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Veröffentlichungsversion / Published Version

Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:

Bayramov, A., & , (2022). Europe's Energy Dilemma and Azerbaijan's Potential Contribution. *Russian Analytical Digest*, 284, 9-13. <https://doi.org/10.3929/ethz-b-000550755>

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Europe's Energy Dilemma and Azerbaijan's Potential Contribution

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DOI: 10.3929/ethz-b-000550755

Abstract

The main aim of this article is to explore the potential role of Azeri natural gas in meeting European Union energy security needs. Specifically, it seeks to ascertain the consequences for Azerbaijan's energy exports should Russia turn off the taps or the EU stop importing Russian fossil fuels. Could Azerbaijan help boost European energy security?

Introduction

The war in Ukraine has once again reminded the European Union of its heavy energy dependence on Russia. Despite the fact that the EU received significant signals from the 2006 and 2009 energy crises between Ukraine and Russia and the 2014 annexation of Crimea, it has not yet eliminated its energy dependence on Russia. On the contrary, Germany even facilitated the construction of the Nord Stream 2 pipeline bringing gas from Russia to the EU. (Germany did, however, halt the certification of the project following Russia's invasion of Ukraine in February 2022.)

Following the invasion of Ukraine, the EU adopted new sanctions packages against Russia. The bloc, however, excluded oil and natural gas because nearly 45% of its gas imports, 45% of its coal, and 25% of its crude oil come from Russia (European Commission 2022). The EU is aware that without Russian fossil fuels, its economy would be disrupted.

To counter the EU sanctions, Putin signed a decree requiring European countries to pay in rubles for Russian gas from April 1. The decree provided that contracts would be suspended if these payments were not made. On April 27, Moscow applied its energy power directly by cutting off gas to Poland and Bulgaria, which had refused to pay in rubles. This suggests that Russia may use the natural gas weapon against other member countries. Putin believes Russia has that capability: in his view, "a replacement for Russian gas simply does not exist" (Bloomberg 2022).

The war has also encouraged the European Commission to intensify its efforts to find alternative energy sources, as tensions between the West and Russia have increased markedly and these tensions are slowly beginning to impact the energy sector. German Energy Minister Robert Habeck visited Qatar and the UAE in March, while EU Commissioner for Energy Kadri Simson and EU Commissioner for Neighbourhood and Enlargement Olivér Várhelyi visited Baku to attend the 8th Ministerial Meeting of the Southern Gas Corridor

Advisory Council. The main aim of the visit was to ask for extra natural gas supplies from Azerbaijan. According to Energy Commissioner Simson, "we want the volume of gas exported from Azerbaijan to Europe to reach 10 billion cubic meters" (Wesolowsky 2022).

The principal purpose of this article is to explore the potential role of Azeri natural gas in meeting European Union energy security needs. More specifically, it intends to ascertain what the consequences are for Azerbaijan's energy exports should Russia turn off the taps or the EU stop importing Russian fossil fuels. What could this mean for Azerbaijan's energy exports? Could Azerbaijan help boost European energy security?

The EU's Energy Outlook

On March 8, the EC introduced an ambitious plan to decrease Russian natural gas imports by two-thirds before the end of the year and to make Europe independent from Russian fossil fuels by 2030 (European Commission 2022). The EU imported 43.5% of its natural gas from Russia in 2021; significant volumes also came from Norway (23.6%), Algeria (12.6%), the US (6.6%), and Azerbaijan (2%). Overall, the EU's natural gas import dependency rate was 83%, while natural gas production in the EU continued to decline (Eurostat 2022). Most of these imports came through pipelines, but a growing share now comes in liquid form, notably from the US, whose LNG exports to the EU have increased significantly since 2016. In addition to natural gas, 27% of the EU's oil imports and 46% of its coal imports came from Russia (European Commission 2022).

The Role of Azeri Natural Resources: Expectations versus Reality

Azerbaijan is a reliable non-Russian energy provider that has helped Europe diversify its gas supply routes and enhance its gas security via the Southern Gas Corridor (SGC). Some experts compare Azerbaijan's energy contribution to Russia's by analyzing overall EU consumption. As mentioned above, Russia was the most signif-

icant single energy supplier to the EU in 2021 (43%). For its part, Azerbaijan is not necessarily a silver bullet for the EU as a whole. However, it can be argued that Azerbaijan has the potential to make a remarkable energy contribution to specific member states.

The Trans-Adriatic Pipeline (TAP) is the third leg of the SGC, which has been in operation since December 2020. The 878-km-long pipeline transports natural gas from the Shah Deniz field in the Azerbaijani sector of the Caspian Sea to Europe. It connects with the Trans-Anatolian Pipeline (TANAP) at the Turkish–Greek border in Kipoi; crosses Greece, Albania, and the Adriatic Sea; and then comes ashore in Southern Italy.

Currently, TAP's operational capacity is 10 billion cubic metres per annum (bcm/a), of which 8 bcm will be exported to Italy and 1 bcm each to Greece and Bulgaria. According to the EC Quarterly Report (2022), the TAP provided 2.7% of total extra-EU gas imports in the third quarter of 2021.

The TAP is highly significant for energy security in Italy, Greece, and Bulgaria, as these countries rely primarily on Russian gas, making them vulnerable to gas supply cuts and high gas prices imposed by a monopolistic supplier. Azerbaijani gas currently enters Bulgaria at the Kula–Sidirokastro border checkpoint with Greece through an existing line with a capacity of 3.68 bcm of gas per year. This significantly restricts imports of Azerbaijani gas into Bulgaria, as it allows for supplies of only 250–300 million cubic meters per year. Following the launch of the Interconnector Greece Bulgaria (IGB), however, Bulgaria will be able to meet up to 33% of its total gas demand through TAP. It is expected that the interconnector will first guarantee Bulgaria 1 billion cubic meters of gas per year, with a later increase to the design capacity of 3 bcm per year.

According to Borrell, “we are prepared in case diplomacy fails and we are looking at all options. This includes improving our resilience, including by working with partners like the US, Qatar and Azerbaijan, on the issue of gas supply in case Russia decides to reduce or halt deliveries” (EU External Action 2022). Considering this, one may ask what the possibilities are: Is it possible to expand the current capacity? Can Azerbaijan offer extra gas volume?

As mentioned above, TAP is designed to transport 10 bcm due to Europe's historical natural gas demand. With the EU's demand and source preferences changing, Azerbaijan could increase its market share. TAP's capacity could be increased to a throughput of 20 bcm with the addition of two new compressor stations and modification of the existing compressor stations. On April 29, President Aliyev mentioned that Azerbaijan also needs to find a way to increase its supply. To this end, Azerbaijan aims to reduce gas losses internally and increase its renewable energy production and new gas production.

Umid and Absheron (deepwater) are the potential energy fields that could increase Azerbaijan's longer-term gas production. The Umid field currently produces modest volumes, and the State Oil Company of the Azerbaijan Republic (SOCAR) has not yet succeeded in attracting international energy partners for its expansion. Meanwhile, Total estimates that Absheron has 350 bcm of gas and hopes to produce 5 bcm per year. The field is expected to begin production in 2022 and reach 1.5 bcm in the first phase. Further exploration and development of deepwater offshore prospects will support the expansion of gas production. Prospects include further development of discovered resources of non-associated (deep) gas at ACG, Babek (SOCAR-operated), and Shafag Asiman (BP-operated) (Wood Mackenzie, 2020).

However, this requires construction time and long-term energy contracts and strategies. Therefore, these steps cannot be taken in the short term; they will take more than a year to materialize. Deepwater service facility restrictions also mean that it takes some time from discovery to first gas production. Major gas export expansion would further require new gas processing facilities and pipeline extension. According to Saltuk Duzyol, TANAP's CEO, they plan to increase the SGC's capacity to 23.7 bcm in the second phase and then 31 bcm in the third phase, but this will take four to five years due to construction time.

The Azerbaijan–Turkmenistan maritime border could also have a significant impact on the oil and gas industry. The signing of a memorandum of understanding between Azerbaijan and Turkmenistan in January 2021 on joint exploration and development of the Dostluk (Friendship) field (formerly Serdar/Kapaz) is a positive development. Experts believe that the undersea field, which was discovered in 1986, contains natural gas and at least 50 million tons of oil. It also paves the way for developing the Trans-Caspian Gas Pipeline to deliver Turkmen gas to Azerbaijan and Europe.

While there is a certain excitement surrounding the milestone SGC, change will not come overnight. Current geopolitical developments in the South Caucasus suggest that Russia still holds key political tools in its hands—such as the ceasefire it brokered between Armenia and Azerbaijan—which can be triggered if necessary. For example, Armenia attacked the energy pipelines during the 44 days of war in 2020. In this regard, the EU should continue and intensify its peace initiative between Armenia and Azerbaijan and facilitate the agreement between them.

Oil Security and the Role of Azerbaijan

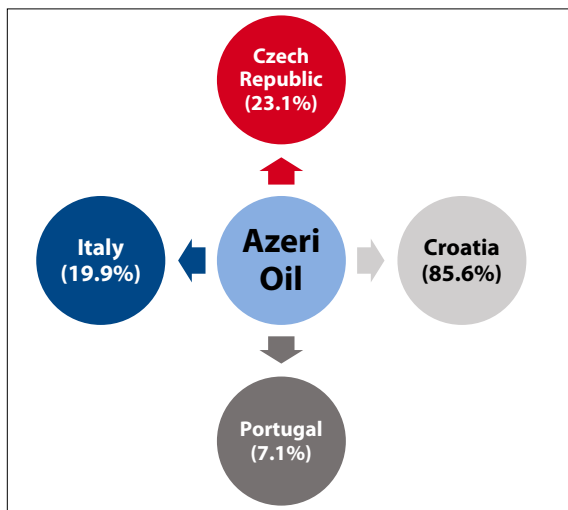
In addition to natural gas, the EU is heavily dependent on imports of crude oil. Similarly to the US and the UK, the EU plans to cut Russia's income by imposing an oil

embargo due to the war. However, this embargo might be a double-edged sword because 27% of the EU's oil imports came from Russia in 2021. This raises the question: Are there enough alternatives?

Azerbaijan is one of the EU's strategic oil partners and currently supplies around 5% of the bloc's oil imports. It transports oil via the Baku–Tbilisi–Ceyhan (BTC) pipeline, which became operational in June 2006. The BTC is a non-Russian pipeline that connects the West to the Caspian Sea. It is especially reliable because it comes from a source outside the Organisation of Petroleum Exporting Countries (OPEC) and is controlled by Western oil firms. It exports up to a million barrels of oil per day, the majority of which is consumed on the European market. It carries oil from the Azeri-Chirag-Deepwater Gunashli (ACG) field in the Caspian Sea and condensates from Shah Deniz across Azerbaijan, Georgia, and Turkey.

According to an IEA report (2021), over 80% of Azerbaijan's crude exports were delivered to destinations in Europe in 2019. During the first quarter of 2020, Azerbaijan exported roughly three million tons of crude oil to Italy, establishing itself as the latter's main crude oil supplier. The Czech Republic, Croatia, and Portugal

Figure 1: European Countries' Dependence on Azeri Oil



Source: Numbers are taken from Eurostat.

gal have also imported crude oil from Azerbaijan. Figure 1 shows these countries' dependence on Azeri oil.

The pipeline also transports crude oil from Turkmenistan and Kazakhstan to EU member states. As such, it can be argued that the BTC has diversified the EU's energy imports and reduced the bloc's reliance on Russia.

However, according to the aforementioned IEA report (2021), Azerbaijan's oil production, which dates to the mid-19th century, has been in decline since 2010. Additionally, Azerbaijan has agreed to several voluntary output cuts in recent years. In December 2016, it joined other non-OPEC producers to co-operate with OPEC in effort to stabilize the oil market. Since then, OPEC and non-OPEC countries have regularly extended their Declaration of Cooperation at biannual OPEC/non-OPEC meetings.

Conclusion

This paper has argued that while Azerbaijan is a reliable, non-Russian energy partner for the EU, its energy resources cannot fully meet the EU's energy demand. Nevertheless, Azeri natural gas resources do play an important role for specific member states (including Italy, Greece, and Bulgaria), while others benefit from its crude oil resources (among them the Czech Republic, Croatia, and Portugal). In the short term, Azerbaijan cannot double its natural gas exports to Europe, as constructing additional infrastructure would take time. Given the current energy crisis, however, the EU will need to formulate a long-term energy (natural gas) plan with Azerbaijan and even with other Caspian Sea countries; this should seek to double the capacity of TAP and explore new sources.

Similar to the BTC oil pipeline, the SGC presents a great opportunity to transport natural gas from Turkmenistan in the future. As such, the EU should also increase its involvement in Central Asia. The EU should not forget about transitioning to renewable energy, but this will take some time and (Azeri) natural gas will play an important role in this process. For Azerbaijan, meanwhile, the current energy crisis presents an opportunity to expand its share of the European natural gas market, attract additional European investors, and improve the country's economic situation.

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Editors: Stephen Aris, Matthias Neumann, Robert Orttung, Jeronim Perović, Heiko Pleines, Hans-Henning Schröder, Aglaya Snetkov

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Editors: Stephen Aris, Matthias Neumann, Robert Orttung, Jeronim Perović, Heiko Pleines, Hans-Henning Schröder, Aglaya Snetkov

Layout: Cengiz Kibaroglu, Matthias Neumann, Michael Clemens

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