

The Geopolitics of Northeast Asia's Pipeline Development

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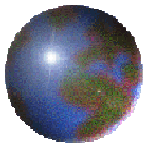
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Key Questions

- (1) To what extent can geopolitics explain development of oil and gas pipelines in Northeast Asia:

Intentions v.s. Realities

- (2) Can Russia exert influence on international relations in NEA by using energy as a political leverage?
- (3) Is there a way to make better use of eastern Russia's untapped oil and gas potential to meet China's surging energy demand?



I . Oil Pipeline

I -1. The East Siberia – the Pacific Ocean Crude Oil Pipeline



I -2. The ESPO pipeline (1st phase)

- Taishet~Skovorodino (2,700km) - commenced in April 2006.
- completed in Dec. 2009.
- spur pipeline to China - Russia was equivocal about the timing of the construction.
- however, to be completed by the end of 2010.
- Max. capacity: 30 mln tons / y
-15 mln tons for China by pipeline
-15 mln tons by rail to the oil terminal in Kozmino



I -3. Russia's Dashed Wishful Thinking (1)

1. Consuming nations "are bound to" compete over Russian oil.
 - ⇒ Domestic stakeholders never had consensus in China and Japan.
 - ⇒ Sino-Japanese rivalry bottomed out.
2. China's geopolitical threat could be counterbalanced by enhancement of Japanese presence in the energy sector.
 - ⇒ Tokyo has refrained from making massive capital investment.
 - ⇒ The presence of Chinese capital stands out so far.

I -4. Russia's Dashed Wishful Thinking (2)

3. Moscow initially wished to postpone the construction of the spur pipeline to China.

⇒ Russia was compelled to rely on Chinese capital and to begin the construction of the spur pipeline in the aftermath of the global financial crisis.

- From 2011, 15 mln tons/y of crude deliveries by pipe to China for 20 years.
- China's \$25 billion loans to Russia (Rosneft & Transneft).

I -5. The ESPO pipeline (2nd phase)

- Skovorodino ~ Kozmino (approx. 2,000km)
- commenced in Jan. 2010
- Max. capacity: **another 50 mln tons** <367 mln bbl>/ y (i.e. a grand total of 80 mln tons <586 mln bbl>/y)
- Proven reserves for this phase is **insufficient** to date.



I -6. Can We Fill Up the 2nd Phase Pipeline?

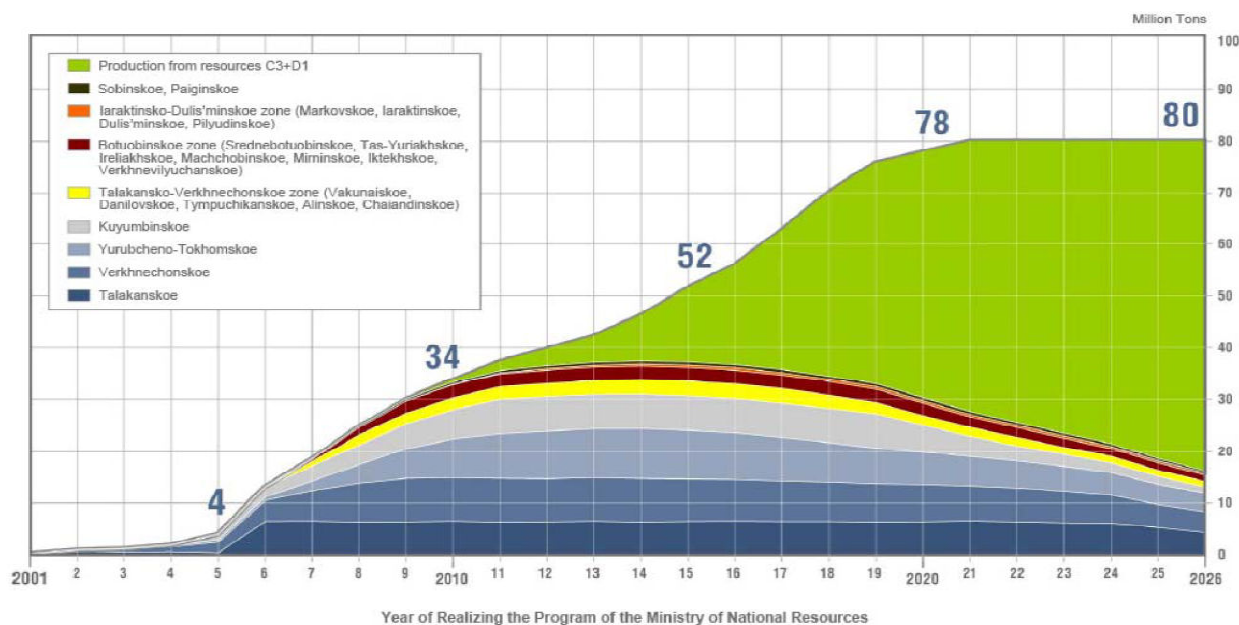
1. The grand total of prospective production in eastern Russia for the ESPO pipeline, if all the ongoing plans come online as scheduled, would be only about 40-45 million tons p.a. in the foreseeable future.
2. It is urgent to increase the volumes of proven reserves in the adjacent areas of the ESPO pipeline:
 - to 1.8 billion tons toward 2020;
 - to more than 3 billion tons toward 2030.
3. Yet, total amount of reserves in major oil fields in the adjacent areas of the ESPO pipeline as of Jan. 2009:
 - 989 million of proven reserves (categories A+B;C₁);
 - 890 million of unproven reserves (category C₂)

(Source: *RES toward 2030*)

(Source: SNIIGGiMS)

I -7. Crude reserves and resources in eastern Siberia

The top green domain, comprised of unproven reserves, must be explored successfully to realize the 2nd phase of the ESPO pipeline extending to the Pacific Ocean



Source: Russian Ministry of Energy and Industry (2007)

<<http://www.minprom.gov.ru/appearance/report/48/VSTO.ppt>>

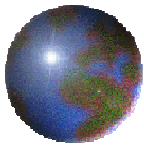
I -8. The Characteristics of East Siberian Oil fields

- (1) Small/medium-sized deposits are geographically dispersed and vastly untapped.
- (2) Huge size of capital investment is required:
 - estimated \$102 billion by the Russian government as of summer 2007 (= approx. 1/3 of federal budget)
- (3) Huge investment risks
 - due to severe climatic conditions; lack of socioeconomic infrastructure; technological difficulties, lack of transparent legal frameworks, etc.
- (4) The result of Federal program of geological exploration in east Siberia (2005~08):
 - **Achieved only 30% of planned increase in proven reserves.**
- (5) The effect of tax preferential measures on Russian domestic oil companies is limited.

I -9. The Future of the ESPO Pipeline

1. With the spur pipeline to China to be completed soon, the 2nd phase pipeline has become all the more important for Russia.
2. Geopolitics is no longer in Moscow's hand:
→ East Siberian development is Russia's Achilles' heel, but consuming nations have the casting vote.
3. Yet, Russia alone can translate its untapped potential into reality only in the limited scale.

➤ *Time is running out for Russia, neither for China nor Japan*



II. Gas Pipeline

II -1. Eastern Gas Program



Source: Gazprom Homepage

II -2. Gazprom's Eastern Gas Program

- Authorized by the Russian government in Sept. 2007.
 - ... but half-baked so far.
 - ... Gazprom needs overhauling the program under the current financial situation.
- Formation of 4 major Gas Centers are under contemplation
 - Sakhalin oblast; the Sakha Republic; Irkutsk oblast; Krasnoyarsk krai
- Planned volumes of gas supplies:
 - To China and South Korea: 25-50 bcm after 2020.
- No specific pipeline routes have yet to be crystallized so far.

II -3. Another Geopolitical Game?

Gazprom v.s. Exxon

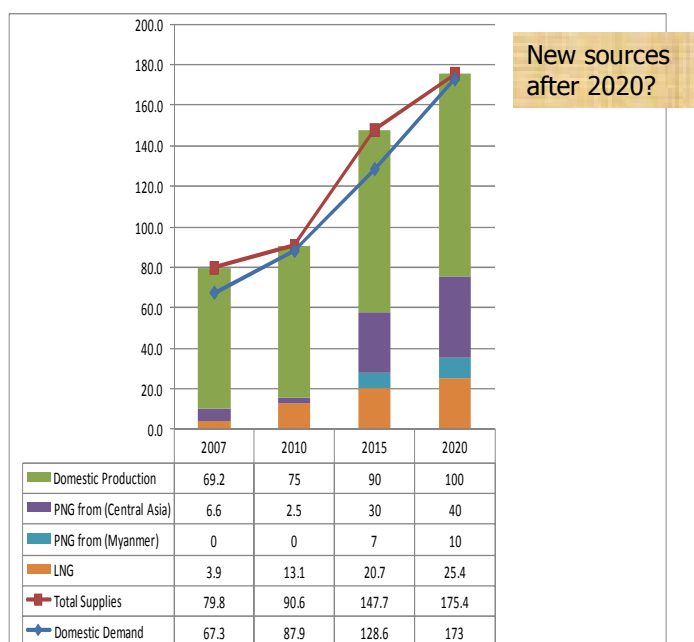
- Sakhalin 1:
 - Domestic gas supplies began (2005)
 - Production comes on line in full swing (planned) in 2012
 - Gazprom will buy 20% for domestic supplies.
 - Gazprom plans to deliver 30bcm (6 bcm for domestic use) p.a. by pipeline to Vladivostok.
- Gazprom has proposed construction of a new LNG plant at the end of the 1,800 km pipeline in Primorsk krai.
- Exxon plans to deliver PNG to China.
- Opinions within Japan is divided again.



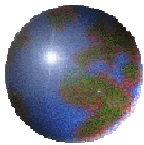
Source: Gazprom HP

II -4. When Will China Need Russian Gas?

- Lesson's from the Kovykta project:
 Moscow ignored the result of the trilateral FS with CNPS and Kogas: (4,900km pipeline to the Korean Peninsula; 20BCM to China).
- Eastern Gas Program all at sea.
- The questionable Altai Pipeline plan.
- The Korean Peninsula factor.
- The "Ukraine Syndrome".



Source: Asiam Research Institute, Inc., Tokyo.



III. What Is To Be Done?

III-1. Policy Recommendations (1)

We should:

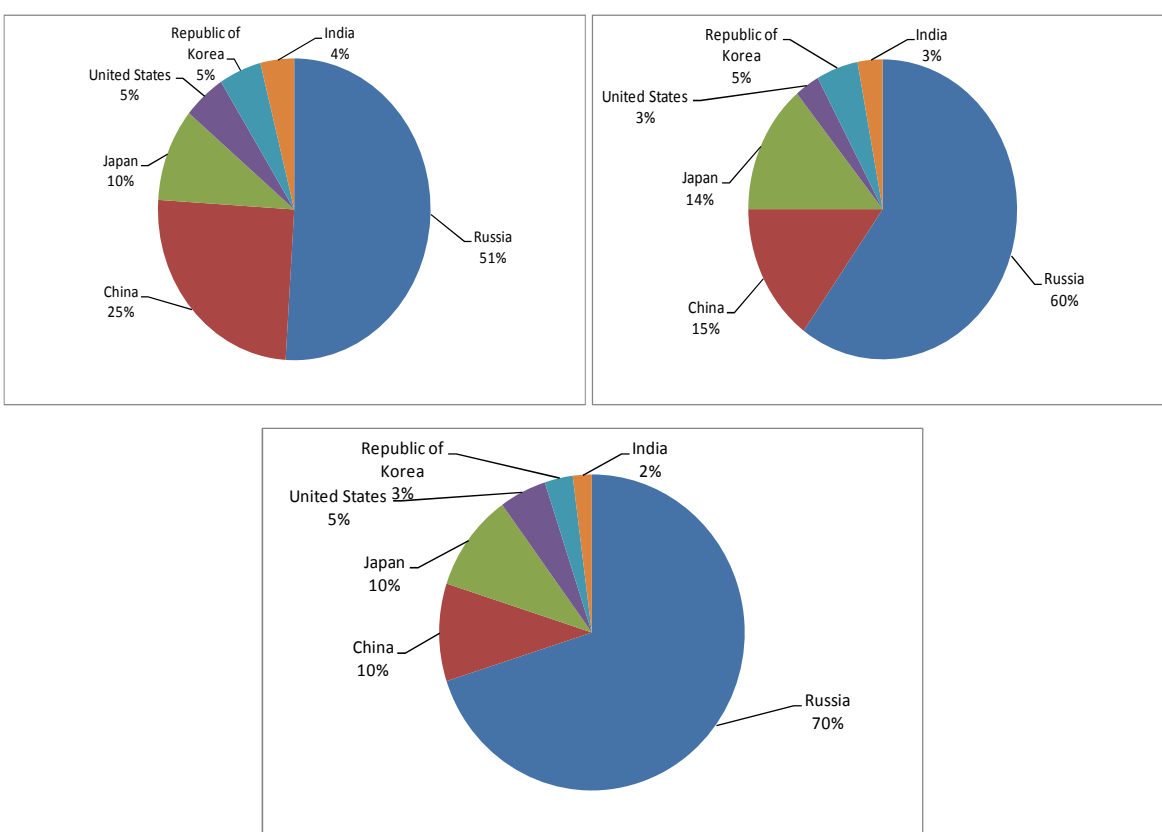
- 1) learn lessons from the meaningless geopolitical game in the 1st phase of the ESPO oil pipeline for its 2nd phase and the future decision of gas pipeline routes;
- 2) encourage enhancement of Sino-Russian energy nexus rather than worry about their camouflaged strategic partnership;

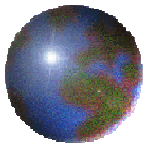
III-2. Policy Recommendations (2)

We should:

- 3) draw a roadmap to make the best of eastern Russia's untapped hydrocarbon potential **to reduce the impact of China's surging energy demand on global energy markets.**
- 4) aim at establishing an international consortium in which **high investment risks can be multilaterally diversified** between Russia and the consuming nations AND among the consuming nations.

III-3. Speculation Scenarios of Investment Portfolio





Thank you very much for your attention!

Спасибо Большое / 谢谢你 / 有難うございました。