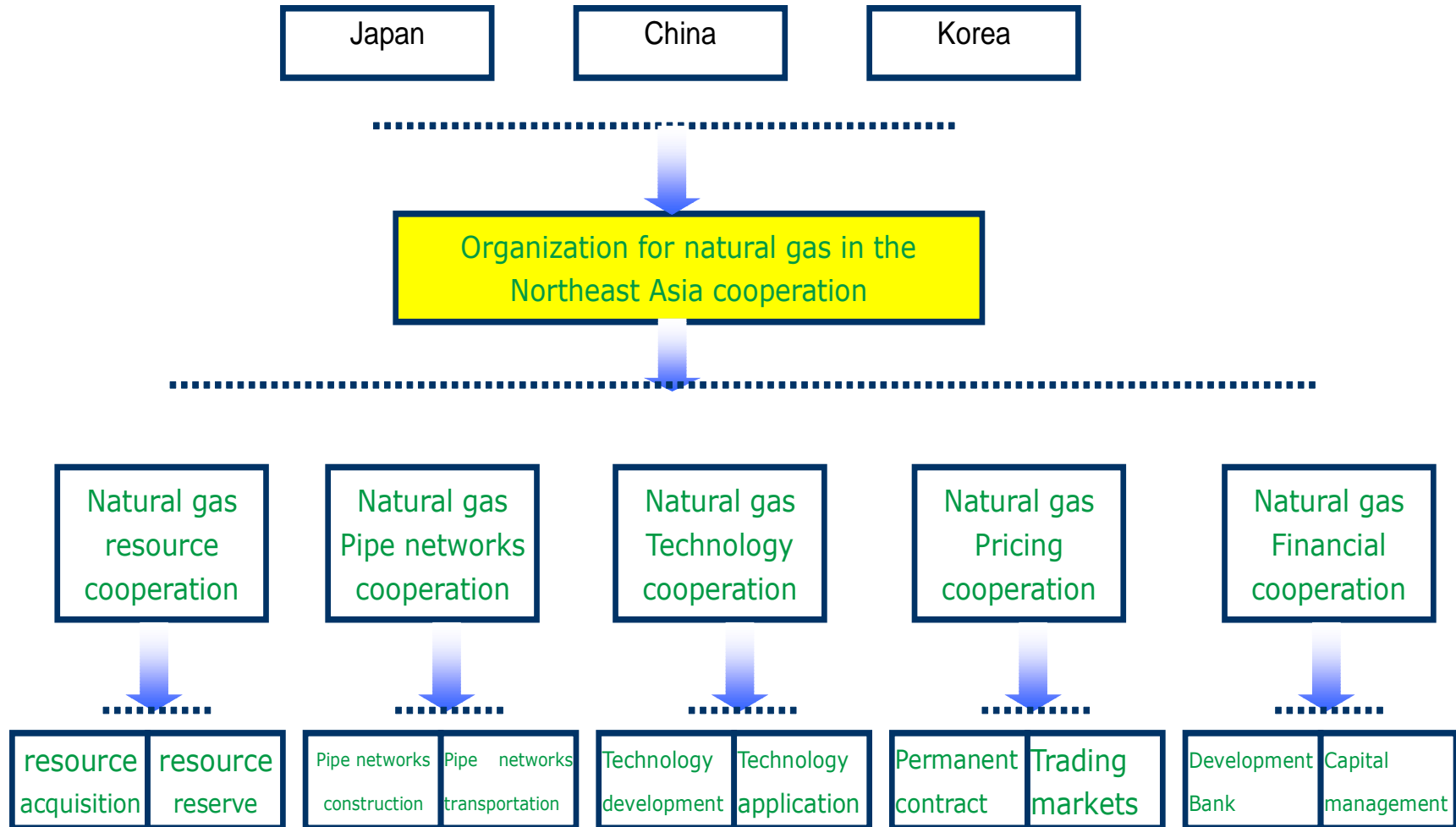
Basic conditions for cooperation

Although there are some natural gas cooperation ideas and practice in Northeast Asia, but under the influence of factors such as geopolitical, truly effective mechanism for cooperation has not been established, has no energy cooperation project that can be integrated energy security interests, to promote and develop mutual understanding and communication between.

Outline

1. Northeast Asia natural gas supply and demand situation
2. The reasons of establishing cooperation
3. Basic conditions for cooperation
- ➔ 4. Concept of the strategy framework for cooperation

Concept of the strategy framework for cooperation



North Asia strategic framework of international cooperation in the natural gas system

◆ Strategic objectives

- Ensure regional sustainable and stable natural gas supply.
- Minimize gas premiums in this area
- Achieve low carbon green growth in the region.

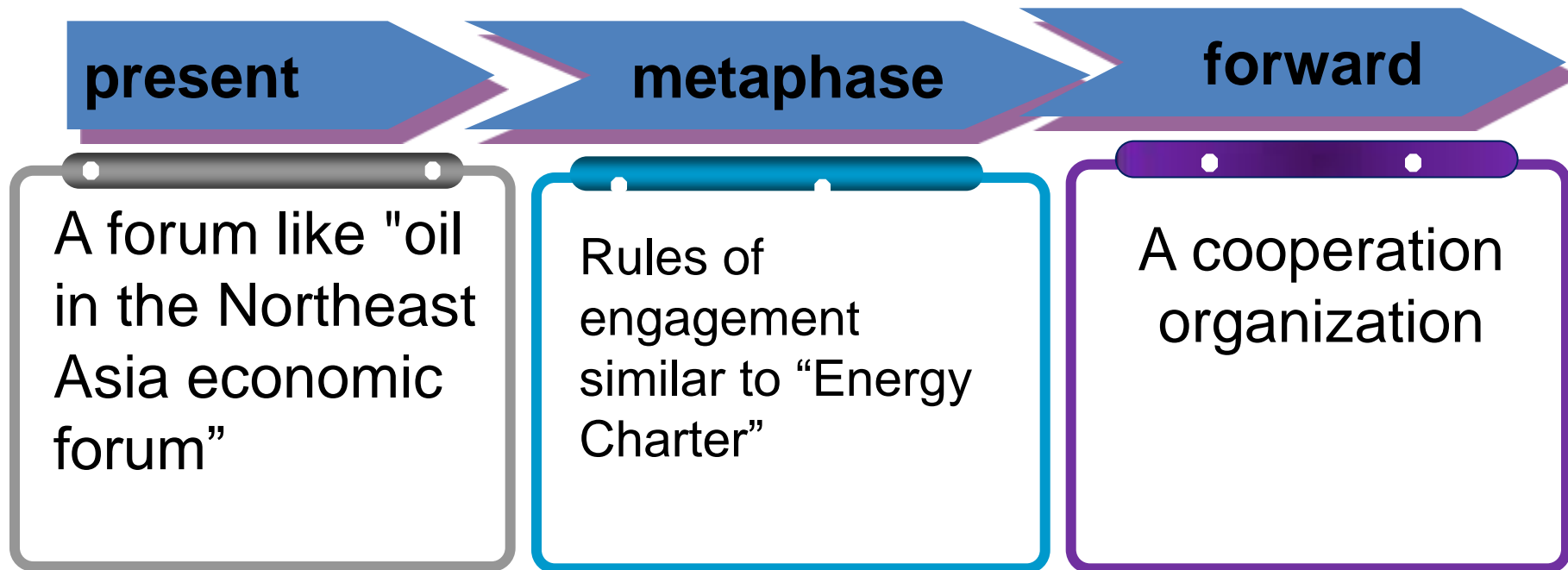
Concept of the strategy framework for cooperation

- ◆ **Strategic principles**
 - Equality and mutual trust
 - Mutual benefit and win-win
 - Honesty

Concept of the strategy framework for cooperation

◆ Strategic tasks and approaches

1. Building natural gas cooperation organization system



◆ Strategic tasks and approaches

2.Cooperation mechanism of construction of natural gas resources

strengthen energy cooperation with Russia, Central Asia, the Middle East, and the Asia-Pacific region .

Japan and South Korea's capital and China's oil & gas exploration technology joint participation in oil & gas development and utilization in the world .

◆ Strategic tasks and approaches

3. Building a natural gas pipeline network cooperation mechanism

Strengthening the planning and construction of natural gas pipelines net for import.

Joint natural gas pipe network schedule.

◆ Strategic tasks and approaches

4. Mechanism for technical cooperation in the construction of natural gas

Use technical advantages of the 3 nations (as the figure behind shows), strengthening natural gas transport, storage and utilization of technology development. Build technology application mechanisms .

Concept of the strategy framework for cooperation



China

Advantage of the technical advantages of pipeline natural gas transport, storage

Japan

Manufacturing technology, environmental protection, energy saving technology

Korea

Manufacturing technology, technological advantages in LNG storage and transport

◆ Strategic tasks and approaches

5. Building natural gas pricing cooperation mechanism

- Combine political and economic cooperation of natural gas, take long-term trade contracts, strengthen formula negotiation with Russia and Central-Asia.
- Strengthen LNG trade cooperation in the Middle East with USA and big companies.
- Establish gas exchange centre in Northeast Asia for spot and futures exchanges.

◆ Strategic tasks and approaches

6. Constructing natural gas financial cooperation mechanisms

- joint to set up a joint venture Bank.
- Develop gas business capitalization .

Conclusion

- ◆ Establishing Northeast Asia natural gas international cooperation system, needs regional within States in equal trust, and mutually beneficial total win, and Frank phase to of principles, desalination geo-political of negative effect, as soon as possible establish natural gas cooperation organization.

Conclusion

- ◆ Through strengthening natural gas resource, pipeline network, technology, gas pricing and financial cooperation, forming long-term, stable supply channel, minimize the premium level of natural gas in Northeast Asia, expanding international gas market voice and influence in Northeast Asia region.

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**Thank you
for your attention!**