POLSKI INSTYTUT SPRAW MIĘDZYNARODOWYCH
THE POLISH INSTITUTE OF INTERNATIONAL AFFAIRS

NO. 36 (2344), 4 MARCH 2024 © PISM

BULLETIN

EU Sanctions Targeting Russian LPG Raise Risk of Market Turmoil

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The import ban on Russian LPG into the Union in December 2024 as part of the 12th package of EU sanctions will reduce Russia's budget revenues, hampering financing of the war against Ukraine. However, it will strongly affect Central European markets, causing fuel price increases and significantly reducing the availability of LPG. The effects are most likely to be felt by Ukraine, which consumes LPG mainly for municipal and military purposes. It is in the interest of Poland, the largest regional consumer and re-exporter of LPG, to develop its receiving and storage infrastructure to ensure supply continuity from other directions.

LPG Use and Market Characteristics. Liquefied petroleum gas (LPG) is a mixture of propane and butane prepared by refining petroleum or extracting natural gas (i.e., methane, later liquefied into LNG). It is used in the industrial (mainly chemical), agricultural (grain dryers), municipal (e.g., heating and cooking), and transport (autogas) sectors. There is a structural difference in LPG consumption between Western and Central European countries. In Poland, Bulgaria, Romania, Ukraine, and the Baltic States, among others, the most significant consumption of LPG is in the transport and municipal sectors, covering more than 80% of consumption. Meanwhile, in Western Europe (e.g., France, Germany, the Netherlands), the largest consumption is in the industrial and municipal sectors. Import structures are also different, with Central European markets being infrastructurally dependent on rail supply from Russia and other EU countries importing LPG by sea from the Middle East, North Africa, or the United States. LPG consumption in Europe is growing steadily—the largest consumers are Turkey, Germany, and Italy, with Poland in 7th position.

Poland's demand for LPG is about 2.5 million tonnes per year, with 75% consumed by transport (3 million vehicles run on autogas), more than 10% by the municipal sector, and the rest by the industrial and agricultural sectors. In 2022, about 45% of imports came from Russia, 25% from Sweden, and 20% met by domestic production. Poland received two-thirds of the Russian LPG exports to the EU (about 1.2 million tonnes worth €730 million; Latvia and Bulgaria were second and third, respectively). LPG sourced from Russia is the cheapest on the market, which is due, among other things, to the specifics of processing and cheap rail transport. In recent years, however, there has been a growing diversification of import directions and decreased imports from Russia. Deliveries via sea terminals (Gdansk, Gdynia, Szczecin) with a total capacity of around 1 million tonnes per year can secure up to half of domestic consumption. Overland imports from ports in Belgium, the Netherlands, and Germany are 20% more expensive and volumes are relatively low due to price and rail infrastructure constraints. The sector is also confronted with low availability of storage space (only 0.1 million tonnes) serving mainly logistical needs.

As a result of Russia's full-scale war against Ukraine and the energy crisis, the regional LPG market has been transformed, with increasing consumption (particularly of autogas and municipal purposes) in all countries. LPG is increasingly used in individual heating as a fuel that is less carbon-intensive and more accessible (ease of use and lower cost) than coal. The growing interest in LPG as a substitute for natural gas has been signalled by European industry. Poland, followed by Romania and Germany, has become the most crucial re-exporter of LPG to Ukraine, estimated at around 0.7 million tonnes per year. Available data indicate that LPG is an important element of the country's energy security, especially during the heating season. Ukrainian consumption, due to the characteristics of LPG (low cost, ease of transport, and dispersed structure), includes municipal, military, and transport applications.

Adoption of Sanctions on Russian LPG. On 19 December 2023, the EU adopted the 12th package of sanctions targeting Russia, which, among other things, banned LPG imports. Russia is the fourth-largest producer of LPG in the world, a by-product of natural gas extraction and petroleum product processing. While it is also consumed internally, surpluses have been exported to Central European countries, mainly Poland, since the 1990s. According to available data, Russian LPG production is about 15 million tonnes per year, internal consumption is growing and is estimated at about 11 million tonnes, and exports are about 4 million tonnes. The volume exported to EU countries has regularly decreased, amounting to about 1.7 million tonnes most recently, with the remaining surplus sold to China and Turkey. Private operators carry out exports and, due to their relatively low revenues, are of little importance to the central authorities, which is why there has not yet been a cut-off of LPG supplies to the EU (unlike for natural gas).

The sanctions will reduce Russia's influence on the EU energy market and hit Russia's revenues from LPG exports to the EU, which amounted to €1.1 billion in 2022. The restrictions are subject to a transition period that allows LPG to be imported from Russia until 20 December this year under contracts concluded before the package was adopted. At the request of Hungary and Slovakia, they do not apply to all types (blends) of LPG, but cover 90% of LPG imported from Russia into Poland.

Consequences for Poland and the Region. The sanctions introduced will have a negative impact on regional fuel and LPG markets. According to estimates by industry organisations, they will result in limited availability of LPG and a marked increase in LPG prices (15-40%) for other sectors (including households and agriculture). Despite this, the region's countries are pushing for the sanctions on the grounds that they are already cut off from Russian hydrocarbons and will further cut revenue from their sale for the Russian budget. In the short term, there may be a risk of destabilisation of the fuel market, which, with increased demand for petrol and diesel, will bring an increase in prices, increasing inflationary pressure. Due to the characteristics of the market—high fragmentation and competition—the effects of the turbulence will be felt most strongly by small and medium-sized businesses at risk of bankruptcy. The effects will also affect the poorer part of the population, particularly those living in rural areas for whom the increase in the price of basic municipal and transport fuel will intensify fuel poverty.

In addition to Poland, Ukraine may be significantly affected due to its high consumption and limited opportunities for imports from alternative directions. Ukraine's peak demand for LPG falls during the heating season, which, coinciding with the timing of the entry into force of sanctions, may pose a threat to the military and civilian population (causing further deprivation). In other countries of the region, LPG shortages may have a milder effect than in Poland, primarily resulting in price increases and reduced re-exports of the fuel to Ukraine. In Western Europe, in addition to price increases, there will be additional pressure on rail and port infrastructure.

Price increases and market destabilisation may create a risk of circumvention of sanctions. This applies in particular to LPG from Kazakhstan, which may be blended with Russian crude or transported as Kazakh (according to the Ukrainian trade press, this is likely to be the case for some of the LPG currently imported into Ukraine). There is a risk of Russian LPG exports to the EU via the Black Sea through intermediaries, for example, from the Georgian port of Poti. A significant increase in exports of non-sanctioned blends is also possible.

The risk of Russia stopping or restricting LPG supplies to the EU in advance because of the lack of importance of the market, is low. However, it could materialise if the Russian authorities attempt to destabilise neighbouring countries by combining the suspension of LPG supplies with disinformation activities. This could result in consumer panic, triggering a fuel crisis in regional markets. Hence, communication policy is of high importance to maintain fuel security.

Recommendations. Medium-term stability of the LPG market could be ensured by the expansion of receiving infrastructure, particularly marine terminals, allowing diversification of sources. The fastest available option would be to adapt to commercial deliveries and expand the terminal in Police (owned by Grupa Azoty), which is the only one with the technical capacity to receive the largest units, including transoceanic units from the U.S. An option for diversification of supply directions is to intensify rail and road imports from other countries in the region (Romania, Bulgaria, Lithuania), but the poor state and organisation of rail transport and the poor state of road infrastructure in the region remain a challenge.

The expansion of the country's storage infrastructure, both state-owned and dispersed, may also be an important measure. The implementation of these actions, before the sanctions come into full force, would be helped by simplifying and speeding up administrative procedures (including environmental decisions). In the long term, investment in Bio LPG, which requires the development of predictable climate policy and a stable legal environment at the EU level, will be essential.