

Emil Asenov

Development of the Regional Natural Gas Market in Southeast Europe

The high level of reliance on external energy supplies, mainly from Russia, is considered a major risk to the energy security in Southeast Europe. This dependency is being addressed by the European Union's new contractual and institutional framework. The construction of new gas pipelines and related infrastructure is being undertaken in a timely manner to secure supplies from alternative energy sources and enhance their sustainability. Still, the EU's policies have run up against Russia's systematic and stubborn resistance as it struggles to preserve its dominance in Europe's energy market and thwart the implementation of competing energy projects. Despite this, Southeast Europe's energy markets will soon be able to ensure a higher level of diversification and secure its supplies.

The Southeast European region is an important historic transport corridor connecting Europe, Asia and Africa. A vital section of the Trans-European energy infrastructure is located here.

As a rule, most of the research on this region divides it into two parts: Eastern and Western Balkans. The Eastern Balkans area includes two countries that have already joined the European Union – Romania and Bulgaria. The Western Balkans covers the republics of the former Yugoslavia and Albania. These two groups have many shared social, economic and political traits.

Characteristics of the natural gas consumption and supply system in Southeast Europe

The issues relating to natural gas consumption and its reliance on imports in Southeast Europe differ from those of the EU. Natural gas accounts for a much smaller part of the energy consumption structure in SEE compared to the rest of the continent.

Only Romania has a substantial share of domestic natural gas production, which amounted to 12 billion cubic

metres in 2005 and 11 billion cubic metres in 2015. The volume is forecasted to remain at this level until 2025. Romania also has the highest consumption of natural gas in the region, at 14.6 billion cubic metres annually. Most of the consumption in Romania is satisfied by domestic production, and thus the country is largely energy self-sufficient.¹

Quite different is the situation with Bulgaria, where the annual consumption of natural gas is 3.6 billion cubic metres. Around 3.3 billion cubic metres, or over 90% of the annual import of natural gas, comes from Russia. Bulgaria is amongst the most energy-dependent countries in Europe.²

Croatia relies to a much lesser extent on foreign energy suppliers. It consumes around 2.3 billion cubic metres of natural gas annually. Some 75% of this consumption is covered by self-produced natural gas. The remainder is met by energy supplies from other European countries.

Reliance on Russian imports in the other Western Balkan countries, however, remains high. Supplies from Russia cover the consumption in Serbia almost entirely, which

- 1 S. Melnikova, E. Geller, T. Mitrova, V. Kulagin: The gas market in the EU - the era of reform, Institute of Energy of the Russian Academy of Sciences and Moscow Economic School, 2016, p. 47, available at https://www.eriras.ru/files/gazovyy_rynok_es_-_epokha_reform.pdf.
- 2 V. Kulagin, T. Mitrova: Europe's gas market: lost illusions and timid hopes, Institute of Energy of the Russian Academy of Sciences and Moscow Economic School, 2015, p. 53, available at https://www.eriras.ru/files/gazovyy_rynok_evropy.pdf.

Emil Asenov, University of National and World Economy, Sofia, Bulgaria.

amounts to 3 billion cubic metres. The country has limited domestic production that covers only around seven per cent of its consumption. Bosnia and Herzegovina and the Republic of Macedonia also rely exclusively on Russian gas, which is transited through Serbia, while Kosovo and Montenegro do not use natural gas at all. Albania consumes insignificant volumes of natural gas, which it produces itself. Of the whole Western Balkans region, only Serbia and Croatia have a meaningful natural gas market, followed by Bosnia and Herzegovina.

The above facts indicate that the countries from the region, with the exception of Romania and Croatia, are highly dependent on Russian energy supplies. The extent of Russia's penetration of the energy sector in this region, however, varies largely across countries. This fact determines the specific objectives of the Russian energy policy. Russia seeks to strengthen its influence in the countries where its positions are traditionally strong, while simultaneously looking for opportunities to establish and deepen its position in countries where its influence is weaker. Russia's attempts to gain influence in the energy sector are countered by the EU's energy security policy. Risks to European energy security are manageable via diversification of the energy resources by types, sources, suppliers and routes, while also taking into account the regional and global trends in the energy markets.

Risks associated with the high level of dependence on Russia's natural gas supplies to the region

The natural gas from Russia is supplied via two main channels: through the Trans-Balkan pipeline to Romania, Bulgaria and Greece, and through Hungary to Croatia, Serbia, and Bosnia and Herzegovina. The negative impacts of overdependence on a single supply source were especially pronounced and dramatic during the Russian-Ukrainian gas crisis in 2009. On 6 January 2009, just ten per cent of the normal flow of gas was transmitted via the main pipeline to Slovakia, with heavy implications for Western Hungary, Slovenia and Croatia. Eastern Hungary, being a transit point for Serbia and Bosnia and Herzegovina, received only 20% of the normal volumes. As a result, the Western Balkan countries were left without natural gas. At that point, only Croatia was able to cope with the crisis, by increasing its own production and importing gas from Germany's gas storages through Slovenia. Serbia resorted to its own reserves; they were limited, however, and thus insufficient to make up for the energy deficit. A few days later, Bosnia and Herzegovina and the Eastern parts of Serbia received a share of Hungary's gas reserves, but it was not enough to meet their energy needs. Therefore, Serbia had to resort to the ex-

tensive utilisation of lignite and fuel oil to make up for the energy shortage.³

The risks associated with the high level of dependence on Russia's natural gas imports were also confirmed by the results of the European Commission's stress tests, which assessed scenarios in which Russia completely halts the flow of supplies or halts the transit through Ukraine's territory for a period of one to six months. In the latter scenario, Bulgaria, Hungary, Bosnia and Herzegovina, Macedonia, Serbia, Finland, and the Baltic countries would have to cut down on gas consumption by 20% to 60%, while Poland, Romania and Greece would have to reduce their consumption by ten per cent. The maximum monthly reduction could reach 100% in Bulgaria, Finland, Bosnia and Herzegovina, and Macedonia; 73% in Estonia; 64% in Serbia; 59% in Lithuania; 35% in Hungary; 31% in Romania; and 28% in Poland.⁴

These facts illustrate that Europe's dependence on natural gas imports from Russia is a major challenge that calls for a timely and effective solution. In response, the EU has undertaken the creation of an energy market in the region through construction of new pipelines, reverse links and gas storage facilities to enhance the sustainability of energy supplies. The storage of gas, coupled with the greater efficiency of reverse connections, could largely mitigate the adverse impacts of an energy supply disruption. At the same time, the functioning market makes it possible to achieve optimal price levels and management of gas flows.

EU's contractual and institutional framework guaranteeing energy security

The foundations of the EU single energy market were cemented with the adoption of the Energy Charter Treaty in 1991 in the form of a common legal framework agreed to by 51 countries, including the US, Canada and Russia. This was followed by the Energy Charter Treaty of 1998, a legally binding document ratified by 30 state signatories, including Russia.

3 M. Moraliyska: The Region of Southeast Europe: The Island of Missing Gas Connectivity and its European Implications, in: M. Bilgin, H. Danis, E. Demir, U. Can (eds.): Business Challenges in the Changing Economic Landscape, Proceedings of the 14th Eurasia Business and Economics Society Conference, Vol. 1, 2016, pp. 497-526.

4 European Commission: European Energy Security Strategy, Communication from the Commission to the European Parliament and the Council, COM (2014) 330 final, 28 May 2014, available at <http://www.eesc.europa.eu/resources/docs/european-energy-security-strategy.pdf>.

In July 2009, however, the Russian Federation issued a decree rejecting the Energy Charter Treaty. Russia was unwilling to accept the norms on transit, preferring the continuation of the status quo in Europe. At the end of 2010, it tabled its own alternative project in the Energy Charter Secretariat – a Convention on Ensuring International Energy Security.

In response to Russia's unilateral actions, the EU adopted expanded transmission rules, the so-called Third Energy Package.⁵ The document, which contains EU legislative measures, went into effect in 2009 and applies to the gas and electricity market in the EU. In general, it includes principles relating to:

- further opening of the domestic energy markets of the member countries (as opposed to protectionism);
- integration of the European market and inclusion of the isolated markets (e.g. countries such as Bulgaria); and
- ensuring free competition among market players as widely as possible.

The European Commission's European Energy Security Strategy proposal of May 2014 attempted to mitigate the risks associated with the supply of natural gas to European countries.⁶ The document states that the general demand for energy has been growing steadily and is expected to increase 27% by 2030. On the other hand, internal energy production in the EU declined by almost one-fifth between 1995 and 2012. Over 50% of the Union's energy needs are covered by external suppliers: in 2012, nearly 90% of oil, 66% of gas and 42% of solid fuels consumed in the EU were from imports, at a price exceeding €1 billion per day.

The EU's efforts to create an integrated energy market continued, and on 25 February 2015 the European Commission published a document on the establishment of a European Energy Union,⁷ which would pursue a common position by all EU member countries in the energy field, including relations with third countries. There are several

5 Regulation (EC) No. 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No. 1775/2005, 14 August 2009, available at <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:211:0036:0054:en:PDF>

6 European Commission: European Energy Security Strategy, op. cit.

7 European Commission: Roadmap for the Energy Union, Annex 1 to A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy, COM(2015) 80 final, 25 February 2015, available at https://eur-lex.europa.eu/resource.html?uri=cellar:1bd46c90-bdd4-11e4-bbe1-01aa75ed71a1.0001.03/DOC_2&format=PDF.

key highlights in energy policy orientation in this strategic document:

- Ensuring the safety of energy supplies by reducing the energy dependence of EU member countries by more effectively utilising energy sources and diversifying the supply sources;
- Developing an internal energy market with liberalised energy flows, free of any technical or regulatory barriers, which would ultimately ensure an optimal price level and would fully utilise the existing potential in the area of renewable energy sources;
- Increasing energy efficiency, which would help to reduce the harmful effects on the environment and the need for energy imports;
- Cutting emissions (achieving a 40% reduction in emissions in 2040 compared to 1990); revising the European trade system, the carbon emissions trading quotas and higher investments in renewable energy sources;
- Research and innovations in the energy field that could ensure leadership in the areas of alternative energy and energy consumption reduction.

The European Union's activities in ensuring safety of supplies were expanded with a regional initiative. On 15 February 2015, at a meeting in Sofia, the Central East South Europe Gas Connectivity (CESEC) High Level Working Group was set up to ensure the diversification of natural gas supplies and market integration in the region.⁸

A Memorandum of Understanding was signed on 15 July in Dubrovnik, formally launching the initiative, which was comprised of Austria, Bulgaria, Greece, Italy, Romania, Slovakia, Slovenia, Hungary, Croatia, Albania, the former Yugoslavian Republic of Macedonia, Serbia, Ukraine, Bosnia and Herzegovina, and Moldova. The CESEGC's focus is on constructing new pipelines and achieving optimal utilisation of the existing infrastructure.

Implementing the EU strategy on energy security in the region

An important part of the strategy for ensuring energy security in the region is the construction of new pipelines and increasing the capacity of the existing gas transmis-

8 European Commission: Joint Press Statement by Ministers and Representatives of Austria, Bulgaria, Croatia, Greece, Hungary, Italy, Romania, Slovenia and Slovakia and the European Commission, Press Release, 9 February 2015, available at http://europa.eu/rapid/press-release_STATEMENT-15-4281_en.htm.

sion network. The following projects should be mentioned here:⁹

- The Southern Gas Corridor transports 10 billion cubic metres of gas per year to EU markets in Greece and Italy from new gas sources in the Caspian region passing through Azerbaijan, Georgia and Turkey. The project includes a pipeline to the EU from Turkmenistan and Azerbaijan via Georgia and Turkey, which is a combination of the Trans-Caspian Pipeline (TCP), the South Caucasus Pipeline Expansion (SCPX) and the Trans-Anatolian Natural Gas Pipeline (TANAP). It also includes a pipeline from Greece to Italy via Albania and the Adriatic Sea, known as the Trans-Adriatic Pipeline (TAP).
- The Eastring Gas Corridor (Pipeline) between Slovakia, Hungary, Romania and Bulgaria enables bi-directional flows of natural gas from alternative sources. The pipeline capacity is projected to be between 20 and 40 billion cubic metres per year and will provide a new corridor for natural gas supplies between the markets in Central and Western Europe and Turkey.
- A phased capacity increase on the bi-directional gas transmission corridor Bulgaria-Romania-Hungary-Austria, which would enable the transmission of some 1.75 billion cubic metres of gas after the first phase and 4.4 billion cubic metres after completion of the second phase.
- A pipeline between the natural gas deposits in the eastern part of the Mediterranean Sea and mainland Greece via Crete, referred to as the EastMed Pipeline.

The strategy also calls for the construction of reverse links between the countries from the region as well as storage facilities for natural gas. These projects include:

- The Intersystem connection between Komotini, Greece and Stara Zagora, Bulgaria is a major transmission route (along with the interconnector Sidicastro-Kulata), for example from the Trans-Adriatic Pipeline and the Greek liquefied gas terminal in a northerly direction. The first stage of the project envisages a capacity of 3 billion cubic metres of gas along the new 140 km route. This would subsequently be increased to 5 billion cubic metres.

- The Intersystem gas connector Bulgaria-Turkey enables diversification of natural gas sources and thereby the security of supplies to the region and development of competition. The interconnector is essentially a new onshore gas pipeline on the Bulgaria-Turkey border (parallel to the existing Trans-Balkan pipeline) that extends about 76 km into Bulgarian territory and has a capacity of 3 billion cubic metres per annum.
- The intersystem connector Bulgaria-Romania is now complete. The route runs 25 km and enables the transmission of 3-5 billion cubic metres of natural gas per annum between the planned entry points on Bulgaria's southern border and between Romania and Hungary, with the possibility of access to the Central European gas market.
- The Interconnection Bulgaria-Serbia runs between Sofia, Bulgaria and Nish, Serbia. It is 150 km long and will link the gas transmission grids of Bulgaria and Serbia. Initially, the pipeline is expected to enable a supply capacity of 1.8 billion cubic metres.

In order to utilise the potential of the global market for liquefied natural gas and enable diversification of supplies to the Southeast European countries, liquefied natural gas terminals in both Croatia and northern Greece are envisaged.

The development of national gas transmission grids and storage facilities for natural gas in the countries from the region requires a number of steps. First of all, a gas transmission system in Bulgaria needs to be incrementally developed in order to ensure that the natural gas can be freely transported both within and outside of Bulgaria's territory via the existing and planned intersystem connections with Greece, Serbia and Romania. A similar phased development of a gas transmission system must also be undertaken in Romania to ensure that the existing and planned bi-directional intersystem connections with Bulgaria, Hungary, the Republic of Moldova and Ukraine are integrated in the regional market. Secondly, the Romanian gas deposits in the Black Sea need to be connected with the Romanian gas transmission network. Thirdly, the capacity of the existing underground gas storage facilities in the village of Chiren, Bulgaria and Sarmasel, Romania must be expanded.

Russia's energy policy in Southeast Europe

The EU's plan to supply natural gas from the Caspian region to the countries in Central and Southern Europe via a land pipeline network was named the Southern Gas Corridor (SGC). The EU views the SGC not only as a means

⁹ European Commission: The Union List of Projects of Common Interest ('Union List') referred to in Article 3(4), Annex VII to the Regulation (EU) No. 347/2013 of the European Parliament and of the Council as regards the Union list of projects of common interest, C(2017) 7834 final, 23 November 2017, available at https://ec.europa.eu/energy/sites/ener/files/documents/annex_to_pci_list_final_2017_en.pdf.

of ensuring Europe's energy security (as an additional source of natural gas supply) but also as an instrument to diversify the sources of supply and reduce dependence on Russian gas. Russia, however, sought to keep the status quo intact by obstructing the implementation of all projects intended to ensure alternative supplies of natural gas to the European markets.

At the turn of the century, Russia's strategy appeared to be working. It thwarted plans for the construction of an alternative gas pipeline from Azerbaijan via Turkey to Europe. These shipments were postponed, and the plans for the construction of a Trans-Caspian gas pipeline, which would ensure the transportation of gas to Europe from Turkmenistan, failed.

Subsequently, a consortium of European energy companies made a new attempt at bringing the SGC to life via the Nabuko project, with active support from the European Union. The project sought to supply gas from potential deposits in Azerbaijan and Central Asia. Shipments were scheduled to start in 2011 and reach 25 billion cubic metres in 2020. Resource provisioning proved problematic, however, as they had only planned to use the Shah Deniz II gas field capacity in Azerbaijan.

Russia's response to the Nabuko project was swift. In June 2007, it tried to position itself next to the SGC route with its South Stream Pipeline Project. Unlike Nabuko, this project had no problems with its resource provisioning. Its implementation allowed Russia's gas to skirt Ukraine and Turkey as transit countries and directly access the EU at Nabuko's planned destination point. However, the implementation of the project precluded Russia from having any control over the gas supplies from rival suppliers in Europe via Turkey's territory. At that point, though, the possibility of direct supplies of potential future competitors via the SCG was rather hypothetical and far off.

Just a few years later, however, plans for the construction of an SGC were further developed through two new pipeline projects. The construction of the TANAP pipeline received state support in December 2011 when the governments of Turkey and Azerbaijan signed a Memorandum of Understanding. The TAP followed shortly thereafter in September 2012 with a Memorandum of Understanding between Albania, Greece and Italy. In February 2013, the countries signed an intergovernmental agreement, and in September 2014, they broke ground in Azerbaijan.

Russia was again quick to respond, and on 1 December 2014, Russian President Vladimir Putin called off the South Stream Pipeline Project, which was subsequently rerouted south across Turkey's territory. The project was

renamed TurkStream. The project includes the construction of two gas pipelines of a total capacity of 31.5 billion cubic metres. One pipe, with a capacity of 15.75 billion cubic metres, will supply natural gas to Turkey, while the other pipe of the same capacity will supply natural gas to Europe. The analysis of Russia's actions leads a number of observers to maintain that the South Stream Pipeline was conceived more as a political project rather than an economic one. Although its objective appears to be skirting the territory of Ukraine via the construction of a new pipeline, it has another, far-reaching geostrategic goal: to block the implementation of rival projects for alternative energy supplies in the region.¹⁰

Assessment of the future development of the gas transmission infrastructure in Southeast Europe

The EU's plans to secure an alternative supply of natural gas for Central and Southern Europe via a land pipeline network are progressing well. The projects are at different stages of implementation, with the most important one – the SGC – due to be completed by the end of 2020.¹¹

The dependence on natural gas imports from Russia for the countries in Southeast Europe is projected to fall significantly in the coming years. The total volume of future supplies via the SGC from the Caspian region, the supplies through the liquefied gas terminals in Turkey, and Romania and Croatia's own production will meet almost all the needs of the regional market, which is "less than 30 billion cubic metres per year".¹²

The natural gas transmission and supply infrastructure will expand its structure and capacity by creating cross-country reverse connectivity in the region. Additionally, the national gas transmission networks of Romania and Bulgaria have been developing and expanding their capacity.

In this context, it should be noted that the sub-region covering the Western Balkans will still be left without an adequate energy infrastructure. The implementation of the energy projects in the region will benefit, above all, EU member states where the largest natural gas pipelines will be constructed, such as Greece, and those with an inter-

10 D.Y. Volkan: Eurasian Gas Hub, Esco – Portal for energy saving, 13 January 2015, available at http://www.journal.esco.co.ua/industry/2015_1_2/art09.html.

11 P. Volgin: The southern gas corridor is almost ready, interview with G. Rzaeva, a-specto, 20 November 2017, available at <http://a-specto.bg/yuzhniyat-gazov-koridor-e-pochti-gotov/>.

12 V. Milov: Miller's blackmail as a cover for Gazprom's weakness, NoNaMe blog, 8 December 2014, available at <http://vmilov.blogspot.com/2014/12/blog-post.html>.

system connection with neighbouring countries, including Bulgaria.

The implementation of the EU projects will not only expand the gas infrastructure in the region, but it will also ensure a more diverse and secure supply on the European continent. The SGC will secure gas supplies from new alternative sources from the Caspian region. And the Eastring and Bulgaria-Romania-Hungary-Austria gas pipelines will ensure new corridors in a northerly direction between the Southeast, Central and Western Europe.

The region will become part of the global market for liquefied natural gas with the construction of liquefied gas terminals. Following the implementation of the liquefied natural gas terminals in Croatia and Northern Greece, the share of imported liquefied natural gas in the region is expected to increase sharply; it is set to reach 14 billion cubic metres per year by 2025, covering around 70% of the consumption in the region.¹³

The construction of TurkStream, which is scheduled to be complete by the end of 2018, will leave Romania and Bulgaria outside the chain of supply. The countries will lose their importance as transit countries on the Trans-Balkan Pipeline route to Turkey. It is economically more advantageous to Russia to supply Turkey with natural gas directly from the Russian border via an offshore section to Turkey's territory than to transit these quantities through Ukraine, Romania and Bulgaria.¹⁴

Halting the transit through the Trans-Balkan Pipeline is part of Russia's more extensive plan to completely suspend the transit through the territory of Ukraine when the current transit agreement expires in 2019.

Regardless, Gazprom's commitments to supply energy to the European market remain. The delivery of these supplies cannot be carried out via the first TurkStream route. The transit agreement between Russia and Ukraine will be valid until 2019, whereas many of Gazprom's contracts for natural gas supply to European customers (including countries from Southeastern Europe) through Ukraine have a much longer term. For instance, a contract with the Italian company ENI for the supply of up to 25 billion cubic metres will not expire until 2035. These facts lead to

the assumption that a new short-term transit agreement is inevitable as an interim compromise.

The fate of the second TurkStream route remains unclear and is beyond Russia's control. At present, there is no inbound infrastructure on the EU border (the border of Bulgaria and Greece) to receive natural gas from Russia. The construction of the Bulgaria-Turkey interconnector is coming to a close. However, this new pipeline, running in parallel with the existing Trans-Balkan Pipeline, is intended to deliver alternatives to Russian gas, such as natural gas from Azerbaijan or liquefied gas from the existing terminals in Turkey. So far, the European Commission has firmly opposed the construction of any new inbound TurkStream infrastructure on European territory.

Due to its geographic location, Turkey is evolving into the most potentially significant transit country between Europe and Asia. Russia will need to be cautious with this new "transit risk". The implementation of the TurkStream project will seriously strengthen Turkey's position as a major transit hub. Apart from transporting Russian gas, Turkey will also transport gas to Europe from Azerbaijan and perhaps from Turkmenistan in the future. Russia is likely to continue to pursue a policy that will place limitations on its rival suppliers of energy resources.¹⁵

It should be noted that the EU has been successfully developing its energy policy to ensure energy security for Europe. In the near future, the energy markets in South-east Europe will be in a position to ensure a higher level of diversification and the increased security of energy supplies. This policy will also confront and tackle Russia's systematic and obstinate resistance, which nevertheless has been unable to thwart rival energy shipments to Europe's markets. During the time that Russia was strongly focused on dominating the European market, the global natural gas market underwent a radical transformation. Natural gas has evolved into an asset, equally tradable as an international commodity, produced in various geographic regions, and shipped by sea to any destination worldwide. Russia has been left out of this process, and it will have to accept that natural gas is no longer a regional product, but a global one. Russia will need to revise its energy policy accordingly in order to fit into this new paradigm.

13 Gas Infrastructure Europe – LNG Investment Database, April 2015, in: V. Kulagin, T. Mitrova: Europe's gas market: lost illusions and timid hopes, Moscow 2015, Institute of Energy of the Russian Academy of Sciences and Moscow Economic School, p. 58, available at https://www.eriras.ru/files/gazovyy_rynok_evropy.pdf.

14 A. Dumont: Are Nord Stream and Turkish Stream Profitable?, a-specto, 14 August 2017, available at <http://a-specto.bg/rentabilni-lisa-severen-potok-2-i-turski-potok>.

15 V. Ermakov: New configuration of Russian export gas pipelines in Europe, Higher School of Economics (HSE), 2017, p. 20, available at <https://energy.hse.ru/data/2017/04/13/1168161199/Gazoprovod.pdf>.