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Russia's Energy Politics and New Markets in Asia

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Policy Framework: International

After 9/11, cooperative relationship with both the U.S. and Europe is the central pillar of foreign policy.

Greater centralization of power in Moscow ...,

... but pragmatic agenda with the West:

- (1) anti-terrorism cooperation
 - (2) WMD non-proliferation
 - (3) Energy supply

In 2006, Russia will assume the rotating presidency of the G8, G8 Agenda's focus on energy is in Russia's interests.

Oil Production: Recent Developments

Russia's Oil Production, 2002-2005 (Mt)

Mussia's Oil	i Toddottott, z		1V1C/	
	2002	2003	2004	2005 (est.)
Production	380	421	450	475
Cyporto	100	220	255	275
Exports	180	228	255	275

Policy Framework: Domestic

In January-June 2005, Russia's oil exports stood at 125 Mt

It was valued at \$32.5 billion

Oil exports contributed 33% in Russia's export revenues

Oil share was 53.4% in exports of fuels

(in June, average export price for "Urals" was \$324 per ton)

Domestic Problems

Very difficult socio-economic circumstances, including:

Wide-spread poverty

Low productivity

Unfavorable long-term life expectancy trends

Declining population

In addition to many other shortcomings in:

Education

Public health

Regional development

Government efficiency

Global Output Shares, 1980-2015

	1980	2003	2015
United States	20	21	19
EU25	26	22	17
Japan	7	7	5
China	3	13	19
India	3	6	8
Brazil	4	3	3
Russia	4	3	2
Other	34	25	27

Stabilization Funds (US\$ billion)

	Fund	Assets	Est.
UAE	Abu Dhabi Investment Authority	250,000	
Norway	Government Petroleum Fund	170,000	1990
Kuwait	Kuwait Investment Authority	65,000	1953
Brunei	Brunei Investment Authority	30,000	1983
USA Alaska	Permanent Reserve Fund	29,800	1976
Russia	Stabilization Fund	29,000	2003
Iran	Foreign Exchange Reserve Fund	8,000	1999
Kazakhstan	National Fund	5,200	2000

Oil Exports: Current Priorities

- Avoid transit routes
- Diversify markets
- Upgrade "Urals" blend
- New production in Eastern Russia
- More geological exploration and development
- Build a new pipeline to the Pacific coast ("Project of national significance")

Oil and Gas Exports, 2002 and Forecasts, 2020 (High case)

	Western markets 2002	Western markets 2020	Eastern markets 2002	Eastern markets 2020
Oil & Products, Mt	233	205	5	105
Gas, Bcm	186.4	275		50
Coal, Mt	37	20	10	20
Total, Mtce	583	585	17	250

Eastern Siberia – Pacific Ocean (VSTO) Project

Phase One (2008):

Taishet-Skovorodino

2,400 km

\$6.6 Billion

30 Mt per year

Sea terminal at Perevoznaya Bay

Phase Two (2011 or later):

Skovorodino-Perevoznaya Bay

2,000 km

\$4.9 Billion

50 Mt per year

Taishet-Skovorodino expansion to 80 Mt

Other Projects Related to VSTO Pipeline

<u>First</u>, Rosneft itself made a decision on construction a feeding pipeline, connecting its Vankor fields in Krasnoyarskiy Krai with the Transneft's system. It will be 350 km long with annual capacity of 18 Mt, the volume Vankor will produce in 4-5 years after the beginning of production.

<u>Second</u>, the Talakan field in Yakutia could produce 8-10 Mt of oil by 2010-20012. Surgutneftegaz, the project operator, also announced its plans to build a feeding pipeline that on the way to the south could also connect Verkhnechonskoe field to the VSTO pipeline.

<u>Third</u>, for the TNK-BP, the eastward-oriented projects also likely to be the priority direction, including the development of Verkhnechonskoe field with 201.6 Mt in reserves. The indication is the recent decision by the company to allocate \$270 million for the test phase of oil production and plans to coordinate production with the VSTO pipeline project.

<u>Fourth</u>, the Natural Resources Ministry has published a list of 104 blocks that to be offered for exploration by private companies. The list supplements a similar catalog of 137 prospects published earlier.

Uncertainties and Development Approach

Only about 1,500 Mt is currently available in Eastern Siberia and the Far Eastern Region:

- 1. Move available 2 volumes of oil to
- 2. Exploration work program supported by Government (add 1,500 Mt to reserves and 1, 500 Mt to resources)
- 3. Legislation: Amended Law on Subsoil Use
- 4. Comprehensive licensing to developers
- 5. Exceptional development rights for "strategic projects"
- 6. State control over the delivery infrastructure (pipelines)
- 7. New role for GAZPROM and ROSNEFT

Sakhalin Offshore Oil Reserves (Mt)

	Reserves	Production Peak	
Sakhalin-1	305	12	
Sakhalin-2	185	9	
Sakhalin-3	450	20	
Sakhalin-4	320	7	
Sakhalin-5	900	40	l l
Sakhalin-6	180	5	
Other	100	3	
Total	2,440		13

Natural Gas in Eastern Russia

	2010	2020	2030
Extracting potential	60	160	190
Regional domestic demand	15	29-35	44
Additional domestic demand	15	51	80
External demand	17	40	50
Anticipated production range	32-47	79-130	130

New Gas Production Centers (Bcm)

	Resources	Extracting potential
Krasnoyarsk	12,000	35
Irkutsk	8,000	46
Yakutiya	10,000	53
Sakhalin	6,000	56

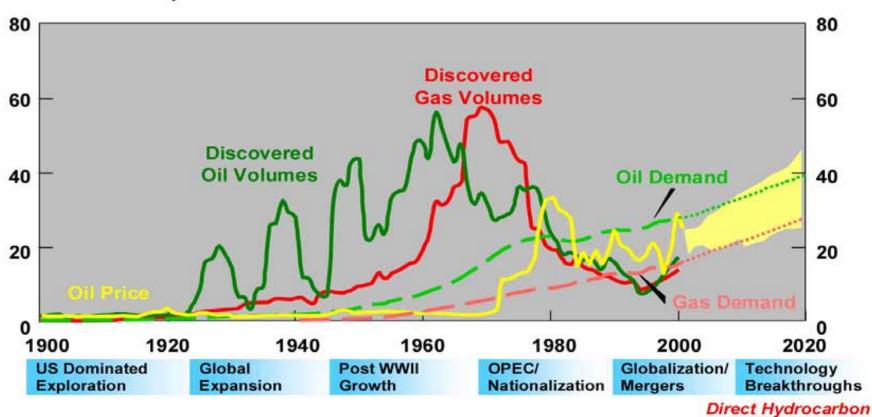
Natural Gas: Uncertainties and Concerns

- The future of Kovykta project, prospects for separation of helium and its storage
- The separation of other valuable components for export-oriented industrial use
- Prospects for gas transformation technologies and exports of liquids
- Prospects for region-to-region export supply projects
- Prospects for new urban areas development
- Prospects for agricultural settlements improvement
- The protection of the coal industry interests in Eastern Russia
- Pricing, domestic and international
- Uncertainties related to exports pipelines to China and Koreas

Oil Price Projections by ExxonMobil

Historical Perspective

Billions of Oil-Equivalent Barrels / US Dollars



Visualization 3D Seismic

Detection?

METI's FY 2006 Economic and Industrial Policy: Key Points

Securing stable energy supply by strengthening fuel strategy:

- independent development of oil and natural gas in such strategic areas as Russia
- diversification of supply sources
- protection of Japanese mining rights in the East China Sea and other areas
- strengthening Japan's relationship with oil and gas supplier nations
- promotion of natural gas-related research and development.

Sakhalin Offshore Gas Reserves (Bcm)

	Reserves	Production Peak	
Sakhalin-1	485	20	
Sakhalin-2	800	13	
Sakhalin-3	1,400	50	
Sakhalin-4	950	25	
Sakhalin-5	1,250	50	l l
Sakhalin-6	400	5	
Other	225	4	
Total	5,510		19

Prospects for Electric Power Exports (1)

- In Japan, the commercial and residential users of electricity together formed the leading source of demand
- In South Korea, this turning point in the demand equation could be reached soon

- the demand for electricity in China already surpassed the combined demand on the part of Japan and South Korea
- 2020—the target year set by the Chinese government for quadrupling the size of its GDP

Prospects for Electric Power Exports (2)

The policy component behind the cross-border power interconnections currently under review may have a very significant influence on the long-term investment plans and specific projects.

There are indications that such policy support could be available in case of the trans-border transmission projects between Russia and China.

On the other hand, the chances of building a trilateral consortium, involving the DPRK, the ROK and Russia are less favorable

What is possible is a trilateral agreement between Russia, China and the ROK.

Conclusions

LINKED CHALLENGES:

- energy security
- rising energy prices
- climate change

RESPONSES:

- (1) the development of the most cost effective policy mechanisms
- (2) coordinated international policy framework
- (3) other