

**IFA Production and International Trade Conference
and Regional Conference for Eastern Europe
and Central Asia**

**Feedstock Supply to the Fertilizer
Industry in Russia**

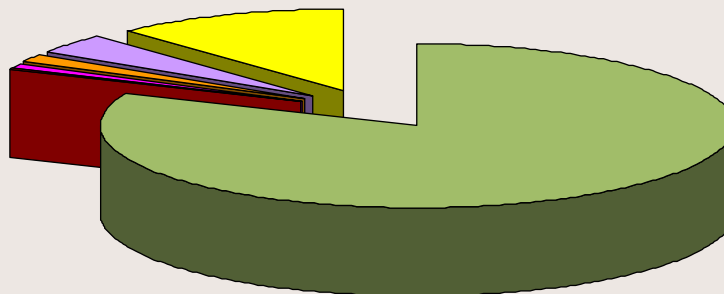
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Moscow, Russia

**St-Petersburg, Russia
22-26 September 2003**

Gas Reserves

- Gas reserves for 01.01.2001 – 46,9 tcm
Gazprom share – 64% or 29,9 tcm
- International Independent Reserves Audit of 84%
Gazprom fields:
 - *19,4 tcm proved and probable reserves*
- Production level of 2000
 - *Proven & probab. Gazprom Reserves => approx. 40 years*
 - *Overall reserves => up to 80 years*

Gas production in Russia by regions, 2001



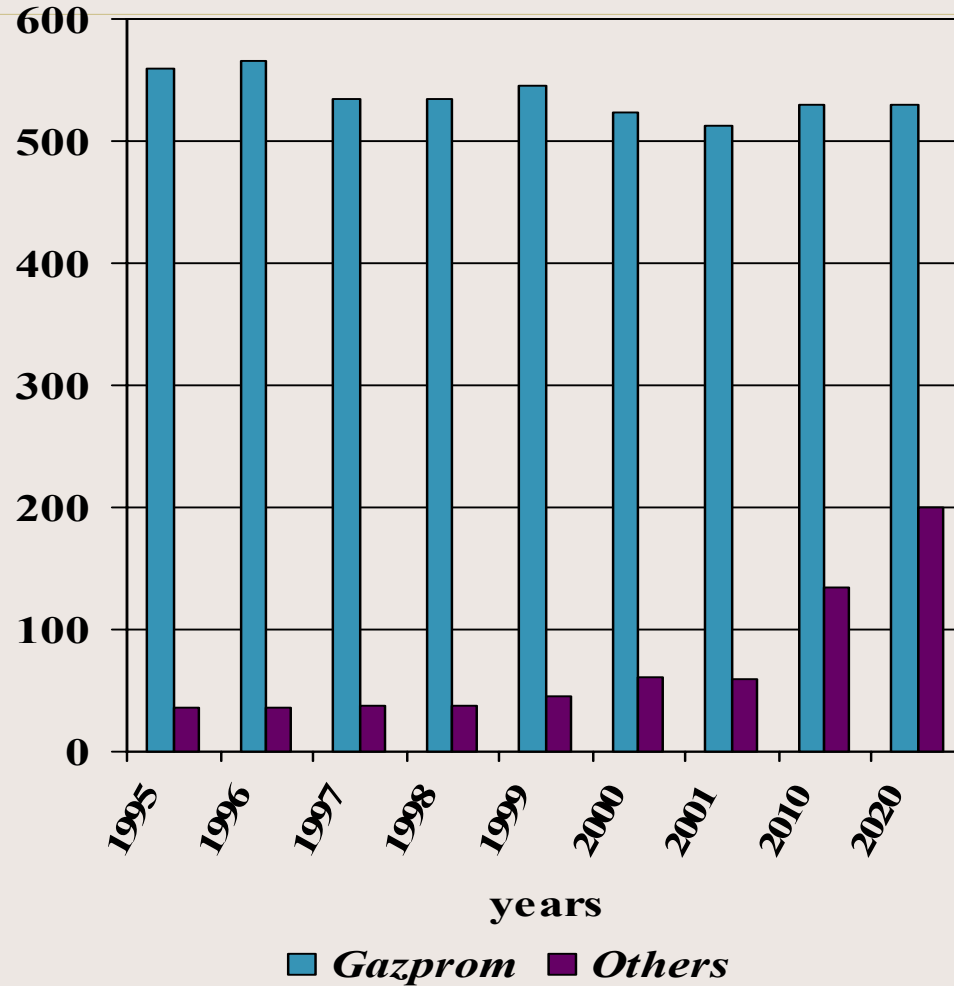
- Tiumen - 81,5%
- Krasnodar & Stavrop. Reg.- 0,3%
- Komi - 0,6%
- Astrakhan reg.- 1,8%
- Orenburg reg.- 3,9%
- Others -11,9%

- Total gas production – 581 bcm

NATURAL GAS PRODUCTION BY RUSSIAN COMPANIES, 1995 – 2001, BCM

	1995	1996	1997	1998	1999	2000	2001
Russian Federation	594,8	601,0	570,5	590,7	590,8	584,2	581,0
Including:							
OAo Gazprom	559,9	564,7	533,8	553,7	545,6	523,2	512,0
- West Siberia (Nadym-Pur-Taz)	519,2	526,9	496,4	515,3	507,1	483,0	473,5
• Urengoy	242,9	242,2	227,2	223,8	209,1	193,3	180,4
• Yamburg	177,8	176,5	169,3	179,6	175,9	168,0	173,0
• Nadym	64,4	65,3	54,0	65,1	72,4	73,6	71,3
• Surgut (Noyabrsk)	34,1	40,3	45,8	46,7	49,7	49,0	48,7
- European part of Russia							
• Orenburg	30,8	28,7	27,0	25,5	24,8	24,1	22,8
Other Companies, including:							
Itera & other independent				2,0	10,6	22,7	29,6
East-Siberian Companies	6,1	6,1	5,7	5,8	6,0	6,0	5,6
Oil Companies	29,0	29,1	29,4	28,9	29,6	32,3	34,7

Gas Production in Russia (bcm)



Independent Producers, their capacities and plans:

- 1. ITERA: production of 2002 – about 30 bcm. Total gas reserves – 1,17 Tcm, Company reports on 2,2 Tcm.
May 2003 - Beregovoye field became operational.
Reserves – 324 Bcm. Planned production – 2,4 Rcm in 2003, 11 Bcm/year since 2005.
- 2. LUKOIL – Agreement with Gazprom regarding future sales. Guaranteed minimal prices at the wellhead – 22,5 USD/th.m³ Total proven gas reserves – 12,4 Tcf
- 3. YUKOS - Total proven gas reserves – 220 bcm (2002)
- 4. North Gas – Operational North Urengoy field with reserves 360 Bcm. Annual production 5 Bcm/year, with planned increase to 9-10 Bcm/year.

RUSSIAN GAS PRODUCTION: Projection 2000 – 2020 (bcm) and shares of the regions in the national production

	2000	2005	2010	2015	2020
Russia, bcm	584	580-600	615-655	640-690	660-700
European regions	7%	6%	12-13%	13-14%	17-18%
- Barents Sea (Shtokman)	-	-	65%	63%	70%
West Siberia	91%	92-93%	80-82%	78-80%	73-75%
- Nadym-Pur-Taz	87%	95-96%	95%	94%	80-84%
- Yamal	-	-	-	-	11-16%
East Siberia	1%	1%	2-3%	3-4%	5%
- Irkutsk (Kovykta)	-	-	60-73%	80-81%	80-81%
Far East	1%	1%	3-4%	3-4%	>4%
- Saha Republic	47%	50%	<50%	25-45%	31-40%
- Sakhalin	53%	50%	>50%	55-75%	60-69%

Gas industry structure: Main operating and perspective gas producing regions & pipelines



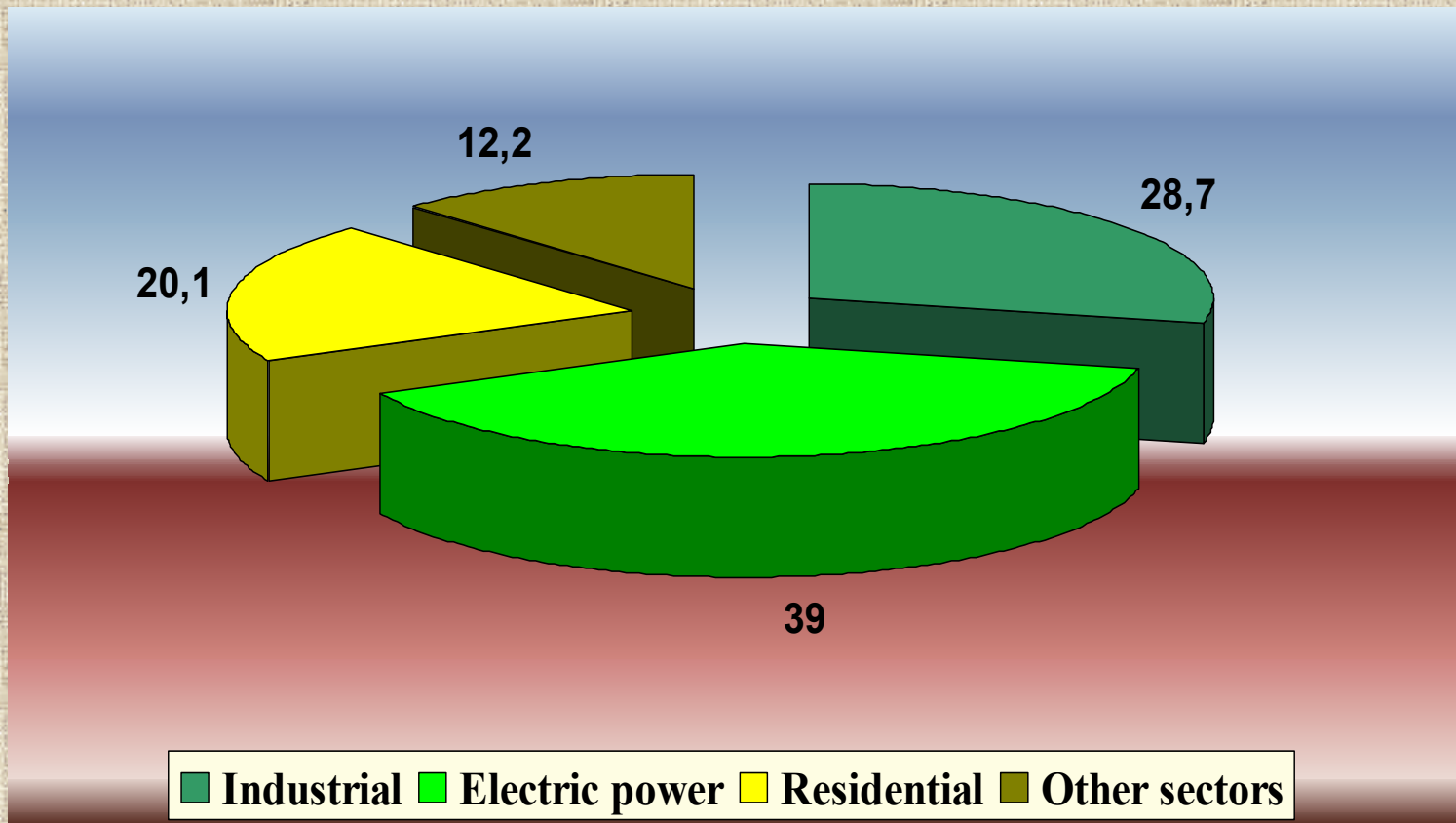
JSC Gazprom and ITERA/Central Asia: Export to CIS and Baltic countries in 2000 (bcm)

	Gazprom	ITERA	Export total
Ukraine	27,8	32,4 (15,0 –Rus) (16,1 – CA)	58,9
Byelorussia	10,8	5,8 (Rus)	16,6
Moldova	1,8	0,6 (0,2 – Rus) (0,4 – CA)	2,4
Georgia		0,7 (CA)	0,7
Armenia		1,7 (CA)	1,7
Azerbaijan		0,3	0,3
Lithuania	2,0	0,6 (Rus)	2,6
Latvia	1,0	0,4 (Rus)	1,4
Estonia	0,6	0,2 (Rus)	0,8
Kazakhstan		0,7	0,7
Total	44,0	42,1	86,1

Export of Russian natural gas to Europe, 1997-2002 years, Bcm

	1997	1998	1999	2000	2001	2002
Former Yugoslavia	3,9	3,7	3,1	3,5	3,7	3,8
Romania	5,1	4,7	3,2	3,2	2,9	3,5
Bulgaria	4,95	3,8	3,2	3,2	3,3	2,8
Hungary	6,54	7,3	7,4	6,5	8,0	9,15
Poland	6,75	6,9	6,1	6,8	7,5	7,1
Czech republic	8,4	8,6	7,8	7,5	7,5	7,4
Slovakia	7,1	7,1	7,5	7,9	7,5	7,7
Central and Eastern Europe sub-total	42,7	42,1	38,3	38,6	40,4	41,45
Greece	0,2	0,9	1,5	1,6	1,5	1,68
Turkey	6,7	6,7	8,9	10,3	11,1	11,8
Finland	3,6	4,2	4,2	4,3	4,6	4,6
Austria	5,6	5,7	5,4	5,1	4,9	5,2
Switzerland	0,4	0,4	0,4	0,4	0,3	0,3
France	10,9	10,9	13,4	12,9	11,1	11,4
Italy	14,2	17,3	19,8	21,8	20,2	19,3
Нидерланды					0,1	1,4
Germany	32,5	32,50	34,9	34,0	32,5	32,3
Western Europe sub-total	74,1	78,6	88,5	90,4	8632	87,98
Europe total	116,84	120,7	126,8	129,0	126,7	129,43

Gas consumption in Russia, 2001 by sector (%)



Total: 360,7 bcm

Trends in Gas Balance in the UGSS area

- Gazprom Production : ~ 530 Bcm/year
- Export outside CIS : ultimately to ~190 (+60)
- Internal market demand : ↑ +50
- Who will fill the gap?
 - Central Asia deliveries (up to 80 Bcm/year? Ukraine inside or outside?)
 - Gazprom itself – potentially up to 590 Bcm/year?
 - Independent producers (incl. major oil companies)

Power Sector Reform in Russia

- Full Unbundling of RAO EES:

- Network Owner
- Power Trading system
- System Operator
- Generating Companies

- Complicating Acquisition & Merger Process

- Complicating Interaction of New Born Entities

- Purpose-Competitive Market for Power

- Timing ~ 2006

- Gas supplies > 60% of Fuel Mix
- Principal Differences between Power and Gas Sectors in Russia

Dilemma: A scheme and track of Power Reform startles Gas Audience

Power Reform success is doubtful in case Gas Market is in current shape.

Gazprom Medium-Term Alternative:

Main Focus on:

- (1) Large scale investment projects (primarily Jamal)
- (2) Central Asia intensive cooperation
- (3) Medium-size production projects, increase of transportation capacity, development of transportation services.

European Context.

- **Top Questions:**
- **2001-2002 - Long-Term Contracts (see Flame-2002)**
- **2003 - Low Gas (and partly Power) Prices in Russia.**
-
- **Current wholesale gas prices (incl. excise and VAT taxes) in average – 27 \$ per thousand of cubic meter.**
- **7 pricing zones throughout Russia.**
- **Prospects: 2006 – about 40\$; 2010 – up to 50\$.**
- **I.e. (in low or medium European gas price scenarios) close to netback price for middle Russia.**
- **Such developments look inevitable because of:**
 - **- increase in gas development and production costs**
 - **- restrains for available transportation infrastructure**
 - **- Central Asia gas imports will give similar or higher price indications**
 - **- establishment of liberated sector in gas market will provide reliable price signals.**

Gazprom Concept

Gas market development stage by stage (1)

- I. Till 2006
 - Staged Regulated Gas prices increase (1,9 times within 4 years in constant \$);
 - Two-segment gas market model: regulated and non-regulated. Expansion of non-regulated segment of the gas market, incl. gas exchange trade (reg. segm. ↓ 25-30%); Market price ↑ 45-50\$
 - Development of methodology for uniform transportation tariffs setting;
 - Simplification of TPA rules to Gazprom transp. system;
 - Long-Term Contracts with main consumers.

Gazprom Concept

Gas market development stage by stage (2)

Till 2008

- Transfer to the market prices (except domestic consumption);
- Access to export for independent producers through unified export channel;
- Excise replacement by production taxes (Government proposal in 2003)
- Regulated price ↑ 36\$; market price ↑ 50-55\$.

Gazprom Concept

Gas market development stage by stage (3)

- By 2020 (2010?)
 - Competitive market of gas producers should be formed, where
 - Consumers will be able to choose among suppliers (no details);
 - Inter fuel competition;
 - State control will cover only pipeline transportation sector.

Ministry of Economy & Trade

Gas market development stage by stage (1-1)

- I. Within 2-3 years (2005-2006), development conditions to establish proper gas market infrastructure and eliminate main disproportions in the gas market, improvements in gas regulation system.
 - The main steps are as:
 - Development and adoption of the amendments and new regulative acts for the gas market;
 - Establishment of gas transportation company (GTC; owner of pipeline assets) and Central Dispatching Unit (CDU) as 100% Gazprom affiliated companies;
 - Expansion of the market share of independent gas producers;
 - Establishment of gas trade exchanges;
 - Declaring of the rules and terms for gas prices liberalization for majority of consumers (except domestic, small commercial and budget organizations- to be in regulated segment);
 - Determination of policy in the development of regulated gas prices and in elimination of cross subsidies.

Ministry of Economy & Trade

Gas market development stage by stage (1-2)

- Development of the methodology of gas transportation tariffs regulation (for gas trunk pipelines) which should be unified for all gas market participants;
- Declaration of the principles and rules for the UGSS services and operations in the interest of all users – inside and outside Gazprom;
- Information transparency on the market operation and gas prices;
- Definition of the terms of operation of independent gas traders at the wholesale market;

Ministry of Economy & Trade

Gas market development stage by stage (2)

2007-2008

- Starting point of the proper gas market functioning, incl.:
 - Gas transportation Company and CDU will come under direct state control;
 - Starting process of de-monopolization of gas sales and gas production (if necessary);
 - Open gas trade market;
 - Modification of taxation (similar to other proposals);
 - Average gas price for industrial consumers will reach
 - 33-35 \$/th.m³ (min)
 - 39-42 \$/th.m³ (max)
- Gas infrastructure development by private investors;
- Development of rules for independent producers, access to export;
- Significant increase of share of independent producers in the gas production.

Ministry of Economy & Trade

Gas market development stage by stage (3)

- Full Scale Gas Market Liberalization and De-monopolization
 - Gas market (unregulated) prices for all consumers categories;
 - Competition in gas production, wholesale and retail gas sales
 - Possible prohibition of merger of gas trade and gas transportation functions at distribution level;
 - If necessary, separation of several independent gas producing companies from JSC “Gazprom” .

Russian Enterprises Union

Gas market development

stage by stage (1)

2003-2006

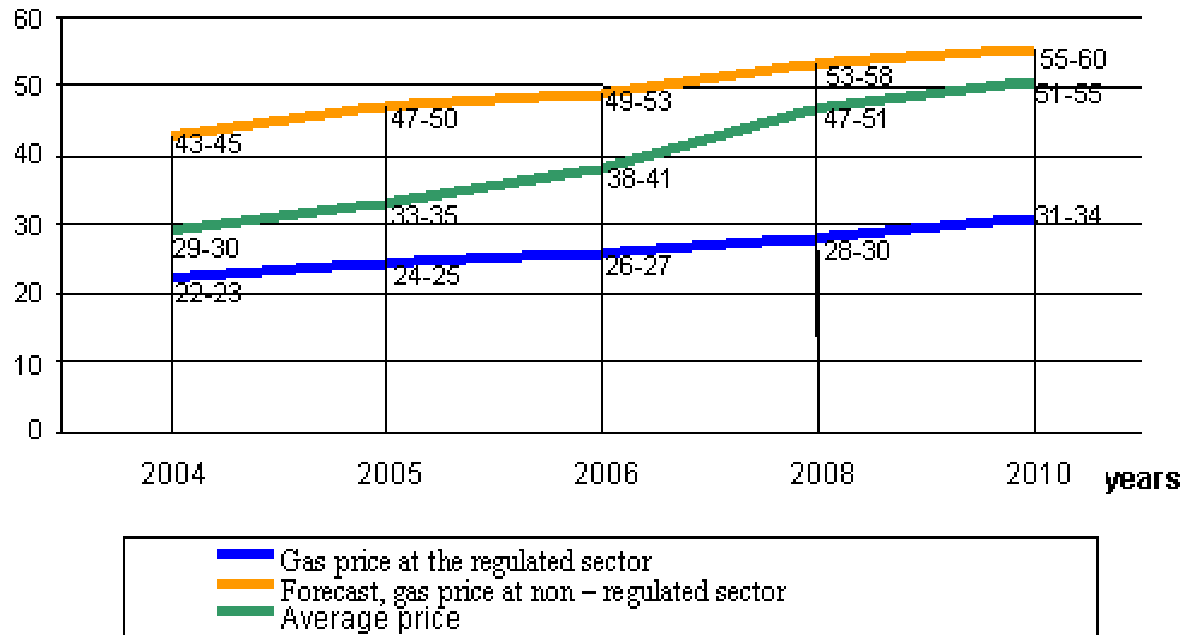
- 1. Creation of gas transportation company “Rostransgas” – 100% Subsidiary of Gazprom;**
- 2. Central Dispatching Unit (CDU) of Gazprom – either transfers to “Rostransgaz” or becomes separate corporate entity;**
- 3. Unified transport tariff determination on the approach “Entry point – Exit point”;**
- 4. Three types of TPA:**
 - Long-term (obligatory for transporter)**
 - Medium term (~ 1 year, conditional on availability of capacities)**
 - Short-term (support for gas trading)**
- 5. Two sectors of market: regulated (oil prices are regulated) & liberalized.**
- 6. “Gas Market Coordinator” – non-commercial organization, representing market participants;**
- 7. Development rules and terms for independent gas producers participation in export; unified export channel – Gazexport.**
- 8. Changes in taxation policy**

Russian Enterprises Union

Gas market development

(based on materials from the Institute on Energy Studies
under Russian Academy of Science)

Gas price, USD/th.m3

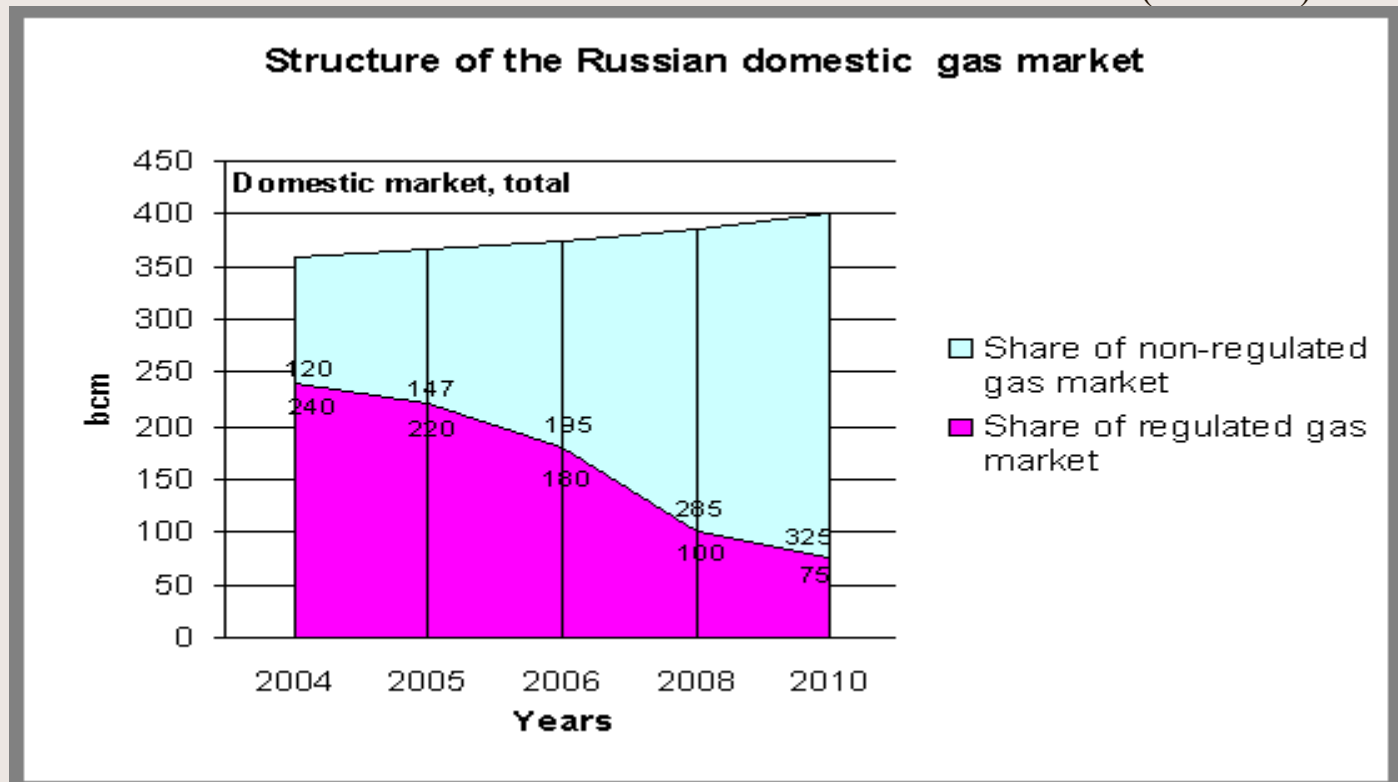


Russian Enterprises Union

Gas market development

(based on materials from the Institute on Energy Studies
under Russian Academy of Science)

(Forecast)



Russian Enterprises Union

Gas market development stage by stage (2)

2. Further steps (depending on status of gas market):

- After gas market becomes competitive - abolishment of the administrative regulation;
- Regulated gas supplies only for very limited certain categories of the consumers or social dotations for these consumers;
- Further industrial structure optimization in case lack of efficiency in market development;
- Correction in export policy taking into account progress in Russian gas market liberalization, domestic market status, European gas market developments.

“Gas Market Coordinator” – non-commercial organization

- Currently is under the process of establishment;
- Main players of the market: gas producers, gas consumers (incl. fertilizers producers) are interested in participation;
- Starting point of activity – October, 2003