

Michał Paszkowski

Expansion of natural gas infrastructure in Southern Europe

The process of expanding energy transport capacity is currently underway in Southern Europe, with a particular focus on the natural gas market. Since the outbreak of the full-scale war in Ukraine in 2022, the primary goal has been to ensure greater diversification of natural gas sources and supply routes to Central European countries. Given the reduced availability of natural gas from Russia, many countries are striving to play a more significant role in the European natural gas market. A crucial aspect of this is the construction of appropriate infrastructure, including interconnectors, which are of fundamental importance.

Expansion of the IGB natural gas pipeline despite unfavourable market conditions. In early August 2024, the joint venture ICGB AD¹, operator of the Interconnector Greece-Bulgaria (IGB), announced plans to increase the pipeline's transmission capacity from 3 to 5 bcm per year, despite the lack of market interest in reserving additional capacity (binding capacity reservations were open from 2-12 July 2024). The IGB pipeline facilitates the transport of natural gas from Azerbaijan, Greece (Revithoussa regasification terminal, and from the end of 2024, Alexandroupoli), and Turkey (domestic production and regasification terminals such as Marmara Ereğlisi, Etki Liman, Botaş Dörtyol, and Gulf of Saros FSRU) to Bulgaria and onward to Central Europe. Despite the absence of binding offers for the additional 2 bcm per year, the company has decided to proceed with the pipeline expansion due to the potential future demand for transporting gas from Southern to Northern Europe. The expansion of the IGB pipeline is significant in the context of the "Vertical Gas Corridor"², which includes transmission system operators from Greece, Bulgaria, Romania, Hungary, Ukraine, Moldova, and Slovakia. This initiative aims to increase natural gas supplies to Central and Southeastern Europe as well as to Ukraine and Moldova by the end of 2025. Interestingly, non-binding offers received during the initial phase amounted to approximately 4 bcm per year for the following years. However, the binding phase, completed in July 2024, differed significantly from earlier declarations. At least four factors contributed to this situation. First, a one-and-a-half-year delay in the construction of the Alexandroupoli regasification terminal in Greece (expected to have an import capacity of 5.5 bcm per year from late 2025), which affected the synergy between the two projects. Second, the low price of natural gas in Turkey, influenced by the high availability of Russian natural gas (in July 2024, TurkStream pipeline deliveries reached their second-highest level in history). Additionally, the high price of LNG on the spot market in the Mediterranean has had an impact. Third, reduced demand for natural gas in the region, driven by price fluctuations in 2021-2023. Fourth, uncertainty surrounding the supply of Russian natural gas to Europe via Ukraine, with the transit agreement expiring on 31 December 2024. It remains unclear how the potential cessation of supplies from this direction will impact natural gas availability in Central European countries. Bulgaria is particularly interested in expanding the IGB pipeline's transmission capacity as it seeks to play an increasingly important role on the region's energy map (["IEŚ Commentaries, no. 864"](#)).

Intensification of Cooperation between Serbia and Romania. In early August 2024, Serbia and Romania signed a Memorandum of Understanding to build an interconnector linking both countries, with a transmission

¹ ICGB AD is registered in Bulgaria and its shareholders are Bulgarian Energy Holding (50%) and IGI Poseidon SA from Greece (50%). In turn, the shareholders of IGI Poseidon SA are the Greek company DEPA International Projects SA (50%) and the Italian energy group Edison SpA (50%).

² It does not plan to build new natural gas pipelines, but to implement previously defined, although partly still unfinished, projects (e.g., modernisation of the natural gas pipeline network in Bulgaria, construction of the Bulgarian-Romanian interconnector).

capacity of 1.6 bcm per year. The reversible pipeline will allow for natural gas transport in both directions. If completed, Serbia will be connected to the BRUA natural gas pipeline (linking Bulgaria, Romania, Hungary, and Austria). The Serbian section will be 12 km long, starting in Mokrin in the northeast, while the Romanian section will span approximately 85 km (97 km in total). Construction is expected to begin in 2025, with the Serbian section completed by 2027 and the Romanian section by 2028. The total investment cost is estimated at around EUR 99 million, with 88% incurred on the Romanian side (approx. EUR 87 million) and 12% on the Serbian side (approx. EUR 12 million).

Given Serbia's geographical location, the construction of another natural gas pipeline will strengthen its position on Europe's energy map. As a transit country, Serbia currently has access to import infrastructure in Greece (LNG terminals) and the Azerbaijani market via Bulgaria. The expanded infrastructure will allow Serbia to import natural gas produced in Romania as part of the Neptune Deep project, including the development of the Domino and Pelican South fields (["IEŚ Commentaries", no. 1164](#)). Additionally, with the construction of the natural gas pipeline to North Macedonia, Serbia will enhance its role as a transit supplier to Bosnia and Herzegovina and Hungary, leading to better integration of Southern and Central European markets. This development will also bolster energy security in the region concerning natural gas supplies.

For Romania, constructing this natural gas pipeline offers an opportunity to channel natural gas from the Neptune Deep project to Serbia and, indirectly, to other European countries. Playing a more significant role as a regional exporter requires developing appropriate infrastructure. Increased competitiveness and diversification of natural gas supplies are the main benefits for Romania, one of the leading producers of this commodity in the region.

Conclusions

- The natural gas infrastructure being built and expanded in Southern Europe is primarily aimed at ensuring greater diversification of natural gas sources and supply routes. These efforts are crucial as the natural gas agreement between Russia and Ukraine regarding transit is set to expire. The potential cessation of natural gas supplies from this direction raises concerns about the impact on natural gas availability and energy security in Southern and Central Europe. Interestingly, Ukraine has recently indicated that it might allow natural gas supplies from 2025, provided the gas originates from countries other than Russia, such as Azerbaijan, though this would be a complex process.
- The ongoing development of transmission capacity in Southern Europe faces challenges, primarily due to the still high availability of Russian natural gas (in Turkey), reduced regional demand (a result of recent energy crises), and potential difficulties in financing new energy projects (IGB pipeline financing includes consideration of American funds, including USAID).
- However, the difficulties in expanding the IGB pipeline appear to be temporary. With the commissioning of the Alexandroupoli regasification terminal and the potential cessation of Russian natural gas supplies via Ukraine, the natural gas import option for many countries will likely shift to Southern Europe. The IGB pipeline will then play a crucial role in ensuring energy security for Southern and Central European countries.