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Russia's Energy Policy and New Markets in Asia

Vladimir I. Ivanov
Senior Economist, Research Division Director
Economic Research Institute for Northeast Asia
(ERINA, <http://www.erina.or.jp>)

International Policy Framework

In 2006, Russia will assume the rotating presidency of the G8,
The G8 Agenda's focus will be on energy security and energy efficiency.

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

Greater centralization of power in Moscow ... ,

... but pragmatic agenda with the West:

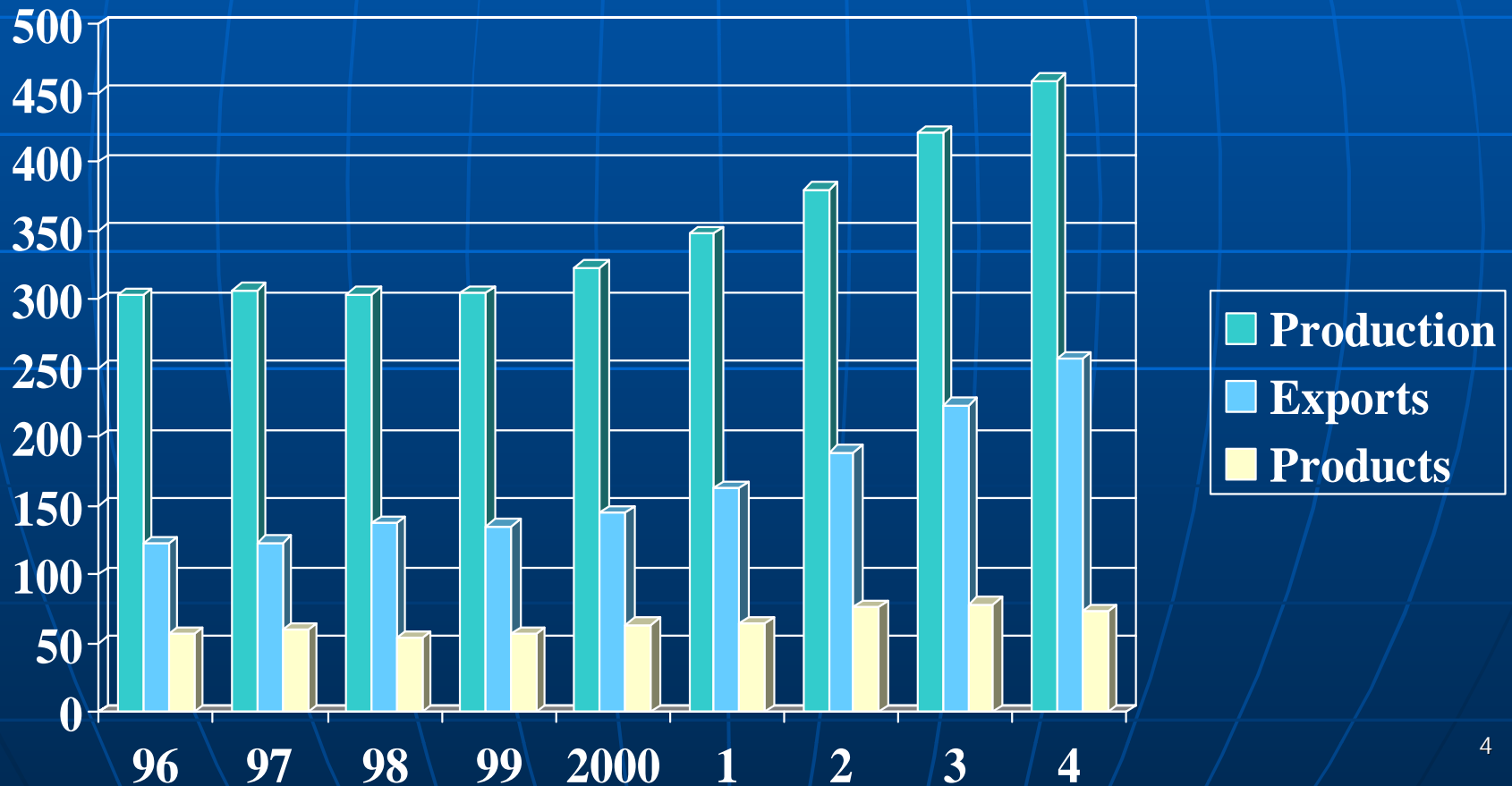
- (1) anti-terrorism cooperation
- (2) WMD non-proliferation
- (3) **Energy supply (9/11)**

Oil Production and Exports, 1996-2000 (Mt)

	1996	1997	1998	1999	2000
Production	303	307	304	305	323
Consumption	130	129	124	126	124
Oil exports (non-CIS)	105	110	118	116	128
Oil exports (CIS)	17	13	19	19	17
Product exports (non-CIS)	55	59	51	54	59
Product exports (CIS)	1.8	1.5	2.7	3.0	3.5

Oil Production, 1996-2004

Oil and Products Exports



The “Oil Factor”

- ❑ In January-October 2005, oil exports stood at 209 Mt
- ❑ In the first 6 months of this year it was valued at \$32.5 billion
- ❑ Oil exports contributed 33% in Russia's export revenues
- ❑ Oil share is above 50% in the exports of fuels
- ❑ The Stabilization Fund (\$30 billion in 2005) could expand to \$100 billion by 2008, reaching one-third of the projected hard currency and gold reserves.

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Oil: Recent Developments and Prospects

(2004 projections, Mt, *Source: Ministry of Industry and Energy*)

	2001	2002	2003	2004	2005 (est)	2015 (\$25 bbl-\$35 bbl)
Production	348	380	421	459	478	540-580
Consumption	122	124	125	128	130	150
Oil exports (non-CIS)	138	156	186	217	235	285-320
Oil exports (CIS)	24	33	37	40	40	45-48
Product exports (non-CIS)	61	73	74	70	70	55-57
Product exports (CIS)	2.5	2.6	3.5	3.2	3.0	5.0

Oil Production and Exports, 1987 (Russia only), and 1997-2000 (Mt)

	1987	1997	1998	1999	2000
Production	571	307	304	305	323
Consumption		129	124	126	124
Oil exports (non-CIS)		110	118	116	128
Oil exports (CIS)		13	19	19	17
Product exports (non-CIS)		59	51	54	59
Product exports (CIS)		1.5	2.7	3.0	3.5

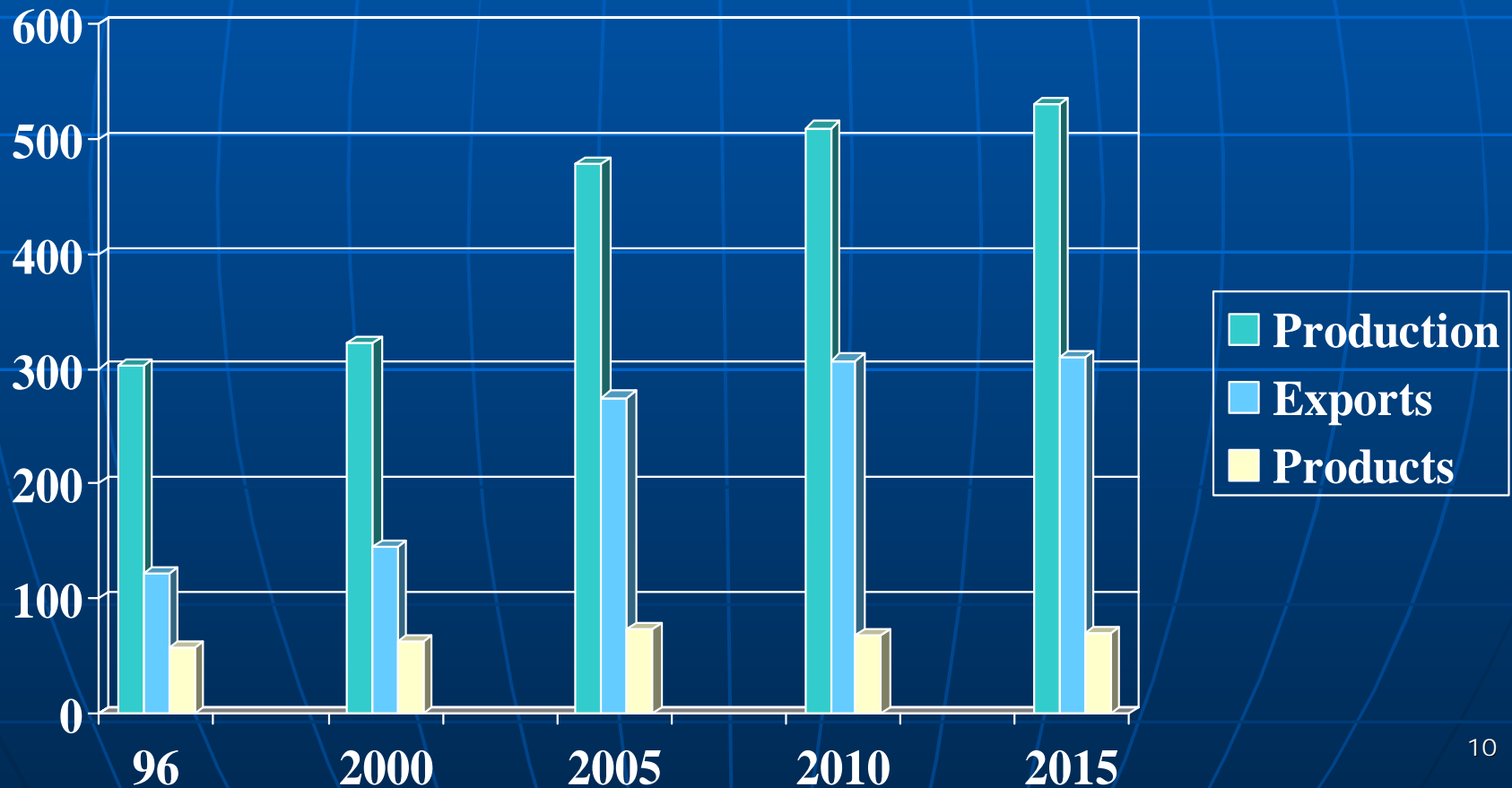
Oil: Recent Developments and Prospects

(2005 projections, Mt, *Source: Ministry of Industry and Energy*)

	2001	2002	2003	2004	2005 (est)	2015 (frcst)
Production	348	380	421	459	478	530
Consumption	122	124	125	128	130	150
Oil exports (non-CIS)	138	156	186	217	235	264
Oil exports (CIS)	24	33	37	40	40	46
Product exports (non-CIS)	61	73	74	70	70	65
Product exports (CIS)	2.5	2.6	3.5	3.2	3.0	5.0

Oil Production, 2000-2015 (2005 projections)

Oil and Products Exports (Mt)



Capacity of the Export Pipeline System, 2003-2015

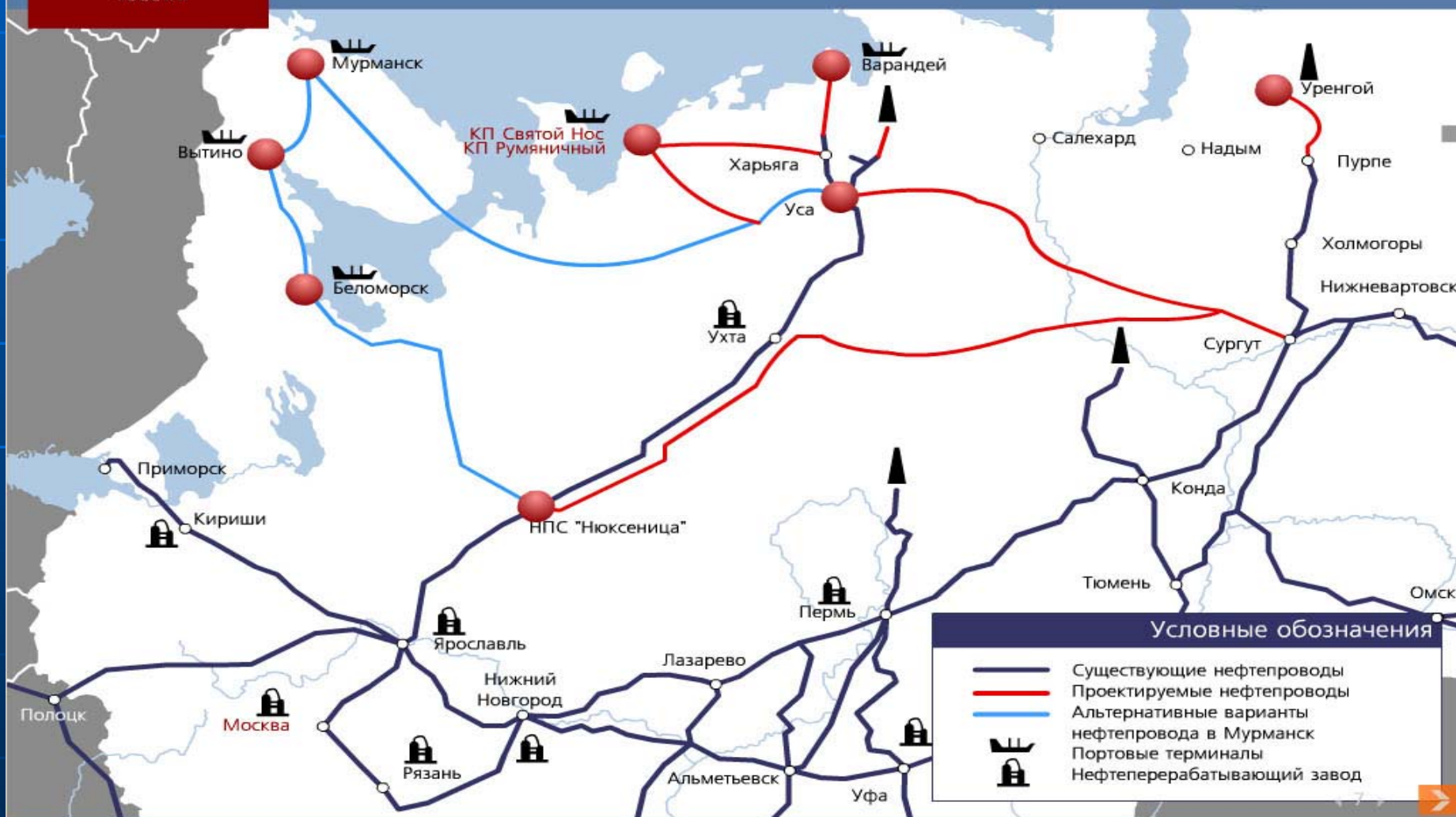
(Million tons a year)

	2003	2005	2010	2015
Baltic Trunk-line System	30	50	60	60
Other North-West Ports	6	15	15	15
"Druzhba" Pipeline	63	66	66	66
Transneft Black Sea	63	63	63	63
Caspian Trunk-line Consortium	20	28	67	67
Pacific Pipeline			30	50
TOTAL	182	222	271	321

The Northern Pipeline (Barents Sea)



СХЕМА МАГИСТРАЛЬНЫХ НЕФТЕПРОВОДОВ НА ЗАПАДЕ РОССИИ ЦЕЛЕВОЙ ВАРИАНТ



Oil Exports: Current Priorities

- Avoid and/or reduce dependence on transit routes
- Diversify markets (Asia-Pacific region)
- Upgrade "Urals" blend
- New production centers in Eastern Russia ...
- ... that require geological exploration ...
- ... and a new pipeline to the Pacific coast ("Project of national significance")

The Pacific Pipeline, De-Kastri and Sakhalin Oil Pipeline Projects, and Oil-by-Rail to China



Eastern Siberia – Pacific Ocean (VSTO) Project

Phase One (2008):

Taishet-Skovorodino

2,400 km

\$6.6 Billion

30 Mt per year (to be commissioned on November 1, 2008)

Sea terminal at Perevoznaya Bay (November 8, 2008)

Phase Two (2011 or later):

Skovorodino-Perevoznaya Bay

2,000 km

\$4.9 Billion

50 Mt per year

Taishet-Skovorodino expansion to 50 Mt and 80 Mt

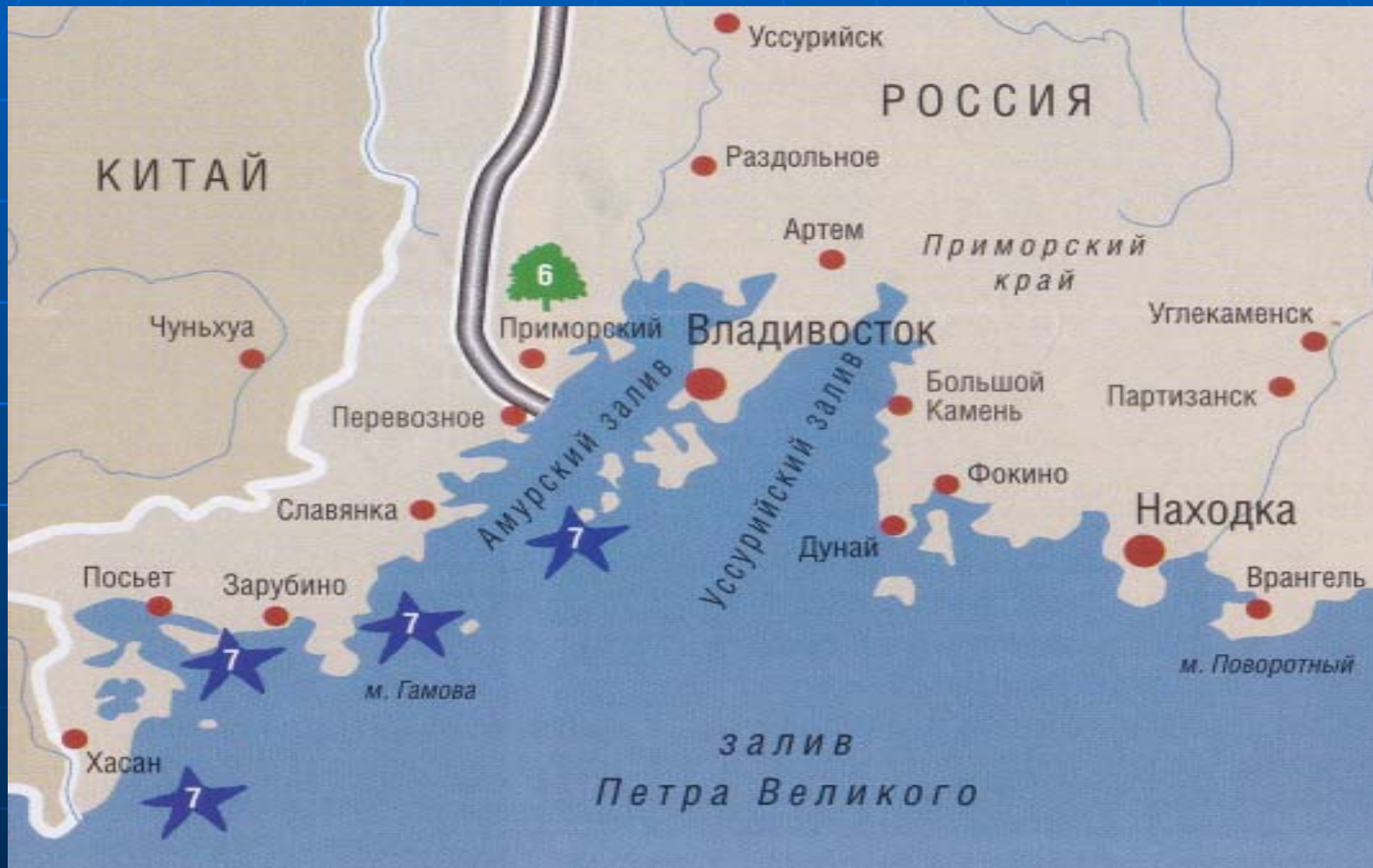
Other Projects Related to Pacific Pipeline

First, Rosneft 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.

Second, 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.

Third, 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.

Environmental Concerns



Uncertainties and Plans (1)

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

1. Move available C_2 volumes of oil to $A B C_1$
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 ...

... BUT ...

5. Exceptional development rights for "strategic projects"
6. State control over the delivery infrastructure (pipelines)
7. New roles for GAZPROM and ROSNEFT

Uncertainties (2)

In 2004, only 21 new oil fields entered the production with the total output of only 150,000 tons, requiring the drilling of 145,000 meters of new wells.

- Reserve replacement severely lags behind production
- A deceleration in production and yield
 - (about 50% in the output from 25 tons/day in mid-1990s to 10 tons/day now)
- Obsolescent refineries and low processing depth
- Uncertainties related to legal and fiscal regulations
 - No tax benefits for hard to recover reserves
 - No tax benefits for green-field projects in frontier areas
- Most Russian oil companies are opposed to the transition to auctions in subsoil use license allocation because they are fearful of foreign competition.

Law on Subsoil Use 2005 (Draft)

The government wants to improve the tax regime for the oil sector by introducing a differentiated production tax and provide greater stability to the user-state relationships via amended Law on Subsoil Use.

Single-stage bidding for exploration and production rights

Open auctions for licenses

Dispute settlement in court

Government wants:

- (1) Encourage investment in exploration
- (2) Rationalize the resources utilization
- (3) Introduce effective control over the license use
- (4) Increase budget revenue
- (5) Provide more support to the regions

Eastern Siberia and the Far East Oil Reserves (Mt)

	Reserves (proven and estimated)	Production max. (per year)
Evenkiyskiy District and South of Krasnoyarskiy Krai	696	45
Irkutskaya Oblast and Yakutia's South-west	677	22
Total	1, 373	67

Source: Ministry of Industry and Energy

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
Sakhalin-6	180	5
Other	100	3
Total	2,440	--

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 in Eastern Russia (1)

Source: Ministry of Industry and Energy

	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

Natural Gas in Eastern Russia (2)

Source: Ministry of Industry and Energy

	Russia	Eastern Siberia	Far Eastern Region	Eastern Russia, Total
2005	635	3.8	4.4	8.2
2010	685	9	28	37
2015	740	52	42	94
2020	770	58	72	130
2030	--	65	80	145

Exploration Program, 2005-2030 (Estimates)

	Drilling for gas (thousand meters)	Anticipated added reserves (Bcm)
Eastern Siberia	2,300	4,100
<i>Krasnoyarskiy Krai</i>	1,500	2,600
<i>Irkutskaya Oblast</i>	800	1,500
Far Eastern Region	1,200	2,600
<i>Yakutia</i>	400	800
<i>Sakhalin</i>	600	1,500
<i>Other</i>	200	300
TOTAL	3,500	6,700

Natural Gas: Uncertainties and Concerns

- The future of Kovykta project, prospects for separation of helium and its storage (estimated cost of the plant is \$220 million and \$1 billion for storage)
- Gas processing export-oriented industries
- Prospects for the domestic trans-region supply projects
- Prospects for gas in urban areas and rural settlements
- The coal industry interests
- Pricing, domestic and international
- Uncertainties related to exports pipelines to China and Koreas

Natural Gas: Transportation Options

Схема транспортировки природного газа Восточной Сибири и Дальнего Востока (вариант ЦЕНТР) №9



Integrated Gas Program for Eastern Russia (Public-Private Partnership)

Status: Delayed

Actors: Gazprom (principal pipeline developer)
Rosneft (interested party)
TNK-BP (principal Kovykta gas field developer)
Ministry of Industry and Energy
Ministry of Economic Development & Trade
Ministry of Natural Resources
Ministry of Regional Development
Federal Agency on Subsoil Use

Goals: Risks Management & Reduction
Market access
Investment returns
Resources related

Strategy: Synchronization of oil and gas projects

Integrated Gas Program

(Risk Reduction Measures)

Market access:

1. *Domestic users and local gasification*
2. *Long-term supply contracts*
3. *Inter-governmental agreements*

Investment returns:

1. *Tax breaks for companies investing in projects*
2. *Synchronized development of oil and gas*
3. *Transportation tariffs*

Resources related:

1. *Revised licensing agreements*
2. *Helium separation and utilization*
3. *Associated gas utilization*

METI's FY 2006 Economic and Industrial Policy

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
Sakhalin-6	400	5
Other	225	4
Total	5,510	--

GAZPROM to Enter LNG Business

GAZPROM – Petro-Canada agreement on 5 Bcm capacity liquefaction plant near St Petersburg (\$1.5 billion) to export LNG to North America by 2010

- GAZPROM also held consultations on LNG with ChevronTexaco and Statoil
- GAZPROM plans to export 10-15 Bcm of LNG to the United States
- In Asia, GAZPROM can gain an access to LNG business by entering an agreement with RD Shell via a stake in Sakhalin II (20-25%) in exchange for share in Zapoliarnoe feild
- Also, GAZPROM could form a partnership with ExxonMobil through its stake in Sakhalin I project

GAZPROM--ChevronTexaco Memorandum of Understanding

ChevronTexaco: "The development of a global, integrated natural gas business is a cornerstone of our own growth strategy."

GAZPROM: "... access to the American gas market is strategically important ... bring advanced LNG production and transportation technologies to Russia."

Russia-EU25 Energy Dialogue

Background: "Common European Economic Space"

Energy Dialogue, 2004-2005:

Long-term gas contracts

No numerical import restrictions

Contracts' confirmation on nuclear fuel (new EU members)

Electricity grid interconnection and markets integration

Strategic oil stockpiling: Joint study

Transit of energy to Kaliningradskaya Oblast

Yamal-Europe and Northern European gas pipelines

Investment promotion and long-term financing

Non-commercial investment risks reduction

Infrastructure development and technology cooperation

Oil shipments by rail

Russia-EU Technology Center (energy efficiency)

Pilot projects by TASSIS

Bio-mass energy (EU research program)

Maritime traffic security and oil spills prevention

Russia-India Energy Dialogue

Energy Working Group (11 meetings)

Joint projects by Gazprom with GAIL and ONGC

Gazprom-GAIL Strategic Cooperation Agreement (December 2004)

Gazprom-ONGC Memorandum of Understanding (February 2005)

Rosneft-ONGC cooperation in Sakhalin-1 project

Equipment exports to India (energy and electric power)

Construction projects in India, including pipelines

R&D cooperation

Russia-United States Energy Dialogue

Framework: 2005 Joint Statement on Energy (Bratislava)
2002 New Energy Dialogue
Ministers of Energy, Trade visits (2005)
Visits by Gazprom, RAO UES and
ExxonMobil, Conoco, Chevron
Energy Working Group (since 2002, 6 sessions)
Energy Business Summits (2002, 2003)

U.S. interests: Global supply stability
Diversification of supply sources
Investment opportunities

Russia's interests: Additional investment resources
Advanced technologies
Diversification of markets

Conclusions

The government is to decide over the next two to three months on the allocation of tax breaks for companies investing in green field projects in Eastern Siberia and Russia's offshore.

Companies could be granted tax holidays of up to seven years during the development stage of new projects to cover the costs of financing the project.

Other measures being considered to accelerate the exploration and development of oil and gas resources, including production tax differentiation.

Russia's Oil Exports to the U.S.

The U.S. Department of Energy estimate:

Oil imports from Russia reaches 20 million tons in 2005

Share of the U.S. market (ranking):

2005	3.6%	(8),	0.476 Mbd, including 0.35 Mbd of crude oil
2004	2.3%	(12),	0.205 Mbd

From October 2005:

Oil from Sakhalin-1, ExxonMobil

Target: 1.0 Mbd (4-5 in ranking), including shipments by LUKoil via Khariyaga - Indiga oil pipeline

Prospects: URALS used for the U.S. Strategic Oil Reserves?