



Energy Interdependence between EU and Russia: Security of Supply / Security of Demand

CEPS - Centre for European Policy Studies
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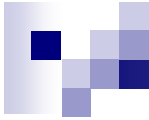
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President Medvedev's Conceptual Approach to the New Legal Framework for Energy Cooperation (April 2009)

The Parties should cooperate in the sphere of energy on
The basis of the following principles:

- Recognition of indivisibility of sustainable global energy security and interdependence of all world energy exchange participants;
- Mutual responsibility of energy consuming and supplying countries, as well as of transit states for global energy security;
- Recognition of security of supply (delivery) and demand (transparent and predictable marketing) as key aspects of global energy security



Principle Issues

- Focus on gas (oil is a liquid market, electricity trade is so far minor)
- Asymmetry between sos and sod
- Security of supply (technical issue, can be managed by Governments):
 - ☐ Access to Resources (resource policy)
 - ☐ Necessary investment into production and transportation / transit
 - ☐ Operational performance along the chain
 - ☐ Balancing supply and demand by short-term market transactions or by long-term contracts
 - ☐ Special issue for gas using fixed, inflexible infrastructure for transport / transit

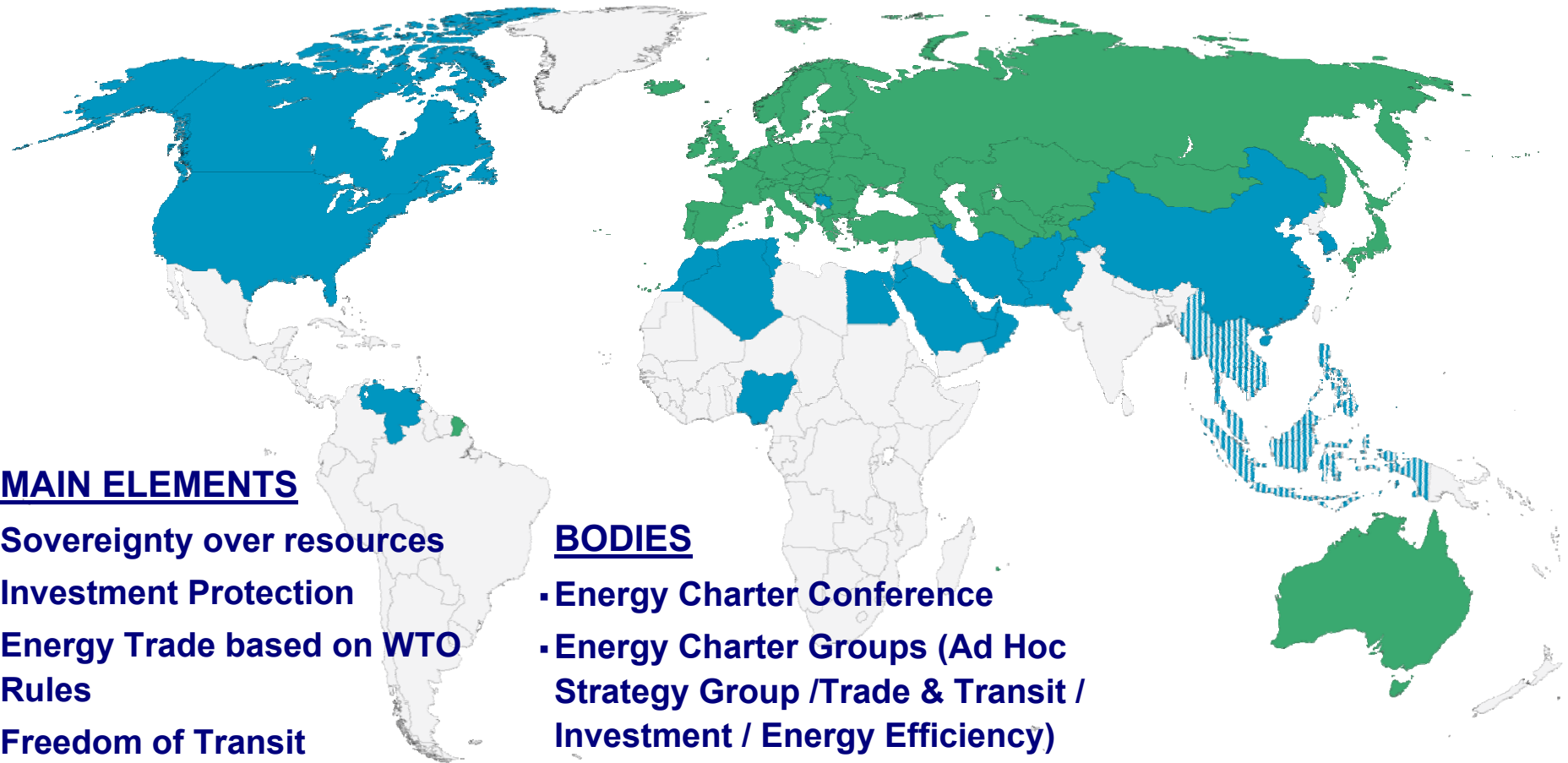
=> need for binding multilateral rules on investment, transit, resources
- Security of demand (market issue, up to markets, but Government influence)
 - ☐ Overall energy demand (economy / GHG)
 - ☐ Role of gas in energy mix
 - ☐ Implications of market design
 - ☐ Access to markets, eventually to fixed infrastructure

=> Need for predictability, non-discrimination for access to markets, no undermining of long-term marketing instruments



The Energy Charter Treaty

1994: Signature 1998: In Force



MAIN ELEMENTS

- Sovereignty over resources
- Investment Protection
- Energy Trade based on WTO Rules
- Freedom of Transit
- Energy Efficiency
- Dispute Settlement

BODIES

- Energy Charter Conference
- Energy Charter Groups (Ad Hoc Strategy Group /Trade & Transit / Investment / Energy Efficiency)
- Energy Charter Secretariat
- Industry Advisory Panel

■ signatory
■ observer



Risks of major gas upstream projects development: The producer's view

Economic stability is a key factor for successful gas industry development

Unavoidable basic risks

- Marketing risks
- Investments risks
- Financial risks

Political risks can be managed



GHG and Power Sector Policy

Defining (Security of) Demand



- GHG policy => overall limit for CO₂ emissions as major GHG => limits for emissions from fossil fuels (as major contribution to GHG emissions).
- CO₂ Emissions from energy sector:
 - Emission from power sector
 - Emission from hydrocarbons (no coal use outside the power sector)
- Emission from power sector
 - largely influenced by Government policy:
 - Nuclear
 - Renewables
 - Coal with / out carbon sequestration vs gas in power generation
- Emission from hydro carbons as a residuum (if GHG policy is implemented)
 - Defined the overall amount of hydro carbons consumed
 - Split between fuel oil and gas given by experience (mobility vs. heating)
 - Share of suppliers determined by LTCs / spot competition
- => derive overall demand for gas and for fuel oil
- Approach not dependent on instruments to implement GHG policy, but rather on political credibility to implement GHG policy
- Resulting demand rather too low (except for effects of economic crisis)



Some Recent Developments on Supply / Demand

- Supply concerns:
 - ☐ investment
 - ☐ Transit
- Demand concerns:
 - ☐ Economic crisis
 - ☐ New gas supply from US, Qatar
 - ☐ Implications of GHG targets
- Long-term Minimum pay contracts



Investment Concerns Russia

LONDON (Reuters) May 22, 2006

Russia will be unable to meet its Western clients' gas needs by the end of the decade unless it invests more and reforms its energy market, the head of the International Energy Agency (IEA) said on Monday.

July 13 2009 (RIA Novosti)

Gazprom has adjusted its investment program for this year to 775 billion rubles (\$23.5 billion), Russian Prime Minister Vladimir Putin said on Monday.

The energy giant's 2009 investment program was earlier projected at 920 billion rubles (\$27.8 billion).



Russian Gas Balance, First Half 2009 (Bcm)

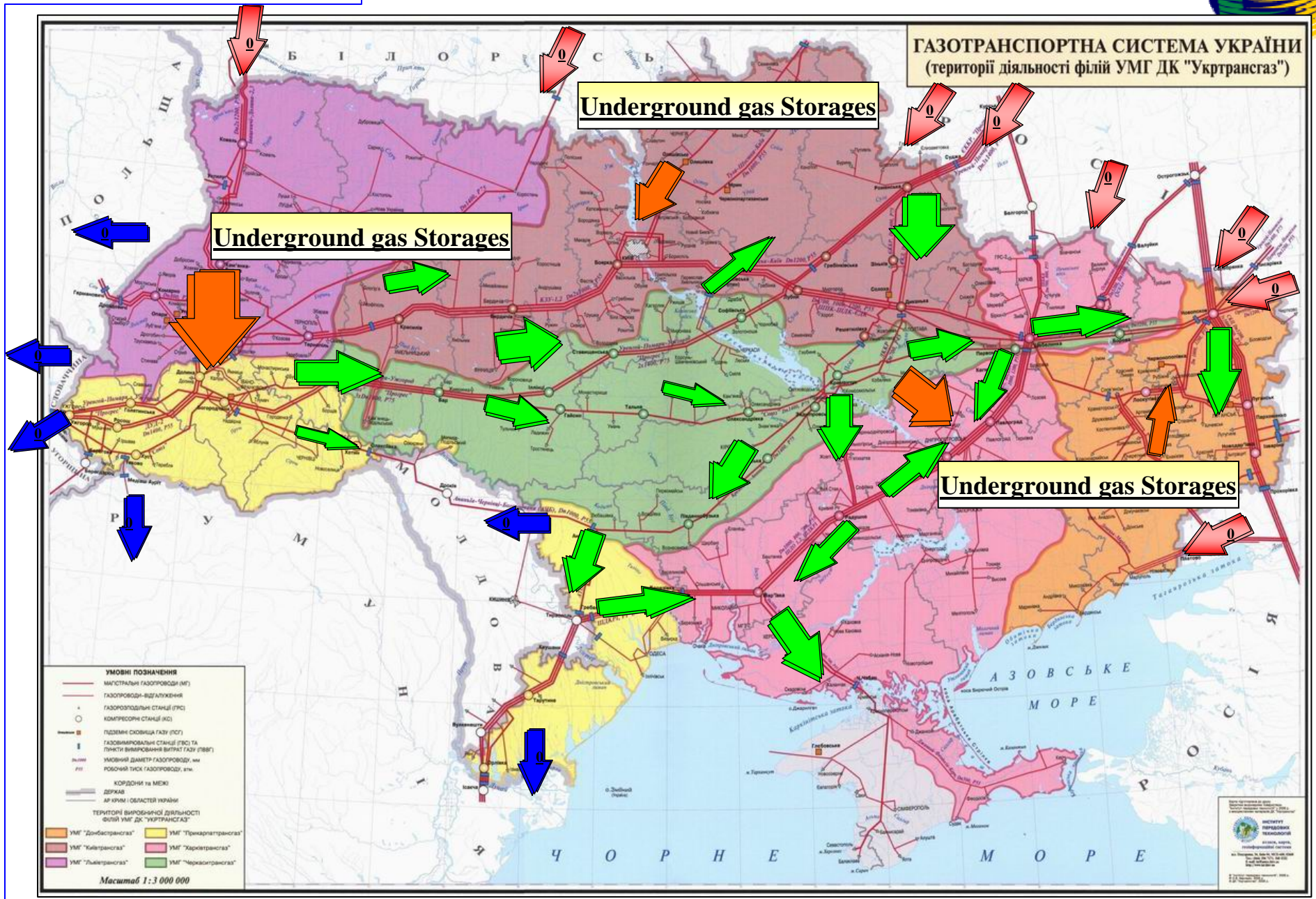
	First Half 2009	First Half 2008	% change
PRODUCTION	216.4	289.2	-25
IMPORTS FROM CENTRAL ASIA	23.7	30.7	-23
EXPORTS TO EUROPE	60.4	89.1	-32
EXPORTS TO CIS	20.8	45.1	-54
TOTAL EXPORTS	81.2	134.2	-39
SALES WITHIN RUSSIA	176.2	187.8	-6

Markets for Russian gas will fall 60-90 Bcm in 2009

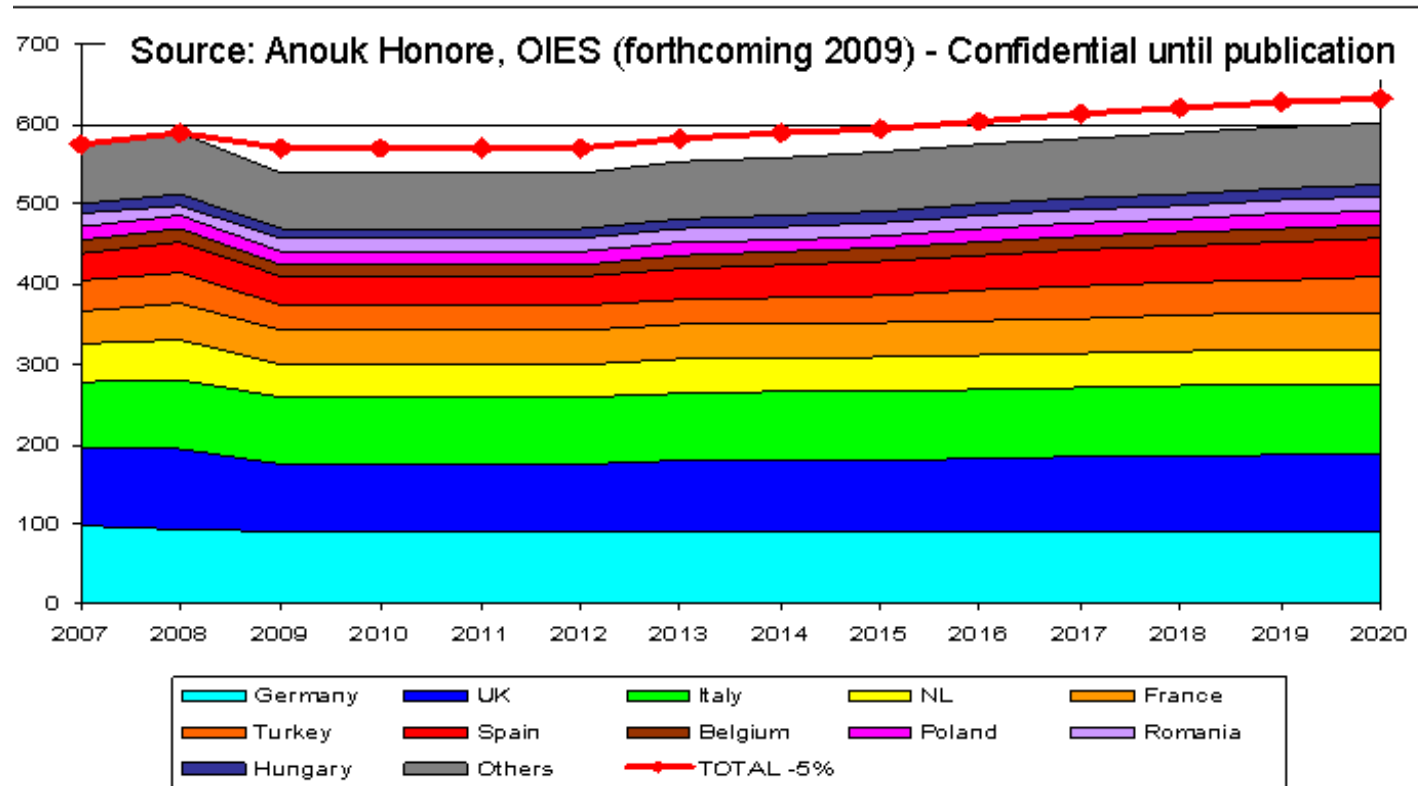
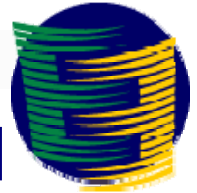


Дочірня компанія
УКРТРАНСГАЗ

Natural gas flow distribution in "Ukrtransgas" GTS 07-20.01.2009



Probable Scenario for European Gas Demand up to 2020, with -10% (and -5%) in 2009 (bcm)

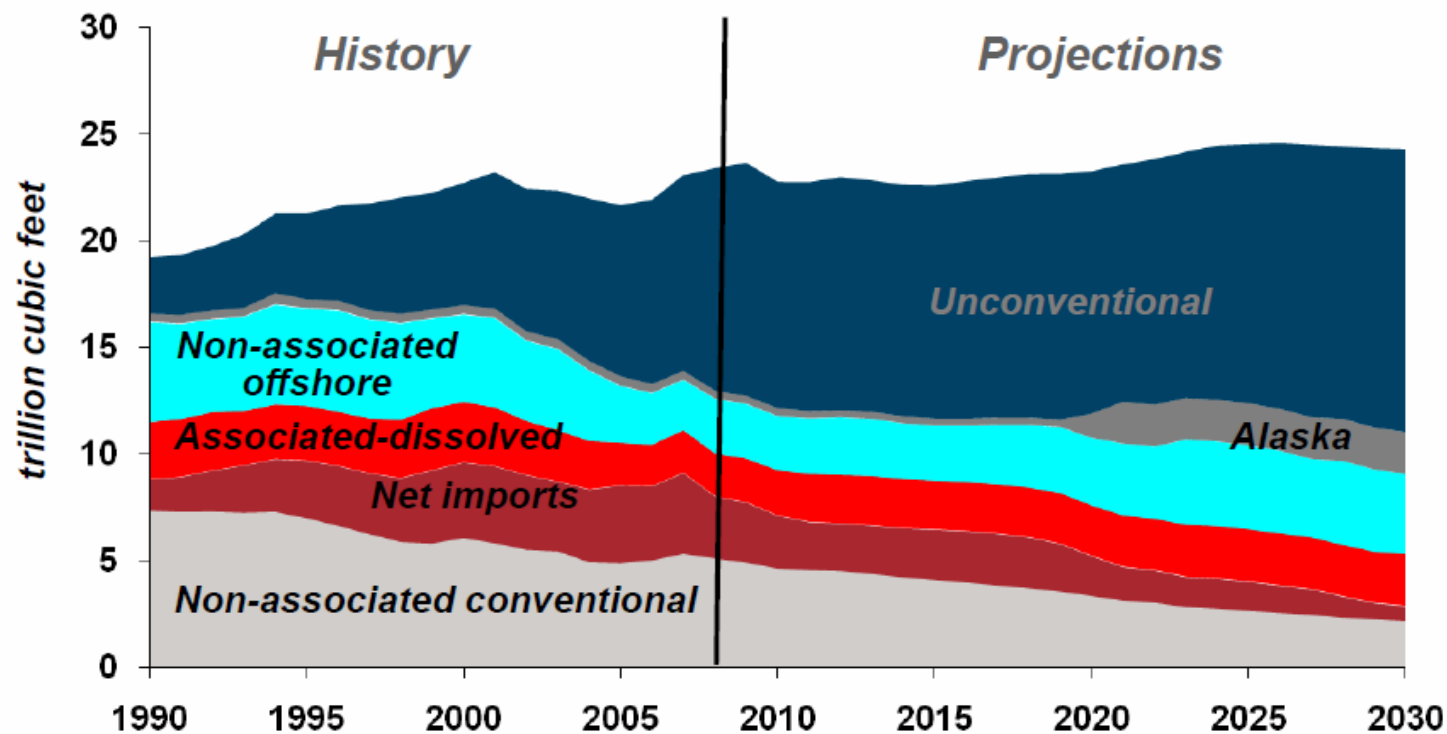


!! Reassessing potential output will require time and analysis. The present estimates are subject to wider than-usual margins of error and should be seen only as a first output of the reassessment !!



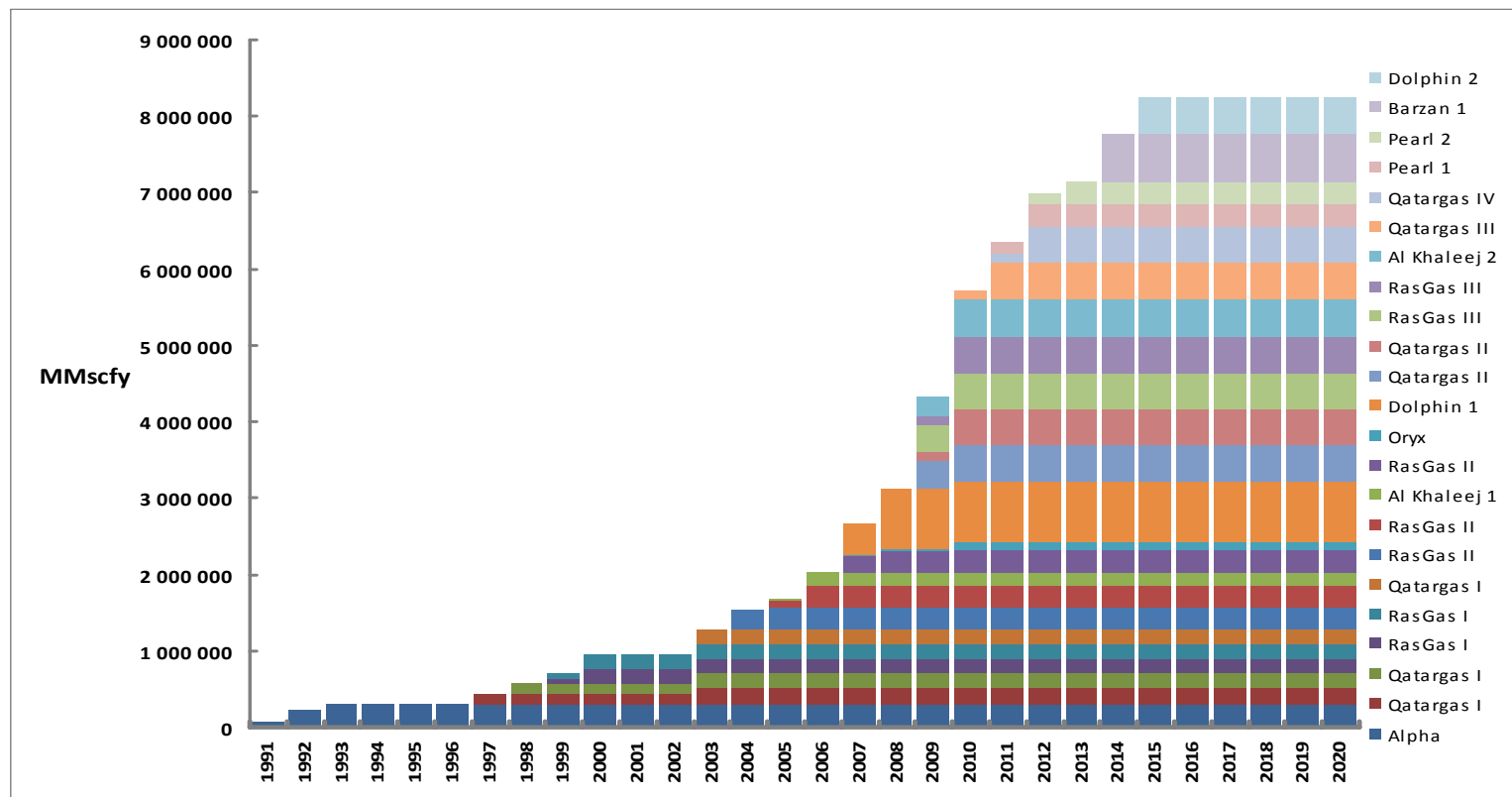
As conventional supplies decline, the gap will be filled by a mix of unconventional gas, Alaskan gas, and LNG

Source: EIA Annual Energy Outlook 2009

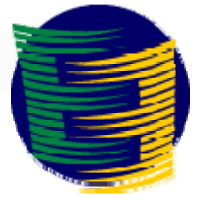




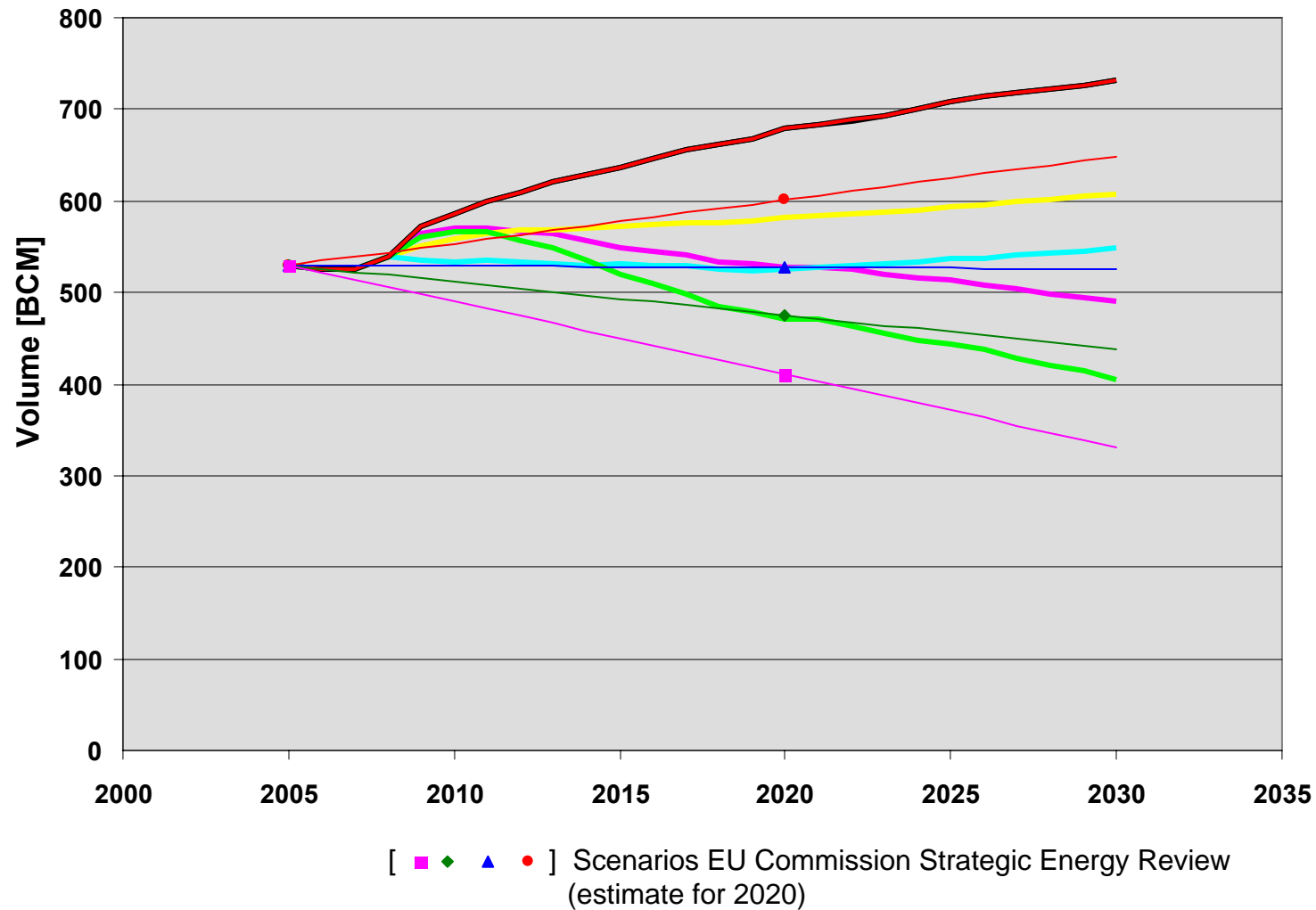
Qatar Production Profile



Source: CERA 2009



Scenarios for EU-27 Gas Demand





Газета «Коммерсантъ»

№ 179/П (4234) от 28.09.2009

In 2009, the largest European consumers of Russian gas, primarily Germany, Italy and Turkey, are not placing orders for the minimum amounts of gas as outlined in their earlier contracts. As a result, Italy's ENI, German E.ON, Turkish Botas and several other companies fall under Gazprom's "take or pay" principle and must pay a fine of up to \$2.8 billion. Turkey has already asked Russia to suspend the rule, and Italy and Germany also do not want to pay, citing Ukraine's exemption. As of now, Gazprom is not planning on making any concessions to these countries.

Turkey plans to hold talks with Russia on easing the gas supply contract conditions, according to Taner Yildiz, Turkey's Energy Minister, as reported by the Bloomberg news agency. Turkey wants to have the "take or pay" provision suspended, under which the buyer pays for scheduled gas deliveries, even if not ordered. The minister explained that the 2009 consumption of gas in the country will decrease by 5.4%. However, Turkey purchased 25% less Russian gas in the first half of this year than it did in January-June 2008. Overall, deliveries amounted to 9.5 billion cubic meters. Apart from Russia, Turkey also receives gas from Iran.

Other major Gazprom customers are faced with a similar problem. In the first half of the year, Western European countries reduced their purchases of Russian gas by 29% - up to 46 billion cubic meters. Germany's purchase reduction rate was 44% (up to 12.23 billion cubic meters), for Italy it was 34% (up to 8.2 billion), and France - 21% (up 5.97 billion). Kommersant's source close to Gazprom's board of directors said that the third quarter had not significantly changed the situation and, at the end of the year, all major European contracting parties will have to pay their fine in accordance with the "take or pay" framework. "On January 18, Italian ENI should be the first to pay its dues," added Kommersant's source. "Turkey's Botas will be second, then Germany's E.ON [the largest consumer], BASF, RWE. Then - French GDF Suez and Total."



Thank you for your attention
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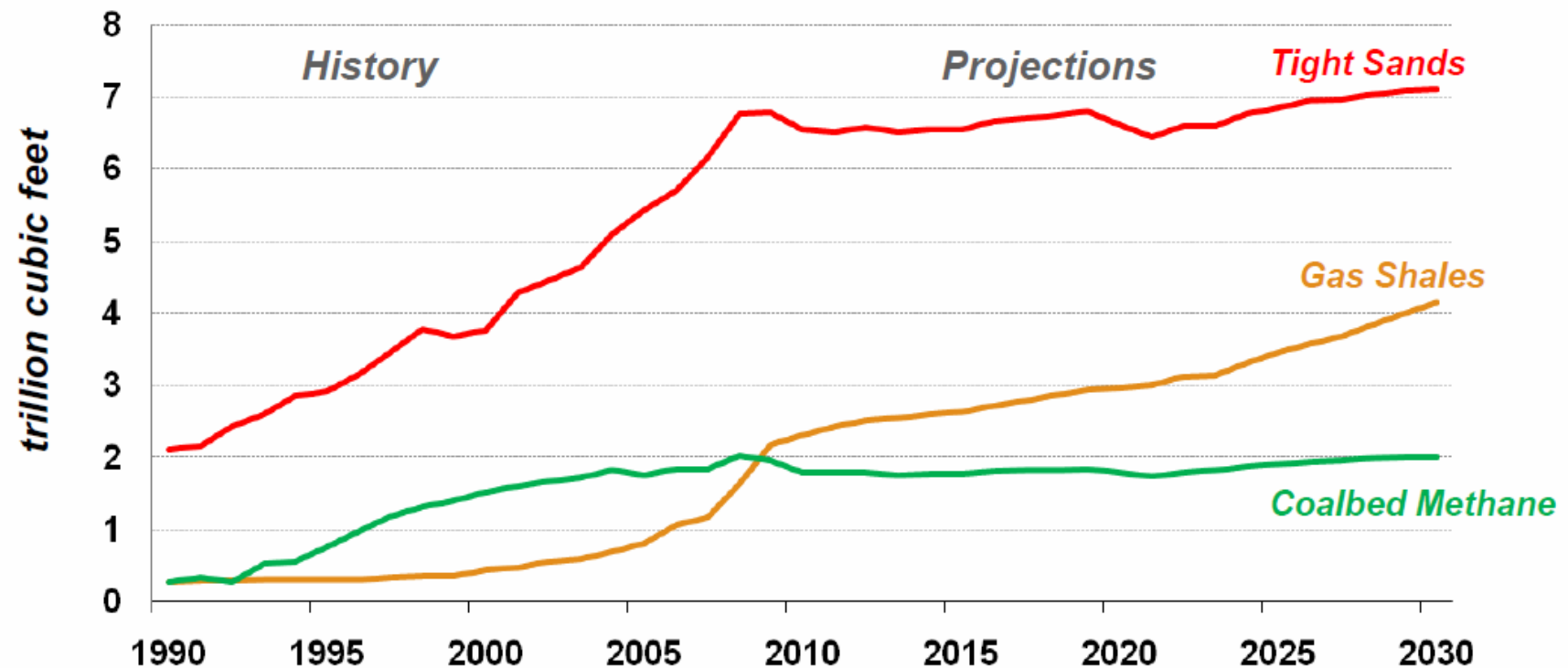
Russian Gas Production Projections 2009-12 (Bcm)

	2008 actual	2009	2010	2011	2012
GAZPROM (Source: Gazprom)	549.7	450- 510	507.5	510.6	532.8
TOTAL RUSSIA (Source: MinEcDev't)	663.6	580	596	610	621
OTHERS (residual)	113.9	70- 130	88.5	99.4	88.2

Gazprom and Ministry projections suggest that gas production will not have regained 2008 levels by 2012



Growth in U.S. unconventional natural gas production between 2007 and 2030 led by gas shales





LNG imports increase moderately as Canadian imports decrease and exports to Mexico increase

