Transit Dimension in Russian Energy Strategy

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Outline of the presentation

- Energy Strategy and Energy Security
  - Conceptual framework
  - Where does Russia fit?
  - Russian Energy Strategy until 2020
- Russian Energy Strategy under Putin
  - Main features
- Transit in Russian Energy Strategy

Russian Energy Strategy
Various aspects

Topics

Technological Aspects

Legal Aspects

Energy Strategy

Environmental Aspects

Resource Aspects

Economic Aspects

Political Aspects

Actors

Producer

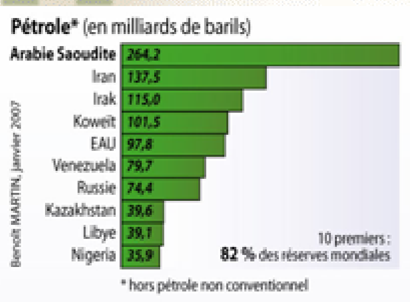
Transit

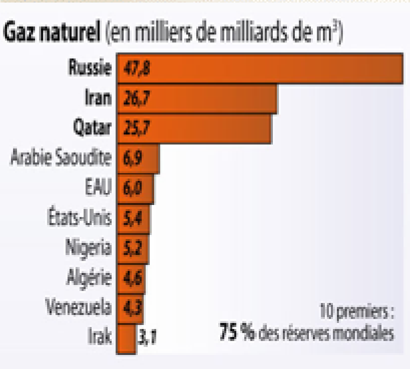
Customer

Russian Energy Strategy

- 2003 Energy Strategy of the Russian Federation until 2020
- Implementation under Putin
- 2007 Extension: Energy Strategy of the Russian Federation until 2030

Russian Energy Strategy
Oil and Gas Game





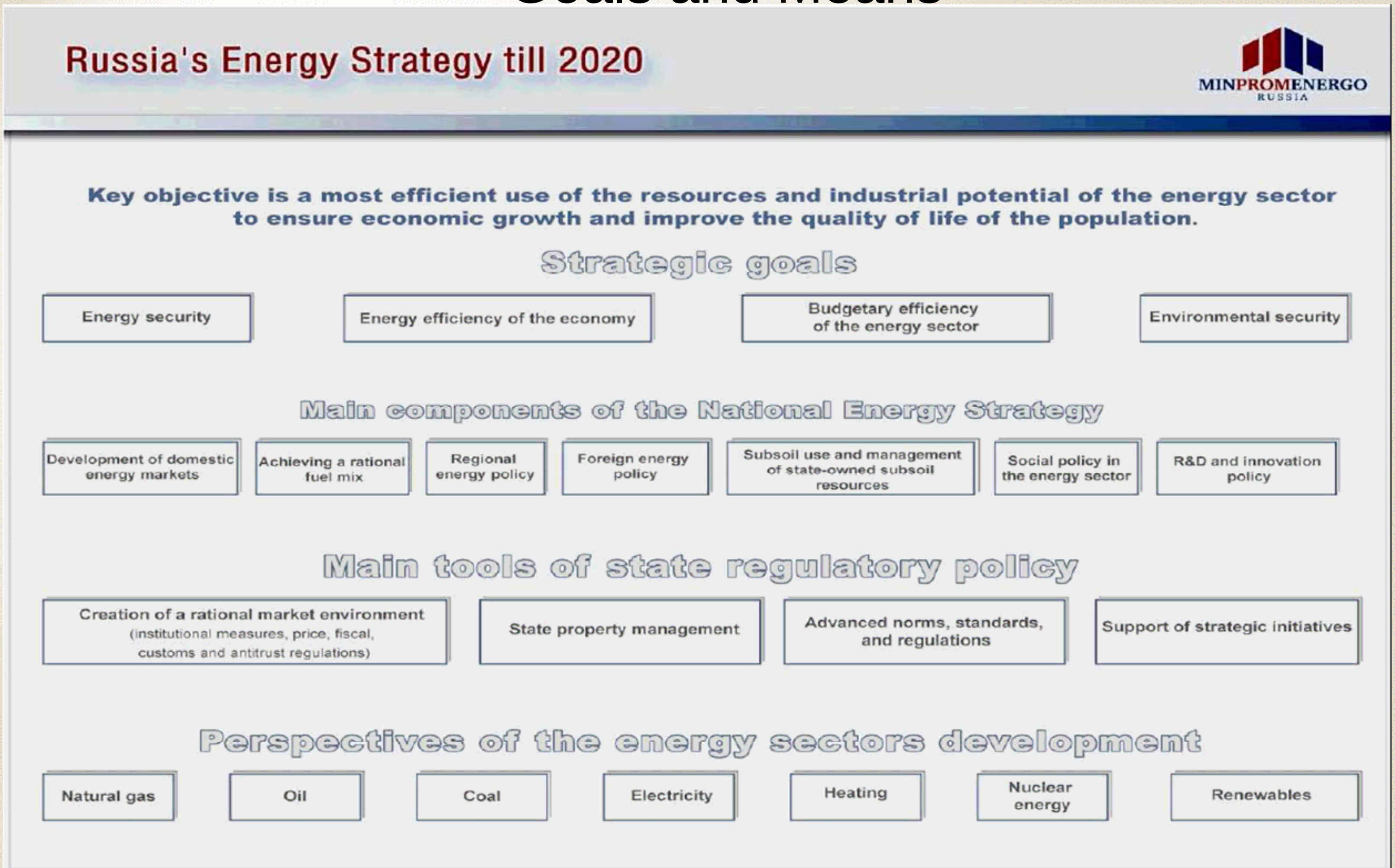
Oil

- Limited reserves
- Short and mid-term contracts
- Transport routes with geographic bottlenecks
- Global markets, but the EU important
- The US and APR as the two most promising ’emerging markets’ for Russian oil

Gas

- Biggest reserves in the world
- Long-term strategic partnerships
- Costly and ’rigid’ infrastructure
- Local markets, the EU as the main customer
- New technology – new markets: LNG and the US market?

Russian Energy Strategy until 2020
Goals and Means



2003 Strategy on transit

- Forming of the common energy and transport infrastructure in the regions of Europe and Asia, development of the international energy and transport systems, providing of the undiscriminatory transit of energy answer the strategic interests of Russia.
- For Russia, which has a unique geographical and geopolitical position, problems of transit have a special meaning. According to this, Russia has all the necessary premises for being provided with energy resources, their effective export and receiving of a good income from its transit functions.

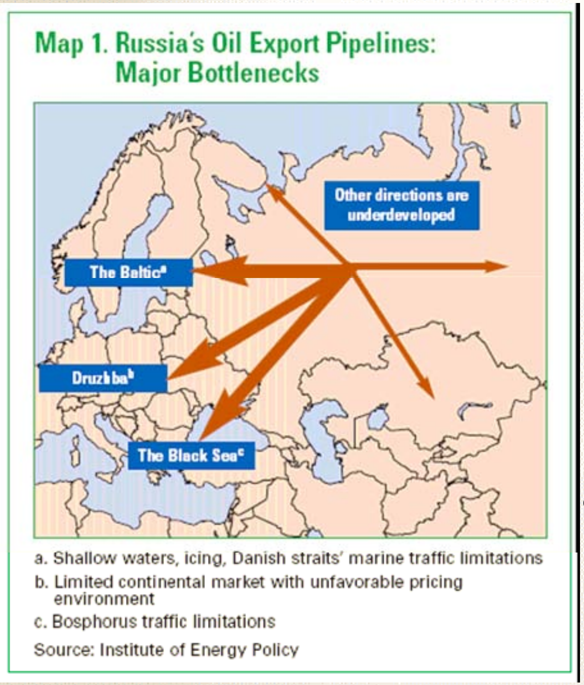
Energy Strategy of Putin's Russia

- Adoption of a comprehensive strategic approach to the energy sector
- Consolidation of the state's role
- Strengthening of the link between the country's political and economic elite
- The state's control of the pipeline system
- Strategy of transit avoidance and transit control
- Policy of preventing other actors' access to markets
- Use of energy as a political tool
- Limitation of the role of Western companies in the Russian energy sector
- Downstream and midstream investments
- Formal and informal coalitions with other energy producers

Transit in Russian Energy Strategy

- Transit of Russian gas and oil through territories of other countries
  - Russian gas to Europe
    - 40% of EU’s gas import; 19% of the total consumption of gas
    - 70 % through Ukraine
    - 20% through Belarus/Poland
    - Political risks, economic costs, transport bottlenecks → lack of control
    - Nord Stream and South Stream → transit avoidance
- Russia as a transit country
  - Central Asian suppliers to Ukraine
    - 42-51 bcm in 2009
  - Transit from production sites to customers in Russia / abroad
    - Gazprom’s / state monopoly on export → transit control
- Russia as a target country – transit of supplies to Russia through other countries?
  - Gas from Turkmenistan/Uzbekistan to Russia: CACR through Uzbekistan/Kazakhstan
    - Turkmenistan → 80 bcm in 2009 of which ca.50% to Ukraine
    - Uzbekistan → ca 6 bcm in 2007

Transit in Russian Energy Strategy
Challenges and Responses



- Geopolitical challenges
  - New energy constellations?
    - Baku-Erzerum
    - Trans-Caspian
    - Nabucco → South Stream
    - Trans-Afghan
    - Central Asia – China
    - Opening of Iran?
- Technological challenges
  - LNG
    - New types of transit challenges: similar transport bottlenecks as in transport of oil
      - Murmansk as a new gas and oil hub?

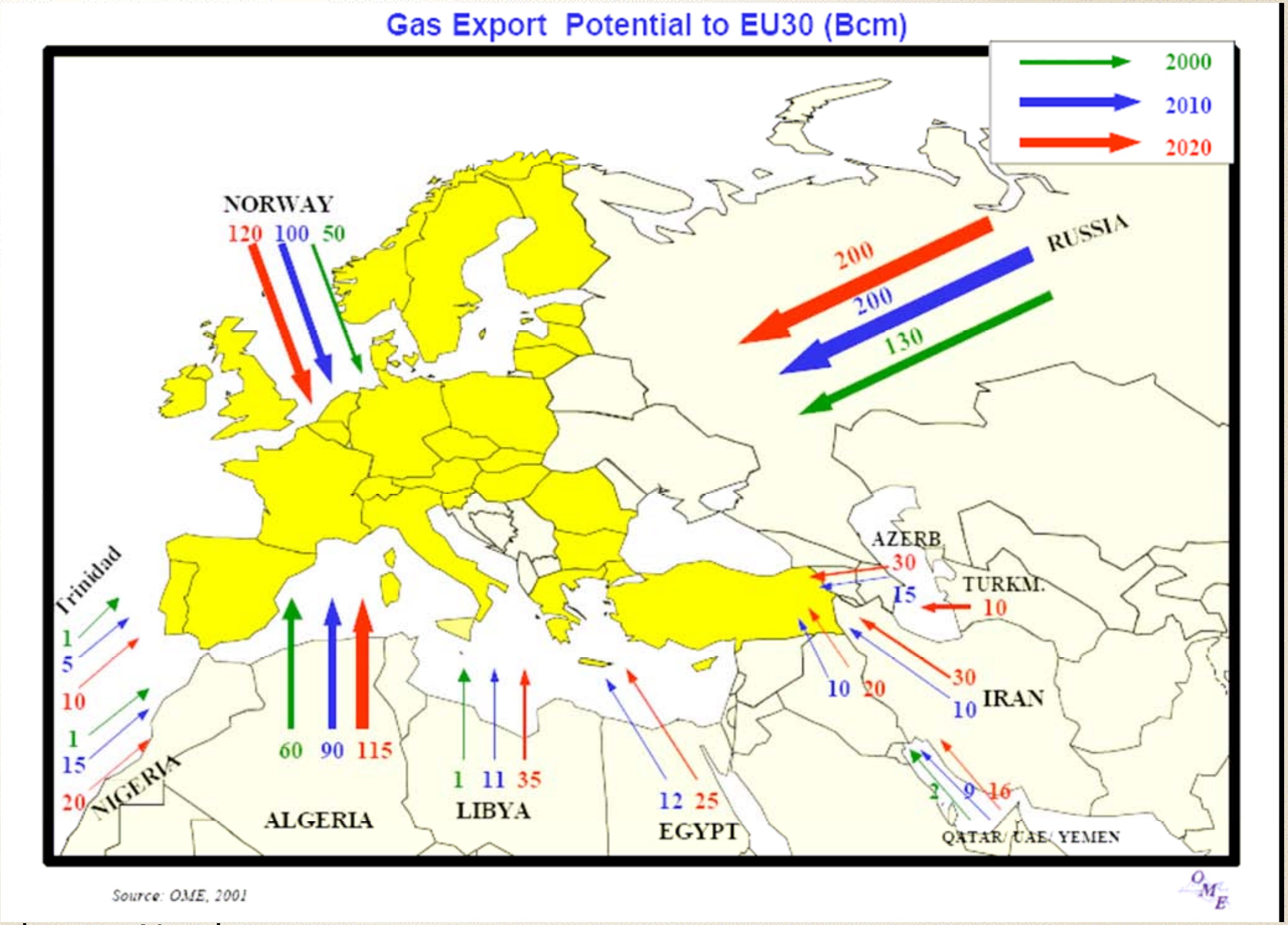
"The Big Picture"

Russian Oil and Natural Gas at a Glance

Oil	2006
Oil reserves	80 billion barrels
Oil reserves, as percentage of world	7 percent
Saudi Arabian reserves	264 billion barrels
US reserves	30 billion barrels
Oil production	10 million barrels per day
Oil production, as percentage of world	12 percent
US oil production	7 million barrels per day
Oil exports	7 million barrels per day
Oil exporter, rank	2
Oil exports, to US	370,000 barrels per day

Natural Gas	2006
Gas reserves	48 trillion cubic meters
Gas reserves, as percentage of world	26 percent
Iranian reserves	28 trillion cubic meters
US reserves	6 trillion cubic meters
Gas production	612 billion cubic meters
Gas production, as percentage of world	21 percent
US gas production	524 billion cubic meters
Gas exports	263 billion cubic meters
Gas exporter, rank	1
Gas exports, to Europe	151 billion cubic meters

Russia's Gas Ambitions 2000-2020



Norwegian Institute of International Affairs

Norsk Utenrikspolitisk Institutt

Russia’s Future Role as Supplier of Gas to Europe

Reference case	2000	2005	2010	2015	2020
Russia	129	130	170	230	297
Russia's share	**53,31**	**47,27**	**46,20**	**46,84**	**47,07**
TOTAL	**242**	**275**	**368**	**491**	**631**
Low scenario	2000	2005	2010	2015	2020
Russia	129	130	156	170	230
Russia's share	**53,31**	**50,39**	**47,13**	**40,19**	**44,15**
TOTAL	**242**	**258**	**331**	**423**	**521**
High scenario	2000	2005	2010	2015	2020
Russia	129	136	170	264	390
Russia's share	**53,31**	**43,73**	**39,53**	**44,07**	**48,15**
TOTAL	**242**	**311**	**430**	**599**	**810**

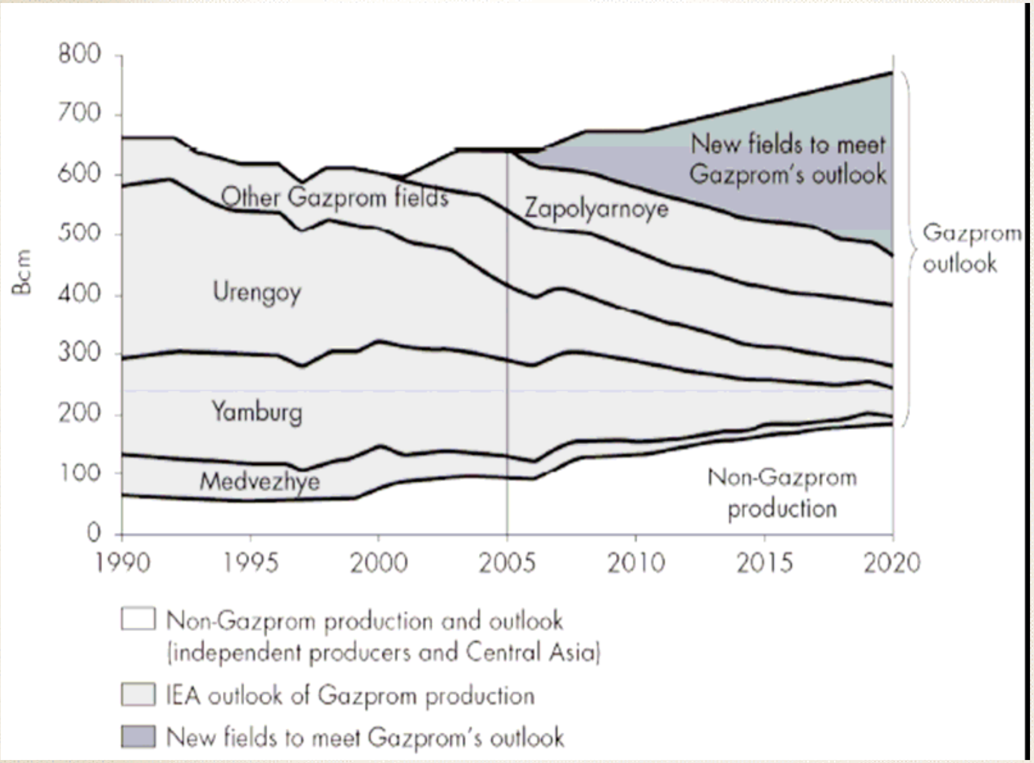
Russian Gas Transport Capacity Today and Tomorrow

Pipeline	Route	**Capacity** in bcm (actual and planned)		
		2005	2010	2015
Brotherhood/Union	Russia-Ukraine-Central Europe	130	130	130
Northern Light	Russia-Belarus-Ukraine-Central Europe	25	25	25
Trans-Balkans	Russia-Balkan Countries	20	20	20
Finland Connector	Russia-Finland	20	20	20
Yamal 1	Russia-Belarus-Poland-Western Europe	28	28	28
Yamal 2	Russia-Belarus-Poland-Western Europe	0	0	0
Blue Stream	Russia-Black Sea-Turkey	16	16	16
NEGP/NS	Russia-Baltic Sea-Germany	0	28	55
		239	**267**	**294**
Export of Russian gas by pipelines to Europe in 2006		**151,5**		
Capacity / export surplus (2006)		**87,5**		

Transit of Russian Gas to Europe
Importance of Transit Avoidance Strategy

Country-exporter	Direct supplies % of volume of exports	Transit through the territory of: % of volume of exports			
		one country	two countries	three countries	four countries
EXISTING EXPORTERS					
Netherlands	76,2	13,8	10,0	-	-
Norway	67,7	7,5	21,4	3,4	-
Algeria	44,9	14,8	9,6	24,3	6,4
Russia	39,5	9,4	11,4	28,1	11,6

Resource Constraint?



- Yuzhno-Russkoye gas field -700 bmc - 25 bcm per year to NS
- NS capacity 55 bcm – where the rest of the gas is to come from?
  - Shtokman?
- Worsening of upstream investment in the gas sector
- The low rate of development of gas
- By 2010 Russia may lack 126 bcm to meet its commitments (Milov, Riley)