The role of gas in the European energy balance and Russian gas export strategy

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While per capita energy consumption in OECD countries continuously declines, non-OECD countries are the main drivers of world energy consumption growth (1.4 times from 2010 to 2040). The share of carbon-based fuels decreases by 5% to 76%.

Share of coal in absolute volumes of the world energy consumption growth will significantly decrease. Up to 2040 natural gas will be the fastest growing fuel.

Source: ERI RAS, IEA World Energy Statistics 2016
Level of world gas demand in 2040 will also be mostly defined by non-OECD consumption growth. The demand will be met through increase of gas production in all regions, except for Europe.
Energy resources consumption in Europe has been decreasing since 2005 as well as in most developed countries.

European energy consumption by fuel in 1990-2040

Source: ERI RAS, IEA World Energy Statistics 2016
Possibilities to substantially increase gas consumption in the power sector in long run are quite limited.

European electricity production by fuel in 1990-2040

Source: ERI RAS, IEA World Energy Statistics 2016
European gas market is still locked in the TOP contracts. There is little room for new gas supplies in the next 5 years.

European energy consumption by fuel in 1990-2040

Source: ERI RAS, IEA World Energy Statistics 2016
There is still more LNG to come onstream in the next 5 years. Its timing, gas demand dynamics and interfuel competition with coal will drive LNG prices.

New global LNG liquefaction capacity that past FID

Source: Timera Energy
The number of suppliers to the European market will grow, but most of the new LNG producers will be in the rearward part of the supply curve.

Cost ranges for gas supply to Western Europe in 2040

Source: ERI RAS, Nexant WGM
Pipeline gas supplies are and will be the basis for the European gas imports, however LNG imports will grow and there are excess regasification capacities.

Pipeline gas and LNG imports to Europe

Source: ERI RAS, IEA World Energy Statistics 2016
Russian gas export strategy is developed taking into account regional and global dynamics

- 3rd Energy Package
- EU diversification policy
- EU “Energy Union”
- EU and US pressure on the South Stream
- Falling EU gas demand
- EU anti-trust investigation
- US shale gas revolution
- LNG oversupply
- Falling oil-indexed and spot prices
- Financial sanctions and capital unavailability
- Ukrainian crises and transit risks

Russian gas export strategy
Russian gas pricing was adapted to gas market transformations

Natural gas prices in Europe Jan 2010-Mar 2017

Source: ERI RAS, Powernext, IMF, EIA
Gazprom exports to Europe reached a record level of 182 bcm in 2016

Source: Gazprom
Gazprom has started to more actively trade gas. One of the new forms of gas exports is an auction

Gazprom traded gas volume

Source: J. Henderson Flame conference, May 2017 (based on Gazprom figures)
Europe plays balancing role in the LNG market

Source: Cheniere interpretation of IHS Waterborne data (Apr 2016), delivered volumes, Cheniere research, trade outlook (2017)
Russian pipeline gas in Europe plays a balancing role in the natural gas market

The Impact of Lower Gas and Oil Prices on Global Gas and LNG Markets
Pipeline gas exports from Russia to the West depends primarily on European gas demand. Almost all the growth of Russian gas exports will be to Asia.

Gas exports from Russia by scenario and destination

Source: ERI RAS
Contacts

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