# RUSSIA AND ENERGY SECURITY IN THE SOUTH CAUCASUS by Konstantin Golub

#### **1. WHAT IS THE BIGGEST THREAT TO RUSSIA'S ENERGY SECURITY?**

Russian trade balance is highly dependent on Urals oil prices; hydrocarbon exports still dominate in Russian total exports. Russia is one of the leaders of the world energy trade and exports almost half of the primary energy produced, carrying a great investment in the energy sector. Fuel export provides more than 70% of export earnings and 18-19% of GDP<sup>1</sup>. During the last few years, the contribution of the energy sector to the federal budget revenues increased up to 52%<sup>2</sup>.

For Russia, as for many other energy-exporting countries, energy security is mainly regarded from the security of demand and security of transit points of view. While oil provides the bulk of export revenues, gas plays a key role in establishing Russia's credibility in the global energy economy and is an important tool in a number of significant foreign policy initiatives. Traditionally, most of the gas exports (66% in 2014) have been directed to Europe, where Russia controls 30% of the gas market. It is also a dominant supplier for the FSU gas markets, and can easily influence these markets. Hence, natural gas exports are one of the major tools of Russia's integration into global trade and play an especially important role in Russia's economic and political relationship with the EU and with the Western CIS countries (Belarus, Moldova and Ukraine). The Russian gas transportation system also plays an important role in ensuring the supply of Central Asian gas to Europe.

At the same time, due to the extremely high share of the hydrocarbon exports in budget revenues, Russia itself is highly dependent on the external markets conjuncture (first of all – on the prices and import volumes in Europe, Russia's primary market). Even though only one third of Russian gas is exported, export revenues provide the bulk of the revenues of the Russian gas industry, i.e. more than 60% in 2013. The main

<sup>&</sup>lt;sup>1</sup> The data of the Ministry of Energy of the Russian Federation / <u>http://www.minenergo.gov.ru/activity/statistic/</u>

<sup>&</sup>lt;sup>2</sup> The data of the Ministry of Finance of the Russian Federation / <u>http://minfin.ru/ru/perfomance/budget/macroeconomics/</u>

problem is that, if there is a deterioration of the situation on global energy markets and geopolitical conditions in the future, the Russian energy sector will not be able to play its former role of the dominant donor of the Russian economy. Losing this driver of the economy is the main challenge for the country. Despite the call for diversification and modernization, its economic growth remains resource-driven.

The global energy markets will undergo deep transformation in the nearest future, which will significantly influence the development of the Russian energy sector, as well as the volumes and the structure of the external demand. Developed countries aim for a significant increase in energy efficiency. This, along with slowing economic growth and a stabilizing population, will cause stagnation, or a decrease in demand, from the traditional Russian markets, especially from the European Union. The efforts of most countries to diversify their energy supply, to develop non-carbon energy sources (primarily – renewable energy) and the use of local, (including nonconventional) fuels, slow the growth of hydrocarbon imports and narrow market niches for Russia.

Another problematic aspect of Russian energy exports is about new fundamental geopolitical risks which are generating threats to national security, including, in the worst case scenario, the embargo on the Russian hydrocarbons import. While security of supply is increasing for the EU, for Russia, the security of demand is declining.

A series of energy crises in the relations between the EU, Russia and the transit countries in 2006, 2007, 2009 and 2014 have significantly contributed to the politicization and, indeed, the securitization of the energy problematic. Although Russia might have been perceived as a relatively stable supplier of energy resources to the EU at the turn of the century, today, in some EU quarters, the discussions about the need of diversification are centred on the allegedly too strong dependence of the EU on Russia<sup>3</sup>. The Crimean crisis of March 2014 accelerated a mutual avoidance between Russia and Europe in their energy interdependence. In particular, European states declared their wish to decrease Russia's share of natural gas imports. At the same time,

<sup>&</sup>lt;sup>3</sup> EU and Russian discourse on energy relations. Petr Kratochvil, Lukas Tichy // Energy Policy 56 (2013) 391–406

a number of voices emerged in Russia itself about a necessary diversification to Asia. This trend of mutual avoidance means a culmination of mutual political distrust, which certainly has a long-term effect on the markets.<sup>4</sup>

In this context, the primary current goal of Russian's actors is to support federal budget and energy sector investments through export revenues. This requires maintaining the current Russian position in the European energy market. The Asia-Pacific countries will remain a growing market for oil and natural gas, opening up new possibilities for the Russian energy sector, but the Asian export vector requires large investments in the development of appropriate energy transport infrastructures.

The energy sector faces a complex set of internal problems and external extraordinary challenges, in terms of availability, affordability, technology development, sustainability, and regulation:

1. Export revenues expectations are declining :

• Stagnant gas demand, increasing tensions on the western markets for Gazprom.

• Weak prospects in Asia, where Russian presence is very limited for the next 5-7 years.

• Increasing competition with the new gas suppliers (shale from the U.S., Iran, Australia, East Africa, etc.).

• Oil and gas price's declining trend until 2022-2025.

- 2. All the new threats related to the financial and technological sanctions imposed on Russia.
- 3. Stagnation and the threat of recession of the Russian economy with almost termination of the domestic energy demand growth, and reduced investment activity in the energy sector. New measures to freeze energy prices also reduce investments in energy industries and, as a consequence, their growth dynamics.
- 4. Sanctions imposed on Russia's energy sector threaten to postpone several major projects in the energy sector, as well as to defer updating its infrastructure, production assets and technologies.

<sup>&</sup>lt;sup>4</sup> Russia's gas export reorientation from West to East: economic and political considerations. Andrei V. Belyi // Journal of World Energy Law and Business, 2015, Vol. 8, No. 1

- 5. The depletion of existing deposits, as well as the reduction of the size and quality of new discoveries, require the development of even more complex and remote provinces. This is constrained by the lack of technology due to weak incentives for innovation and lack of competition. The challenging climate conditions as well as the remoteness of new areas of gas production from the centres of consumption increase the cost of Russian gas supply to the domestic and foreign markets.
- 6. Maintaining high stress on the environment due to the low use of renewable energy and "green" technologies.
- 7. Slowdown in demand for Russian gas in Ukraine and in Europe and the uncertainty with the pipeline gas transit to the European market.

## 2. WHAT PLACE DOES THE SOUTH CAUCASUS OCCUPY IN RUSSIA'S ENERGY SECURITY?

The current Russian Energy strategy until 2030<sup>5</sup> (RES-2030) states that energy markets in Europe and the CIS countries will remain major markets for Russian energy export until 2030. In this regard, measures should be implemented to reduce transit risks, including further development and improvement of a full-fledged export infrastructure, ensuring reliability of Russian energy supplies to these markets. However, the share of the European market in total Russian energy supplies will steadily decline as a result of diversifying the export in the Eastern direction. This key provision is retained in the relevant draft of the new RES-2035<sup>6</sup>.

The main guideline of energy foreign trade is that stable relations with the traditional and new consumers of Russian energy resources that correspond to Russian national interests, are crucial areas of energy policy in the sphere of global energy security. This is why one of the mechanisms of energy policy is the development of energy cooperation with the EU, the CIS, and the Eurasian Economic

<sup>&</sup>lt;sup>5</sup> Russian Energy Strategy for the period to 2030 // Decree of the Government of the Russian Federation of November 13, 2009 № 1715-r

<sup>&</sup>lt;sup>6</sup> Russian Energy Strategy for the period to 2035. Draft /<u>http://www.minenergo.gov.ru/upload/iblock/621/621d81f0fb5a11919f912bfafb3248d6.pdf</u>

Union (EAEU) as well as the need of rational development of energy transit through the Russian territory.

The lack of South Caucasus' issues in the RES-2030 and RES- 2035 confirms the suggestion that Russian actors do not reveal considerable risks or unique opportunities for energy security and cooperation with Armenia, Azerbaijan and Georgia. The reasons for this could be the following:

Firstly, there are incommensurable volumes of production, consumption and international trade of energy resources between Russia and the South Caucasus' countries.

The natural gas production in Russia in 2014 was more than 30 times bigger than that of all South Caucasus; the natural gas consumption – almost 30 times (Table 1, 2). The natural gas export of the only gas producing country of South Caucasus, Azerbaijan, was 20 times lower than Russia's. Concerning crude oil, the Russian production is more than 12 times bigger than Azerbaijan's; the export - more than 9 times.

Table 1. IEA Statistics. Natural Gas Information 2015

|                                | Russia  | Armenia | Azerbaijan | Georgia |
|--------------------------------|---------|---------|------------|---------|
| Natural gas production, mcm/a  | 643 564 | -       | 20 494     | 5       |
| Natural gas consumption, mcm/a | 461 481 | 2 427   | 11 673     | 1 917   |
| Imports of natural gas, mcm/a  | 8 594   | 2 427   | -          | 1 912   |
| Exports of natural gas, mcm/a  | 187 885 | -       | 8 821      | -       |

Table 2. IEA Statistics. Oil Information 2015

|  | Russia  | Armenia | Azerbaijan | Georgia |
|--|---------|---------|------------|---------|
| Crude oil and NGL production, thousands of tons /a | 528 567 | -       | 42 263     | n/a     |
| Imports of crude oil and NGL, thousands of tons /a | -       | n/a     | -          | n/a     |
| Exports of crude oil and NGL, thousands of tons /a | 221 598 | n/a     | 23 612     | n/a     |

Therefore, the South Caucasus' potential maximum share (in case of hypothetical Russian supplies to Georgia, and no Azeri exports) is only 2.3 % of total current Russian export. In other words, we can conclude, that South Caucasus natural gas market is of no interest to Russian energy security in terms of market diversification. Still, via the Russian gas transport system, 200 mcm of Azeri natural

gas were transported in 2014<sup>7</sup>. This constitutes only 2.3 % of Azerbaijan's total supplies and there is a significant potential for cooperation in gas transit.

Secondly, most of Azeri energy exports in 2014 were directed to the European OECD countries including Turkey, and constituted 6 068 mcm versus 141 467 mcm of similar Russian supplies. Thus, there is no serious competition so far between Russian and Azeri supplies to Europe at the current market situation, and no adequate vulnerability to energy security.

Thirdly, the geopolitical tensions in South Caucasus distort pure economical motives. Armenian isolation dictates political reasons of Armenian-EAEU integration and implementation of EAEU energy regulation. At the time of integration of Armenia to the EAEU in the beginning of 2015, the level of Russian influence in the energy sector was incredibly high. Gazprom has concentrated imports and distribution of natural gas. Russian companies have gained control of power generation, including the hydropower plants cascade, which had been passed to Russians as a repayment of debt for delivered nuclear fuel. Moreover, the issue of building a new unit of the Armenian nuclear plant is directly linked with future Russian investments. That means that Armenian energy market (including electricity sector) can be considered by Russian actors as a domestic energy market, where social and political stability issues are dominant and form the economic context.

Moreover, post-war Russian-Georgian relations warn both sides of direct energy cooperation. Taking into account small market niches, we admit no direct influence to Russia's energy security.

Fourthly, Turkey exerts appreciable influence on the South Caucasus – Russian energy security relations. Turkish natural gas consumption in 2014<sup>8</sup> was 48 456 mcm. 25 407 mcm of imports (52.4 % of total imports in 48 892 mcm) have come from Russia, while Azerbaijan was responsible for 6 068 mcm (12.5 %). There were no crude oil supplies<sup>9</sup> from Azerbaijan to Turkey in 2014, and only 608 thousand tons have come from Russia and constituted only 3.5 % of total crude oil imports.

<sup>7</sup> Annual Report of OJSC "Gazprom" for 2014

<sup>&</sup>lt;sup>8</sup> IEA Statistics. Natural Gas Information 2015

<sup>&</sup>lt;sup>9</sup> IEA Statistics. Oil Information 2015

Azerbaijan occupies a central place in the logistic map of the Greater Middle East. The Turkish natural gas market is really the only place where Russian – Azeri commercial competition arises, but Azerbaijan's current market power is still incomparable.

## 3. WHAT MAIN THREATS AND RISKS ARE ASSOCIATED WITH THE SOUTH CAUCASUS IN TERMS OF RUSSIA'S ENERGY SECURITY?

Russia's position in the dynamic and highly competitive global energy markets differs greatly from the previous years. The main long-term external threat is a drop in revenues from energy exports due to the stagnation in demand and changes in the regulation and pricing on major Russian export energy markets. The centre of the demand growth has moved to emerging markets (mainly – Asian), where the Russian presence is limited.

As was already mentioned, the most reasonable issue of South Caucasus influence on Russia's energy policy is the current and the potential competition from Azeri natural gas supplies to the European market. Now it constitutes a negligible 6 bcm/a in comparison with Russia's 141 bcm/a<sup>10</sup>. But the market situation will change.

The EU is still interested in new natural gas import facilities all over the continent, including LNG terminals and additional pipelines and energy routes, such as the Trans-Adriatic pipeline (TAP), the Trans-Anatolian gas pipeline (TANAP), Nabucco, and to some extent the Turkish (previously South) Stream (Picture 1). The Baku-Tbilisi-Ceyhan Oil Pipeline and the Baku-Tbilisi-Erzurum Gas Pipeline (South Caucasus Pipeline), built after the dissolution of the Soviet Union, are important examples of pipelines creating an alternative to the Russian-controlled export routes<sup>11</sup>.

South East European countries will probably dilute their current full reliance on Russian natural gas supplies as the long-term contracts with Gazprom will begin to

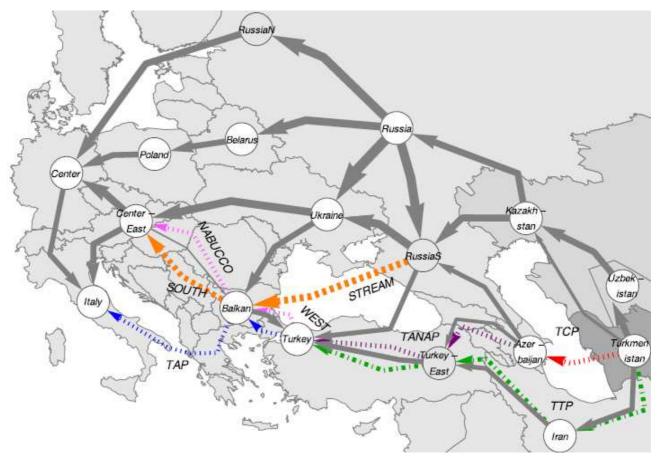
<sup>&</sup>lt;sup>10</sup> The statistics of the Central Bank of Russia shows even more - 174,3 bcm of Russian natural gas export in 2014. But for methodologically appropriate comparison we use the IEA Natural Gas Information 2015.

<sup>&</sup>lt;sup>11</sup> The European Union and its energy security challenges. Rafael Leal-Arcas, Juan Alemany Rios and Costantino Grasso // Journal of World Energy Law and Business, 2015

expire in the 2020s (the contract with Slovenia expires in 2017, with Serbia in 2021, with Bulgaria in 2022, and with Slovakia in 2028).

Azerbaijan-sourced gas can be transported to these countries via existing or planned interconnectors, which will lower cost of transportation and provide supply diversity. Moreover, the Balkans is the only region in Europe, where demand is expected to grow significantly by 2030. Therefore, there can be a ready market for Azeri gas in the countries of the SEE, Central Europe and the Balkans as these are keen to diversify away from Gazprom supply after expiration of their existing contracts<sup>12</sup>.

The key features of the developing Southern gas corridor (SGC) refers to bypassing Russia and exploiting non-Russian Caspian gas reserves.



Picture 1. Gas Pipelines in Eurasia<sup>13</sup>

Due to insoluble problems with Nabucco, Azerbaijan (80 % share) and Turkey (20 %) agreed in 2011 to initiate the TANAP project (a pipeline from the Georgian-

<sup>&</sup>lt;sup>12</sup> The Outlook for Azerbaijani Gas Supplies to Europe: Challenges and Perspectives // The Oxford Institute for Energy Studies, June 2015

<sup>&</sup>lt;sup>13</sup> Central Asian gas in Eurasian power game. Onur Cobanli // Energy Policy 68 (2014) 348–370

Turkish border to the Turkish-European border). As a continuation of the TANAP, the Trans-Adriatic Pipeline (TAP) was also proposed, with an initial capacity of 10 bcm/a which can be doubled later on if needed. Thus, Azerbaijan has been able to position itself almost as a key actor in the EU's Southern Corridor initiative<sup>14</sup>.

According to the Outlook for Azeri gas supplies to Europe,<sup>15</sup> natural gas production in Azerbaijan is provided by the giant field Shah Deniz (SD), whose output at current Phase 1 is 9 bcm/a at its plateau level. The next phase of development of the field will increase the plateau by some 17 bcm/a, to a total of more than 26 bcm/a from both phases starting late 2018. The overall gas volume of SD2 contracted at the Georgia-Turkey border will be above 16 bcm/a, of which about 10 bcm/a are contracted with the European buyers and 6 bcm/a with Turkish BOTAS; 1 bcm/a will be transferred to Georgia as a transit fee.

The infrastructure to be built and expanded for those volumes seems to be sufficient to transport some additional 15 bcm/a in the 2020s and 20 bcm/a in the 2030s. This could be achieved via further expansion of SCP. TANAP's stage by stage expansion will be capable of accommodating an additional 15 bcm/a in the 2020s and 20 bcm/a in the 2030s with possible expansion up to 60 bcm/a if needed.

Hence, there are two markets for Azerbaijan's rising natural gas supply: Turkey and Europe – the same markets where Russian Gazprom operates. The Turkish market seems to be the most commercially profitable for Azerbaijan because of the short distance and reasonable price. However, the direct Russian-Azeri competitive clash on the Turkish market is avoided by rapidly growing demand for gas in Turkey and its awareness on import diversification. In order to secure its supply, Azerbaijan also seeks to diversify its demand risk – to the European market.

In the most optimistic scenario for Europe, with significantly increased LNG imports, additional pipeline gas imports will still be required. Given the likely future: Turkish gas demand growth and its need to import additional volumes of gas, at least

<sup>&</sup>lt;sup>14</sup> Russia's natural gas policy toward Northeast Asia: Rationales, objectives and institutions. Elena Shadrina // Energy Policy 74 (2014) 54–67

<sup>&</sup>lt;sup>15</sup> The Outlook for Azerbaijani Gas Supplies to Europe: Challenges and Perspectives // The Oxford Institute for Energy Studies, June 2015

half of the 15 bcm/a of Azerbaijan's un-contracted "free" gas available in the 2020s can be absorbed by Turkey. The remaining 7+ bcm/a may be absorbed in Southeast European countries (Bulgaria, Romania, Macedonia, Serbia) and Central European countries (Czech Republic, Slovakia, Poland) as well as the Balkans.

There is actually a ready market niche for Caspian gas supply in Greece, the Balkans and Central Europe mostly due to the current market trends and political imperative of reducing dependency on Russia, rather than to economic incentives. Thus, Azeri gas will inevitably substitute some of these volumes (but not in dramatic proportions, as SD production potential is limited).

Summing up, competition from Azeri gas is the main threat for Russian energy security in South Caucasus, which is able to undermine Russian gas export volumes to Turkey and Europe and lessen the country's export revenues.

Another threat is associated with the less probable (though strongly discussed) option of the Trans-Caspian gas pipeline construction, which is supposed to carry gas from Turkmenistan, Kazakhstan and maybe Uzbekistan through the Caspian Sea to Turkey and Europe via expanded SGC. As the Caspian legal status is still not settled, this construction is questionable, but there are many efforts from the European side to promote this idea. The potential arrival of these larger gas volumes from Central Asia is a challenge for the Russian competitive position in the European gas market and therefore this project is regarded by Russia as highly undesirable and creating a serious threat to its national energy security.

#### 4. HOW DOES RUSSIA VIEW ITS ROLE IN CONTRIBUTING TO THE SOUTH CAUCASUS' ENERGY SECURITY ?

Due to a number of political Armenia-Azerbaijan and Russia-Georgia tensions, we can conclude that the common energy security of the South Caucasus could hardly exist. Azerbaijan is self-sufficient in its energy needs and thanks to a variety of international oil companies operating in the country, has an access to up-to-date drilling technologies. Georgia, due to the impossibility of the direct Armenian-Azeri energy cooperation, enjoys natural gas supplies as a transit fee for SCP. Armenia, being blocked by hostile Azerbaijan and Turkey, has become a Russian energy satellite.

Georgia is highly dependent on Azerbaijan for its oil and gas provisions, although it has no control over the operation of the pipes traversing its territory. This strategic geography allows Georgia to expect better terms from Azerbaijan regarding energy supply, however, has less weight for fine-tuning it to its political agenda due to its own conflict with Russia, the ex-major energy supplier. Furthermore, SOCAR has bought and controls most of the distribution companies in Georgia<sup>16</sup>.

Although the European Commission endorses the projects linking the Caspian Region and Central Asia to the European markets, Azerbaijani and Turkmen supply bring marginal gains to the European consumers<sup>17</sup>. Transporting gas from the Azeri-Russian border through, for example, the South Stream, appears to be cheaper than using the Ukrainian pipelines<sup>18</sup>.

Despite the enormous costs and difficulties of building such a pipeline, Gazprom repeatedly stated it was committed to the project, now changed into Turkish Stream. In the absence of other valid economic reasons for the company, its main purpose appeared to be to undermine European ambitions of reducing dependence on Russia's gas supply by means of the construction of SGC.

TANAP's uniqueness comes from its promotion of competition both in economic and political terms. TANAP increases the amount of supply, bringing an additional supplier through an alternative route which is controlled not by one nation or state, but by several nation-states<sup>19</sup>. Still, both suppliers, Russia and Azerbaijan, enter into tough competition with LNG imports, where a competition to supply leads to a loss of control over pricing. A new market paradigm affects the future LNG export plans and

<sup>&</sup>lt;sup>16</sup> EU's external energy governance: A multidimension alanalysis of the southern gas corridorю Faig Galib Abbasov // Energy Policy 65 (2014) 27–36

<sup>&</sup>lt;sup>17</sup> Central Asian gas in Eurasian power game. Onur Cobanli // Energy Policy 68 (2014) 348–370

<sup>&</sup>lt;sup>18</sup> Strategic Eurasian natural gas market model for energy security and policy analysis: Formulation and application to South Stream. Chi Kong Chyong, Benjamin F. Hobbs // Energy Economics 44 (2014) 198–211

<sup>&</sup>lt;sup>19</sup> The Trans-Anatolian Pipeline (TANAP) as a unique project in the Eurasian gas network: A comparative analysis. Volkan Ozdemir, H. Bugra Yavuz, Emine Tokgoz // Utilities Policy xxx (2015) 1-7

already demonstrates that Russia is changing its market practices compared to the existing previous ones in exports to Europe. Implications for Europe are also significant. European consumers enter into a tougher competition with Asia for LNG supply. Hence, their attempts to import non-Russian gas will be somehow challenged by the price dynamics in Asia. This actually means that the security of supply for Europeans is increasingly geared toward the development of the Asian markets rather than in their relations with Russia<sup>20</sup>.

Russian actors perceive their role in energy security of the South Caucasus in the following dimensions:

- 1. Energy support of Russian citizens and Russian allies is essential. It concerns both Armenian energy supply and management, and ensuring energy stability in Abkhazia and South Ossetia.
- 2. The construction of TANAP and TAP does not constitute a serious menace for Gazprom market positions in Europe due to (a) political motives of European energy policy, (b) rising demand in Turkey and in the Balkans countries, (c) limited possibilities of Azeri supply building-up.
- Moreover, forming a huge gas hub on the Greek-Turkish border at the end point of TANAP may facilitate Gazprom's efforts to reroute negotiating of gas supply from Ukraine transit to the Turkish Stream.
- 4. Pragmatic relations with Azerbaijan should be maintained in order (a) to secure Russia's business share in Shaz Deniz consortium (Lukoil), (b) to provide the potential growth in Russian transit of Azeri gas, (c) to escape being indrawn in a ruinous pipeline building race.
- 5. A Trans-Caspian pipeline contradicts Russian national interests on the European gas market and should be set aside, while Turkmen gas should be transited either via Russia or to either China or India.

Russia's gas export reorientation from West to East: economic and political considerations. Andrei V. Belyi // Journal of World Energy Law and Business, 2015, Vol. 8, No. 1

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