

Gaz : une décennie cruciale pour l'industrie russe¹

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En pleine croissance depuis le début du XX^e siècle, l'industrie russe du gaz se trouve confrontée désormais à de nouveaux défis. La hausse de la production de Gazprom et la concurrence accrue des sociétés indépendantes russes combinées à une stagnation de la consommation intérieure et à la réduction des exportations se traduisent par une situation de surproduction. Dans le même temps, Moscou doit faire face aux sanctions décrétées par l'Occident à la suite de l'intervention militaire russe en Ukraine et à la dépression des prix du gaz et du pétrole sur le marché mondial. Le contrat géant signé récemment avec la Chine ne devrait pas avoir un impact significatif avant 2024, compte tenu des délais de concrétisation du gazoduc devant acheminer le gaz russe en Chine. La décennie à venir s'annonce donc cruciale pour l'industrie gazière russe. Le rôle de l'État devrait demeurer capital, ne serait-ce que par le biais de la politique des prix.²

After a period of extensive growth in the 2000s, the Russian gas industry is now facing numerous challenges. Mounting competition by independent producers and the development of new production by Gazprom, combined with stagnating domestic demand and weakening export markets, have created a situation of overproduction, made worse by western sanctions and low oil and gas prices. Expansion to the East thanks to the recent China deal is not expected to provide much relief before 2024. The coming decade will be critical for the industry and its outcome will largely depend on the government's pricing and institutional policies but the role of the state should remain essential.

The role of the Russian gas industry domestically and internationally, economically and politically, cannot be overestimated. Internationally Russia provides for nearly one quarter of the global cross-border gas trade. It is a dominant supplier both for the European and for the CIS gas markets, and has a huge potential to influence these markets. Domestically gas is not only the backbone of the Russian energy sector, but also one of the most powerful policy tools. While the oil sector is the revenue provider for the Russian budget, the gas sector has a much broader political agenda,

including social issues, influence over the regions, low energy prices for the domestic industries, providing financing of the “projects of state importance” and of the powerful vested interest groups. This paper analyses historical evolution, current state and potential future development of the Russian gas market.

After a period of extensive growth and real “Golden Age of Gas” in the 2000s, currently the Russian gas industry is facing numerous challenges. Fundamental shift in all major components of the country's gas balance creates huge uncertainty, aggravated by the sanctions and ongoing geopolitical confrontation. The major components of this “perfect storm” are:

- **Overproduction.** Traditionally Russian gas industry was dominated by Gazprom, but

1. Synthèse de l'étude publiée par Cedigaz en avril 2015, “Russian Gas Market: Entering New Era” by Tatiana Mitrova and Gergely Molnar.

2. Le résumé a été rédigé sous la responsabilité de la *Revue de l'Énergie*.

independent gas producers (IGPs) are becoming more and more important – they are providing already for more than 30% of Russian gas production and nearly half of the domestic gas market supplies. Fast growth of IGPs production together with the start of Bovanenkovo by Gazprom resulted in gas oversupply on the domestic market.

- **Stagnating domestic demand.** Slower economic performance resulted in domestic gas demand stagnation in all sectors, with the main consumers – power sector and industry – being strongly affected by the crises and higher prices.
- **Stagnant exports.** Export is no longer an alternative to domestic demand:
 - stagnant markets of Europe and the CIS are not ready to absorb any significant extra amounts of the Russian gas at the prices linked to oil products prices. Gazprom has not restored its pre-crisis export volumes (162 bcm in 2006 vs. 126 bcm in 2014), while Ukrainian conflict dramatically reduced CIS sales volumes and created unfavorable environment for Russian gas in Europe.
 - In order to lessen dependence on the European gas market, Russia managed finally to sign the gas deal with China, but “Power of Siberia” pipeline construction will take 5 years and another 5 years are necessary to bring the pipeline to its full capacity of 38 bcma, which means that at least until 2024 Eastern gas exports will not allow to replace reduction of the European supplies.
- **Frozen domestic gas prices and non-payments.** In 2006 the decision was made in favor of outpacing growth of the domestic gas prices to effect a phased transition to the European net-back levels. But in the fall of 2013 Russian government decided to freeze domestic gas prices, just indexing them with the rate of inflation, in order to assure social stability and survival of the national industry. It means that Russia, basically, remains in the framework of low state-regulated domestic gas prices. Moreover, poor economic situation is leading to increasing non-payments, while rouble depreciation in December 2014 has led to two-fold decline of the domestic prices in the dollar terms, further reducing profitability and attractiveness of the domestic market.
- **Increasing domestic competition.** Russian gas industry is demonstrating increasing trends towards regional monopolization and aggressive price wars between gas producing companies. IGPs production is booming against stagnation at Gazprom, there is increasing output by all

producers of more profitable wet gas (instead of traditional dry gas). Gazprom has to sell gas at the regulated FTS price while IGPs have an opportunity to provide price discounts. As a result Gazprom has to constrain its own supplies, while independents actively expanded into end users market. Despite IGPs rise, the regulatory framework is still designed predominantly for Gazprom, and there is a huge legal “grey zone”. Recently, discussions on market liberalization (including pipeline export) started, mainly driven by Rosneft and Novatek. It is quite clear that the current state of play is not sustainable in the long term, as conflicts and imbalances between market participants are multiplying.

- **Sanctions.** Geopolitical confrontation with the West and financial sanctions, introduced in 2014, seriously constraint investment ability of the Russian gas industry and threatens some export-oriented projects.
- **Low oil and gas prices.** The current low oil price environment automatically results in lower gas export prices in all Russian external markets. Coupled with the sanctions, it is targeting the capital and technology access of the Russian gas sector are more than likely to postpone the implementation of several major energy projects in Russia.

Strong transformations of the Russian gas balance, which started in 2008, will see further development in the future. All components – domestic demand, supply, exports and imports – will undergo significant transformations.

Russian gas resources and reserves are vast; however, supply challenges are determined by reduction of highly productive fields. Currently 95% of Russian gas is produced in the Western part of the country, but future production growth will be mainly provided by Yamal (up to 145 bcm by 2030) and by the new developments in the Eastern Siberia and Yakutia (up to 70 bcma) and in the Far East (up to 50 bcm).

As Russia has no gas resource constraints, its future gas production will depend on the availability of markets. Moderate assumptions on gas demand growth result into quite low gas production projection, assuming increase from 650 bcm in 2010 up to 800 bcm in 2030 with some slowdown in 2015-2020.

Major uncertainty is related to Gazprom’s future gas production volumes: Gazprom controls the majority of the large fields, able to provide for significant production growth, but the speed of their development is limited now by low gas demand and increasing competition with IGPs, which have

very ambitious plans of gas production expansion. Thus, Rosneft is guiding 100 bcm of output by 2020, Novatek plans to double gas production by 2020, increasing it up to 112 bcma. Domestic market oversupply is also aggravated by the introduction of the obligatory utilization of the associated petroleum gas (APG) and its priority pipeline access. So far, Gazprom was absorbing all production declines, and the main question is, whether it will have to follow the same strategy in the future.

In accordance with production plans, Russia's gas transportation network – UGSS – will be further developed by connection of the new fields to the existing system as well as gradual expansion to the East of Russia. The “Turkish Stream” and “Power of Siberia” are priority export pipeline projects.

Currently there are 7 major LNG export projects under discussion, three of them – by independents – but high costs, geopolitical situation and the imposed financial sanctions (as well as possibility of additional financial and technological sanctions against Russia) could theoretically lead to significant delays in the projects implementation. No significant increase of the Russian LNG exports should be expected before 2020 in any scenario. In the longer term there is more reason to expect a considerable yield of Russian LNG, but its success will strongly depend on the ability of Russian market players to build up relations with the different groups of foreign partners.

Domestic consumption of natural gas, which demonstrated steady growth outpacing that of GDP before the crisis, had almost ceased to grow in the recent years ridden by ramification of the crisis and price growth. There are several differently directed factors, shaping Russian domestic gas consumption: weak economy slows it down, while frozen gas prices and more modest, but still operational gasification programmes support growth of the consumption. The spread of new more energy efficient technologies will slow down in the next few years, sustaining gas demand. In contrast with the optimistic projections of the Russian Ministry of Energy and Gazprom, we estimate that the “gas revolution” of the Russian transport will not take place at least until 2020. In a paradoxical way, the economic recession will sustain and slightly increase the levels of domestic gas consumption up to 540 bcm by 2030 and its share in the fuel mix will even rise. But this demand growth will insufficient to absorb all planned gas production by Gazprom and IGPs, so oversupply will remain, leading to increased competition.

Though European market will remain the major destination of Russian gas for the foreseeable future, it is regarded now as less attractive due to

the regulatory and political constraints. In the medium-term, Russian exports will stay under pressure, though tight gas market in Europe might allow Gazprom to restore its position for several years (until new massive LNG supplies come). In the long-term, given the existing portfolio of long-term contracts, Russia will remain a major natural gas supplier to the EU. Nevertheless, any significant increase in Russian gas exports to Europe is unlikely.

For both economic and political reasons Asia is becoming the main focus of the Russian gas export strategy. But the role of the Asia-Pacific market in the medium term will remain low until new pipeline supplies to China start at full scale. Russia is regarding multiple options for gas exports via LNG and pipelines; by 2025 total Eastern exports could reach 55-85 bcma, depending on success of Altai pipeline negotiations and success in cooperation with the foreign partners in the joint LNG projects.

Geopolitical tensions and desire to replace Russian gas will limit Russian exports to CIS to 45-50 bcma in the long term. Due to the domestic gas oversupply, imports from Central Asia will be limited at 17-20 bcma.

All in all, Russian gas export volume estimations for 2030 are now reviewed significantly downward (from 400 bcma to 275 bcma), but they will still remain the highest in the world.

Summing up, today Russian gas industry has found itself in an unexpectedly difficult situation with virtually all of its external and internal conditions radically changed, not for the better, and its former problems grown more acute and in urgent need to be addressed. The coming decade will be critical for the industry's development, and its prospects will largely depend on the government's pricing and institutional policies.

Currently it seems that the choice between market-oriented industry development with a purely economic rationale, or maintaining “strategic” considerations as the main priority, achieved through state guidance is made in favour of the second option, especially in the situation of increasing feeling of “Russia - fortress surrounded by the enemies” and strong movement towards administrative “mobilization economy”. One remarkable characteristic of the Russian gas industry is its resistance to any deep, structural reform – despite of the profound changes occurred both on the domestic and foreign gas markets in the recent years and numerous tensions between the major stakeholders. Most likely further development of the Russian gas market institutional framework will go evolutionary through gradual changes and legal fixation of the former “grey zones” with no market liberalization and with the remaining high role of the State. ■