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Imports of commodities and petroleum products from the US to Poland and the Baltic States

The Russian Federation's aggression toward Ukraine has led Poland, Lithuania, Latvia, and Estonia to cease the importation of commodities and petroleum products from Russia. This has resulted in a gap that has been filled by imports from other sources, including the United States of America. Collaboration with the US influences energy security and holds political significance due to the nation's growing presence in the region. In the new wartime context, the energy significance of the US for Poland and the Baltic States primarily pertains to the supply of diesel and natural gas. Imports of crude oil are less significant due to the particular grades available on the international market from this country.

The role of the US in crude oil supplies to Poland and the Baltic States. The US stands as one of the world's largest crude oil producers. Until 1975, the export of domestically produced crude oil was prohibited, as the nation was a net importer of the commodity. It wasn't until the appearance of technological advancements around 2005, which involved the adoption of hydraulic fracturing and horizontal drilling techniques, that crude oil production surged, prompting a restructuring of the domestic energy sector. Consequently, the ban on crude oil exports was lifted in 2015, enabling refineries across the globe, including those in Central European nations, to access American crude oil. The volume of imports over the years has been shaped by the characteristics of various crude oil grades available in the international market from the US, such as Eagle Ford or Bakken, among others. These grades are typically lighter with a lower sulphur content, yielding more gasoline fractions rather than diesel. The physicochemical characteristics of these particular grades have long deterred refineries in Poland and Lithuania from importing them (there are no refineries operating in the other Baltic States). Instead, these plants have focused on maximising the import of commodities predominately suitable for diesel production (including Urals from Russia). This strategy aims to optimise the utilisation of existing refining facilities and to produce high-margin petroleum products, with diesel being in higher demand than gasoline in Europe. Prior to the outbreak of the conflict, refineries in Plock, Gdansk, and Mažeikiai only sporadically purchased cargoes from the US. However, as a result of the war in Ukraine, the gap left by Russian crude oil has been filled with supplies from the US as well. Consequently, there was a significant surge in US crude oil imports to refineries in Poland (up to 34 times) and Lithuania (7 times) in 2023 compared to 2021. During the same period, the proportion of US crude oil supplies to Poland in the total sea import basket rose from 0.3% to 5%. Meanwhile, for Lithuania, the share increased from 3% in 2021 to 20% in 2023.

Petroleum product imports to Poland and the Baltic States. The Russian Federation was one of the major exporters of diesel to European markets, accounting for approximately 40% of sea deliveries to European Union countries. The conflict in Ukraine prompted Poland and the Baltic States to alter their diesel supply routes. Although sanctions on sea deliveries of petroleum products were not imposed until February 2023, Lithuania and Estonia had already unilaterally halted imports of petroleum products from Russia by 2022. Subsequently, diesel supplies from Russia to Poland and Latvia ceased in 2023. As a consequence of the Ukrainian conflict, diesel shipments from the US also extended their reach to this part of Europe. In 2021, neither Poland nor the other Baltic States imported diesel from the US, but there was a notable increase in shipments by 2022-2023. By 2023, imports from this direction to Poland had surged sevenfold, with the share in total supplies rising from 2% to 9%. In 2022, the Baltic States had no supply from this direction, but by 2023, it already constituted 21% of imports to Lithuania, 14% to Latvia, and 3% to Estonia. Depending on the development of petroleum product availability on the international market, influenced by seasonal maintenance work at refineries worldwide

(in spring or autumn), as well as potential attacks by Ukraine's armed forces on refineries in the Russian Federation, it is anticipated that the Baltic States will continue to import diesel from the US. Simultaneously, ongoing modernisation work at the Mažeikiai refinery ([“IEŚ Commentaries”, no. 458](#)) may also intermittently affect petroleum product availability on the regional market, necessitating increased imports, including from the US.

Availability of US natural gas in Poland, Lithuania, Latvia and Estonia. For many years, the Russian Federation has been the largest supplier of natural gas to European Union countries, holding a share of about 37% in 2021. This supply was facilitated through various channels, including pipelines and liquefied natural gas (LNG) shipments by sea. However, the conflict in Ukraine has led to a decrease in the share of supplies from this direction to approximately 9% in 2022. Nonetheless, it rebounded in 2023 to around 15%, owing to the absence of sanctions on LNG natural gas supplies from Russia. Consequently, there was a notable increase in sea-based deliveries from Russia to countries such as Belgium, France, the Netherlands, Spain, and Portugal in 2023.

Poland and the Baltic States boast two regasification terminals capable of receiving natural gas in the form of LNG – located in Świnoujście (Poland) and Klaipeda (Lithuania). These countries were significant importers of natural gas from the Russian Federation prior to the conflict, thereby being partially reliant on this source. These imports were facilitated both by land and by sea routes. However, the conflict in Ukraine has had a profound impact on the natural gas market in these nations, necessitating the cessation of natural gas supplies ([“IEŚ Commentaries”, no. 587](#)). Consequently, this gap was filled with supplies from alternative sources, including natural gas imports from the US. In 2022, there was a notable surge in crude supplies from the US to Poland by approximately 120% compared to 2021, while supplies to Lithuania increased by 130%. Notably, in May 2022, the first-ever deliveries of LNG from the US to Poland via the Klaipeda LNG terminal occurred, facilitated by imports via the GIPL pipeline linking the two countries.

In 2023, as the market situation stabilised, there was a decline in natural gas demand in the Baltic States ([“IEŚ Commentaries”, no. 1071](#)). During this period, imports of LNG to Poland increased by 13%, while imports to Lithuania decreased by 25%. The high liquidity of the natural gas market allows tankers from various countries to dock in the Baltics, with the security of supply primarily influenced by long-term contracts between suppliers and customers. In Poland, ORLEN (formerly PGNiG) has entered into numerous natural gas import contracts over the years. Conversely, supplies to the Baltic States via the Klaipeda LNG terminal are primarily based on short-term (spot) contracts.

Conclusions

- The US stands as one of the largest producers and exporters of crude oil globally. The availability of this crude oil in Poland and Lithuania is primarily influenced by the types of grades traded, as crude oil from the US is predominantly supplied for blending with crude oil from other sources. This notably includes supplies from Saudi Arabia (which accounted for 36% of total imports in 2023 to Poland and 39% to Lithuania) and Norway (representing 33% of imports to Poland and 18% to Lithuania in 2023). Consequently, shipments from the US will not dominate future supplies but will rather serve a complementary role.
- In the aftermath of the diesel shortage resulting from sanctions imposed on the Russian Federation following its aggression toward Ukraine, alternative suppliers, including the US, stepped in to fill the gap. Poland and Latvia's decision to cease importing this product by sea from Russia as late as 2023 underscores the significant role Russia has historically played in the energy market of regional countries, highlighting the challenges associated with shifting supply directions. The availability of diesel from the US in Poland and the Baltic States may further increase due to the anticipated lower availability of petroleum products from Russia on the global market, a consequence of potential attacks on refineries by Ukraine.
- Due to the available import capacities, LNG supplies from the US were exclusively received by Poland (Świnoujście) and Lithuania (Klaipeda). However, it's worth noting that other Baltic States also

indirectly benefited from these natural gas supplies. The impact of these supplies from the US on the energy security of countries in the region has varied. Nonetheless, for these nations, imports of natural gas from the US represent a significant factor in enhancing both energy security and mutual political and business relations.