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Azerbaijan's growing role in ensuring the energy security of Central European countries

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The Russian Federation's armed attack on Ukraine has changed the perception of energy-exporting countries. In the past, Russia played a key role in providing crude oil and natural gas supplies to Central European countries, however, the war has forced countries in the region to seek alternative suppliers. Under these conditions, Azerbaijan has been growing in importance for many months, with state-owned SOCAR exporting an increasing amount of both crude oil, liquid fuels, and natural gas to the markets of Central European countries.

Crude oil and liquid fuels supplies. Azerbaijan is one of the world's major crude oil producers and exporters, with an average production level of 685,000 barrels per day (about 0.7% of global production) in 2022. Production takes place both onshore and in the Caspian Sea, with the largest field being Azeri-Chirag-Guneshli (ACG), which accounts for about 75% of daily production. Various grades of crude oil are produced in Azerbaijan, including Azeri Light, Azeri BTC, and Azok, among others, which differ in both physical and chemical properties. The crude oil grades produced in the country have — compared to the Urals grade from the Russian Federation, which has dominated in Central Europe for years — a lower sulfur content and a different density, and thus cannot fully serve as a substitute for Russian crude oil. This commodity produced in Azerbaijan is imported by many refineries around the world, and exports to international markets (about 80% of production) are carried out via three pipelines: Baku-Tbilisi-Ceyhan (Azerbaijan-Turkey), Baku-Supsa (Azerbaijan-Georgia), and Baku-Novorossiysk (Azerbaijan-Russia) as well as one rail link: Baku-Batumi (Azerbaijan-Georgia). Thus, crude oil from Azerbaijan is available at both Black Sea (Georgia) and Mediterranean (Turkey) ports.

The Russian-Ukrainian war and the European Union sanctions imposed on the Russian Federation have forced the need for refiners from Central European countries to seek alternative sources of crude oil and liquid fuel supplies. While even before the war Azerbaijan's crude oil imports were mainly carried out by refineries in Czechia (Litvínov) and Romania (Năvodari), in 2022 supplies of this commodity increased both to the aforementioned plants (especially Romanian – by 298%) and to other refineries (including Bratislava in Slovakia, Pančevo in Serbia, and Burgas in Romania). In H1 2023, Azerbaijan's crude oil deliveries also increased markedly to Czechia – by 60% compared to 2022. In addition, despite having permission to import crude oil from the Russian Federation via the Druzhba pipeline, Hungary's MOL has taken some diversification measures, importing crude oil from the Azeri-Chirag-Guneshli field (the company co-owns the field with a 9.57% stake) and processing it at a refinery in Bratislava (Slovakia).

In addition to crude oil imports, liquid fuel deliveries from Azerbaijan to Central European countries are made through product terminals on the Black Sea. At the same time, some of the liquid fuels come from SOCAR's STAR refinery in Izmir, Turkey, and the company also supplies its retail stations in Romania (74) and Ukraine (58) as well as contractors in Bulgaria. Prior to the Russian-Ukrainian war, SOCAR played an important role in the retail fuel market in Ukraine ("IES Commentaries." No. 387).

Natural gas supply. Azerbaijan is also an important partner for European Union countries in terms of natural gas imports. Since 2007, the country has been an exporter of natural gas, made possible as a result of the commissioning of the Shah Deniz field, located on the southern Caspian Sea shelf. Currently, the export of natural





gas is carried out through the South Caucasus Pipeline (SCP), which enables the supply of this commodity from Azerbaijan through Georgia to Turkey, and then through the TANAP (Trans-Anatolian Natural Gas Pipeline) and TAP (Trans Adriatic Pipeline) pipelines to Europe. Thanks to the operation of interconnectors between Greece and Bulgaria, it is possible to supply natural gas to Central European countries. In 2022, Azerbaijan's natural gas production stood at 34.1 bcm, of which a significant part went to Europe. One of the elements of cooperation between the EU and Azerbaijan was the conclusion of a cooperation agreement in July 2022, envisaging a near-doubling of supplies to EU countries – from 12 bcm in 2022 to 20 bcm in 2027.

In Central Europe, Azerbaijan's key partner remains Bulgaria, which has a natural gas supply contract of 1 bcm per year through the IGB pipeline (Greece-Bulgaria interconnector). The contract covers more than 30% of the country's natural gas needs. At the same time, however, Bulgargaz often buys natural gas on daily and monthly nominations, with the result that in some periods Azerbaijani natural gas covers up to 75% of consumption. Given Bulgaria's importance to the Central European market, SOCAR opened its headquarters in Sofia in late April 2023. An element of increasing natural gas supplies to Central Europe through Bulgaria is the Solidarity Ring (STRING) gas corridor initiative. At the end of April 2023, a memorandum of cooperation between energy companies from Azerbaijan (SOCAR), Bulgaria (Bulgartransgaz), Romania (Transgaz), Hungary (FGSZ), and Slovakia (Eustream) on the construction of this corridor was signed ("Comments of the IEA," No. 864).

Securing natural gas supplies from Azerbaijan is also increasingly important for Hungary and Serbia. Both countries continue to import natural gas from the Russian Federation, however, they are considering the possibility of diversifying the sources and directions of natural gas supplies. In this context, talks are underway between Hungary and Azerbaijan on the supply of this commodity (100 mcm) and the possibility of its storage (50 mcm) until the end of 2023. Serbia is also in dialogue concerning the purchase of natural gas (300-400 mcm) from Azerbaijan. Deliveries would be made through the Serbia-Bulgaria (Niš-Dimitrovgrad) interconnector with a capacity of 1.8 bcm per year ("IES Commentaries," No. 915).

Conclusions:

- Azerbaijan plays a limited role in terms of crude oil supply to refineries in Central European countries, which is due to the specifics of the plants operating here (concentration on grades comparable to Urals). Under these conditions, it can still be predicted that mainly crude oil with physical and chemical properties similar to the Urals grade (e.g., crude oil from Saudi Arabia, Iraq, and Iran) can be a suitable substitute for crude oil from the Russian Federation.
- For the energy security of Central European countries, the importance of Azerbaijan stems primarily from the country's ability to import natural gas. Before the Russian-Ukrainian war, many countries in the region depended on imports of the resource from the Russian Federation. The sanctions introduced and efforts to change the structure of natural gas supplies mean that in addition to importing natural gas in liquefied form (LNG), Azerbaijan can play a very important role in ensuring energy security. Currently, there is adequate infrastructure (the IGB interconnector), or projects are being implemented (the Serbia-Bulgaria interconnector, which is under construction), to enable supplies from this direction.
- A key aspect of the implementation of the cooperation agreement with the EU will be an adequate increase in natural gas production in Azerbaijan itself, guaranteeing a supply of 20 bcm per year to the community countries. Importantly, the increase in Azerbaijan's natural gas exports to Europe will require first and foremost investment in field development, which may prove to be a long-term process. In this regard, it is planned to start producing natural gas from fields and offshore areas already identified, namely Shafag-Asiman, SWAP (Shallow Water Absheron Peninsula), Dostluk, or Shah Deniz Phase III; however, it takes at least 4-5 years from the final investment decision (FID) to the development of the field. Importantly, in the last three aforementioned projects, Russia's Lukoil owns its shares, which may block the implementation of investments. At the same time, increasing supply through the TANAP and then TAP





pipelines will require significant financial resources, including for increasing transmission capacity (e.g., compressor stations), and perhaps even for the construction of additional parts of these pipelines.