

EXPANSION OF THE OIL TERMINAL IN GDAŃSK – OUTLOOK AND BENEFITS FOR THE OIL SECURITY OF POLAND

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ABSTRACT

The paper shows the role of and the outlooks for the extension of Naftoport Oil Terminal in Gdańsk, Poland as well as the impact of the ongoing development on oil import options and, as a result, on the oil security of the country. The expansion of the oil terminal in Gdańsk is an extremely important project and the largest investment of this type in Poland. Key elements of the development of the terminal are: new transshipment stations and their enhancement, new oil tanks, the construction of the second oil pipeline running to the center of Poland, the development of crude oil technological installations, electricity grid, water and foam networks, sanitary networks, roads, and automation systems. The expansion of Naftoport significantly increases Poland's oil security as well as import capabilities of the country, ensuring continuous oil supplies to Polish refineries, often at a lower price.

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INTRODUCTION

Naftoport Oil Terminal in Gdańsk is one of the most important initiatives for the Polish energy sector. The facility ensures crude oil import from various sources and, as a result, it increases Poland's energy security and makes the country independent from the crude oil supply from Russia.

The ongoing extension of Naftoport is a key project for oil security of Poland, enhancing the country's independence in this area. It is also the largest investment of this type in the country.

Poland has been trying for years to extend oil transmission and reception infrastructure as well as to conclude more oil delivery contracts. As a result, the raw material is delivered to Poland from many countries. Nevertheless, Poland still seeks to further diversify sources and directions of oil supply.

RESEARCH QUESTIONS AND METHODS

To research the role and benefits of the extended oil terminal and the outlooks for it, the following question should be considered: what is the planned course of the further development of the oil terminal? Moreover, it is also worth asking how the extension of the terminal will increase the options of oil import and, as a result, the oil security of Poland.

The article presents the role of Naftoport and the expansion of the terminal. The prognostic method has been applied to predict the possible results of the development. The comparative method and praxeological approach has also been sporadically used.

THE IMPORTANCE OF CRUDE OIL

Oil is currently one of the most important energy sources with strategic significance for the economies of many countries in the world. Despite many ideas to create an alternative for oil (e.g. the promotion of electric cars), it is still difficult to replace it with another energy carrier. There are many types of crude oil. The raw material extracted in Russia differs from the raw material coming from other places in the world, in particular in that

it is heavy and sour. For oil consumers it is essential to have continuous oil supply. Poland seeks to diversify supply sources because it decreases the risk related to sudden reduction or even the cut-off of raw material supplies.

The global oil market is highly competitive. Raw material deposits in the world are quite unevenly distributed, hence countries are either exporters or importers, but this changes, as in case of natural gas. Raw material suppliers fight for sales markets and they want to ensure best ways of raw material delivery (here geopolitical conditions and development of supply infrastructure are primarily important). Basically, there are two ways to transport oil: using tankers and pipelines. The pipelines are not that critical for crude oil transport as it seems. Often, it is more important to be able to buy a given amount of raw material on a regular basis, which could be transported using gas carriers. Shipping by sea is also cheaper and more environment friendly.

Poland does not have its own large oil deposits and only small amount of this raw material is extracted from under the sea bed in the Baltic Sea area. Hence, the Polish crude oil market is mainly based on imports of raw material from abroad, and the Russian Federation is a key importer in the region. Russia supplies the largest amount of oil to Poland, but its role as an importer has become less and less significant. In addition to oil delivery from Russia, Poland also imports this raw material from other directions, in particular from the North Sea area, Saudi Arabia, and the US. It is not feasible currently for alternative suppliers (such as Azerbaijan) to become as important as Russia. Moreover, Polish refineries must be adapted to process oil imported from Arab countries, which generates additional costs. Oil imports from other countries could compete with Russian supplies, but profitability remains the key problem. Technological development makes it possible, however, to import more and more volumes of raw material also from other countries in the world.

Key factor determining from whom to purchase the raw material is its price. If import from the East proves to be cheaper than supplies by sea from the West, the amount of raw material imported from Russia may remain high. Additionally, the interdependence between Poland and Russia makes the unexpected cut-off of oil supply (likewise to natural gas supply) not a profitable option for the Russian Federation. Nevertheless, Poland seeks to become independent from Russia and its supplies, by supporting construction of pipelines along the North-South line (the same as in the

case of natural gas pipelines), as opposed to those connecting the East with the West.

One of such project is the extension of the oil pipeline from Brody, Ukraine to Poland or the development of the third branch of the Druzhba pipeline. However, the further development of Naftoport in Gdańsk, which gives the largest import opportunities, is of fundamental importance.

IMPORT OF CRUDE OIL TO POLAND

The oil terminal Naftoport is the most significant alternative way of supplying Polish refineries with crude oil, next to pipeline connections, e.g. the bidirectional Gdańsk–Płock oil pipeline.¹ This pipeline enables annual transfer of 27 million tonnes of crude oil from Płock to Gdańsk and 30 million tonnes from Gdańsk to Płock. There are plans to build a second line of the pipeline along the existing route from the base in Miszewko Strzałkowskie to the station in Gdańsk. The pipeline is planned to work bi-directionally, independent of the first line. From the technical perspective, the pipeline will allow the transmission of approximately 25 million tonnes of oil per year from Miszewko Strzałkowskie to Gdańsk; the second line of the Pomeranian Pipeline is planned to be completed by the end of 2023.²

PERN S.A. company (Przedsiębiorstwo Eksploatacji Rurociągów Naftowych – Oil Pipeline Operation Company)³ is one of leading companies for oil transportation and storage in Poland as well as in the region, and manages a network of oil and gas pipelines. PERN S.A. has a sea transshipment terminal with an annual capacity of 40 million tonnes of crude oil and 4 million tonnes of fuels, which manages:

¹ A. Wieloński, J. Machowski, *Procesy transformacji wybranych przemysłów w Polsce i na świecie*, "Prace Komisji Geografii Przemysłu", 2008, no. 10, p. 87.

² R. Kiewlicz, *Naftoport: rekordowe przeladunki*, "Trójmiasto.pl", 10 July 2019, <https://biznes.trojmiasto.pl/Naftoport-z-rekordowymi-przeladunkami-n136113.html> (accessed: 3.10.2019).

³ The strategic objective of PERN Capital Group is to enhance its position in the field of crude oil storage as well as transport and further development of fuels-related operations, including but not limited to expanding storage capacities and pipeline networks. PERN Capital Group includes oil sector companies providing logistic services in the field of crude oil and liquid fuel supply. Next to PERN S.A., the following companies are affiliated with PERN Capital Group: NAFTOPOINT Sp. z o.o., Naftoserwis Sp. z o.o., Naftor Sp. z o.o., CDRiA Sp. z o.o., Siarkopol Gdańsk S.A. and Sarmatia Sp. z o.o. See *O nas*, "PERN", <https://pern.pl/o-nas> (accessed: 31.01.2020).

- a) transport and storage of crude oil and fuels, as well as
- b) transshipment of fuels and their storage for entities that deal with trade and distribution of fuels.⁴

Polish refineries process crude oil from various parts of the world and of different types. Many refineries would face significant challenges when processing such diverse raw material. PERN, however, is able to ensure transport of raw material to the refineries, including crude oil coming from various sources. PERN warehouses have about 3.5 million m³ storage capacity for crude oil and about 1.8 million m³ for liquid fuels. They store gasoline, diesel, light fuel oil, biocomponents and aviation fuel for current market supply as well as fuel emergency reserves.⁵ New tanks located off the coast of the Baltic Sea will enable more efficient handling of tankers entering Naftoport. Irrespective the type of oil reaching Poland, PERN is able to ensure its flexible transfer to the refineries and maintain the quality of the transported raw material. The existing tanks are designed for storage of various types of crude oil, which allows to either separate them or blend them, depending on customer needs. Naftoport is the only facility of that kind in Poland, operating as a maritime hub for raw materials.⁶ The terminal has large storage capacity; however, the amount of oil delivered by sea increases and it is required to absorb more volumes. The extension of Naftoport brings not only obvious benefits for the enterprise itself, but also increases Poland's oil security.

The Baltic Sea has become one of the most important areas for oil transport, with an upward trend. The Committee of Senior Officials of the Council of the Baltic Sea States pointed out as early as at the meeting in March 2003 in Brussels that the export of Russian oil through the Baltic ports has increased. During this event the participants raised concerns, among others, about oil transport by sea. The European Union experts, taking into account the increase in oil transport on EU waters, decided

⁴ *O nas*, "PERN", *op. cit.*

⁵ PERN/Polska Agencja Prasowa, Rusza przetarg na nowe zbiorniki terminala naftowego w Gdańsku, "Biznes Alert", 9 October 2018, <https://biznesalert.pl/pern-terminal-naftowy-nowe-zbiorniki> (accessed: 6.02.2020).

⁶ PAP, *PERN podpisał z konsorcjum Naftoremont–Naftobudowa umowę na rozbudowę TNG*, "Pulsbiznesu.pl", 16 January 2019, <https://www.pb.pl/pern-podpisał-z-konsorcjum-naftoremont-naftobudowa-umowe-na-rozbudowe-tng-950690> (accessed: 22.11.2019).

that priority should be given to oil pipelines rather than tankers due to economic viability and better environmental protection.⁷

THE ROLE OF THE TERMINAL

The terminal in Gdańsk secures the continued supply of crude oil to Polish refineries; however, it needs to be one type of raw material. Processing various type of crude oil is more problematic, but manageable. The terminal in Gdańsk gives Polish refineries security of uninterrupted oil delivery, provided, however, that the supply covers only one crude oil type.⁸ Naftoport oil terminal and the supporting infrastructure are tools that have a stabilizing impact on liquid fuel prices in Poland; they contribute to increasing the country's energy security, which is one of the most important targets of the government. The extension of the terminal stimulates economic activity on the Eastern part of the Polish coast, which translates into the economic growth of the Pomeranian region.⁹

Naftoport's transshipment stations are located in the closed basins of the Fuel Base in the Northern Port in Gdańsk. They are shielded by breakwaters and protected from flooding by a permanent and a pneumatic dam. The fairwater is 17.5 m deep, 350 m wide and 7.2 km long. The Fuel Base can be reached by tankers with under 300 thousand tonnes deadweight, with 15 meters draft and 340 meters length. One of the largest and most modern tugboats in the Baltic Sea introduces a ship into the port.¹⁰

In February 2014 the construction project for the oil terminal in Gdańsk was approved and the building permit was issued. The terminal is the first maritime hub in Poland; it had six tanks with a total capacity of 375,000 m³ before extension¹¹ and even then it significantly increased the oil security of the state. Naftoport ensures much easier access to the raw material and

⁷ A. Wasilewski, *Ropociąg Odessa-Brody-Płock i Gazociąg Bałtycki*, "Polityka Energetyczna", 2005, vol. 8, no. 1, p. 66.

⁸ J. Kowalski, J. Kozera, *Mapa zagrożeń bezpieczeństwa energetycznego RP w sektorach ropy naftowej i gazu ziemnego*, "Bezpieczeństwo Narodowe", 2009, no. 9–10, p. 317.

⁹ P. Apanowicz, *Budowa terminalu PERN zaawansowana w 85 proc.*, "Wnp.pl", 17 September 2015, <https://www.wnp.pl/nafta/budowa-terminalu-pern-zaawansowana-w-85-proc,257641.html> (accessed: 17.02.2020).

¹⁰ *Podstawowe parametry portu*, "Naftoport", n.d., http://www.naftoport.pl/index7f3f.html?option=com_content&view=article&id=97&Itemid=105 (accessed: 25.02.2019).

¹¹ *Rusza rozbudowa terminala naftowego w Gdańsku*, "wGospodarce.pl", 6 February 2019, <http://wgospodarce.pl/informacje/59758-rusza-rozbudowa-terminala-naftowego-w-gdansk> (accessed: 6.02.2020).

secures timely delivery to the refineries in case supplies from Russia would be suspended. Import from the USA could be regarded as an opportunity to increase the diversification of directions and sources of crude oil supplies to Poland. Crude oil from shale rock could continuously be delivered by sea from North America to Europe, including Poland. However, the shallow Danish Straits can limit the supply of raw material by sea as the ships with high tonnage, in particular Very Large Crude Carriers (VLCC), cannot easily pass through them. Frequent opinions highlighting the significance of oil supplies from the West proved to be too optimistic and the role of this import route has been incorrectly assessed.¹²

The unload of 90,000 tonnes of American crude oil was an important event. This was the first load of this raw material that went to Poland from the United States after the US resumed its export.¹³ Russia remains to be a significant oil supplier to Poland; however, Polish decision-makers, driven by political prejudice, ignored both the stability of cooperation with Russia and the unprofitability and challenges related to alternative sources of imports. At the same time, however, there were further projects to expand supply sources, as well as plans and real actions undertaken to increase diversification. In particular, the Euro-Asian Oil Transportation Corridor was one of the plans that could not be implemented and created a significant challenge for the diversification initiative. In the past, the supply of contaminated oil from Russia, which was sent via pipelines to, inter alia, Central and Eastern Europe, turned out to be a significant problem. At that time Gdańsk Naftoport proved to be helpful ensuring continuous oil delivery. The ongoing expansion of the terminal will contribute to further development of alternative ways of oil import.

INCREASE IN NAFTOPORT'S TRANSSHIPMENT CAPACITY

In the second decade of the 21st century, the infrastructure of Naftoport was further developed and the strategic importance of the facility increased. In 2011, Naftoport Fuel Depot serviced over 300 tankers, including almost 50 vessels with a tonnage exceeding 100,000 tonnes.¹⁴ In 2012, the facility handled over 220 tankers, including over 70 vessels with a tonnage exceeding

¹² Ł. Wojcieszak, *Bezpieczeństwo naftowe Polski – problem dywersyfikacji*, Przemysł 2015, pp. 267–268.

¹³ *Wydarzenia*, “Naftoport”, n.d., http://www.naftoport.pl/index781e.html?option=com_content&view=category&layout=blog&id=44&Itemid=143 (accessed: 3.03.2020).

¹⁴ *Ibidem*.

80,000 tonnes and over 40 with cargo-carrying capacity of 15,000–80,000 tonnes. Naftoport transshipped 10.3 million tonnes of liquid fuels, 74% of which was crude oil and the rest were petroleum products. In 2013 Naftoport managed to handle over 280 tankers including over 80 vessels with a tonnage exceeding 80,000 tonnes. The same year the facility transshipped 10.6 million tonnes of liquid fuels; 76% was crude oil and petroleum products accounted for the rest.¹⁵

In 2014, 317 tankers were handled at Naftoport transshipment terminal, including over 80 vessels with a tonnage exceeding 80,000 tonnes. Naftoport transshipped 12.1 million tonnes of liquid cargo, 73% was crude oil, the rest were petroleum products (liquid fuels). In the same year, PERN and the Italian group Eni Trading & Shipping signed a long-term contract, covering, among other things, transshipment of raw material. In 2015, Naftoport transshipment terminal serviced 366 tankers, including 106 vessels with a tonnage exceeding 80,000 tonnes. The facility transshipped 14,281 million tonnes of liquid cargo with crude oil making up 75% and liquid fuel accounting for the remaining 25%. In 2016, Naftoport transshipment terminal serviced 313 tankers, including 84 vessels with a tonnage exceeding 80,000. 76% of the transferred liquid cargo constituted crude oil and 24% liquid fuel.¹⁶ In 2016, Naftoport transshipped just over 12.2 million tonnes of cargo and the fuel business of the terminal reached almost 3 million tonnes. Crude oil was the most frequently transferred cargo, ocean tankers supplied the raw material to Gdańsk and it was transmitted further to domestic and German refineries by a pipelines system. The transshipment of oil which is then further transferred to other countries becomes more and more important for Naftoport. The facility also handles liquid fuels exported by sea by LOTOS S.A. Group.¹⁷

Naftoport ensures oil imports to LOTOS and ORLEN refineries in Poland, as well as to German facilities: refineries near Schwedt and MTR refinery located near Leipzig. Naftoport also handles the transit of Russian oil to trading companies operating on the fuel market and is able to handle virtually any tanker sailing on the Baltic Sea. Most of the oil reaches Gdańsk

¹⁵ *Wydarzenia...*, *op. cit.*, (accessed: 13.11.2019).

¹⁶ *Ibidem*.

¹⁷ M. Leżucha, *Rośnie znaczenie gdańskiego gazoportu. Rozmowa z Dariuszem Kobiereckim, Prezesem Zarządu Przedsiębiorstwa Przetadunku Paliw Płynnych Naftoport Sp. z o.o.*, "Najwyższa Jakość QI", 2017, <http://najwyzszajakoscqi.pl/index.php/artykuly/138-rosnie-znaczenie-gdanskiego-naftoportu> (accessed: 20.02.2020).

on smaller class tankers of type Aframax and Suezmax with a deadweight between 80,000 and 120,000 tonnes, and liquid fuels are transported on much smaller units, with a tonnage of 5000 to 40,000 tonnes. The terminal also unloads the Baltic offshore oil, transported on vessels with a carrying capacity of 5000 to 25,000 tonnes. It is worth noting that Naftoport has already been nominated for the International Quality Award in the Highest Quality QI Program.¹⁸

According to the then president of the company, Andrzej Brzózka, PERN Group planned high volume investments to extend the Naftoport; in 2019 it was PLN 19.9 million, i.e. more than twice as much as in the previous year (it was PLN 9.2 million), as well as much more than in 2017 (7.8 million PLN) and 2016 (6.4 million PLN). The then head of Naftoport emphasized that volumes of transshipments were continuously growing.¹⁹ In 2018 Naftoport managed to achieve the turnover which was highest both in the history of its operations by that time and in the history of the operations of the entire Liquid Fuels Reload Base at the Port of Gdansk previous to that date, transshipping altogether 14.92 million tonnes of crude oil and liquid fuels. This represented a 20% increase in the transshipped volumes compared to 2017.²⁰

By mid-2019, Naftoport serviced 13 more tankers than during same period in 2018, and only in May 2019 2.2 million tonnes of oil were transshipped. In total, in the first half of 2019, the company received 8.3 million tonnes of crude oil, i.e. nearly 30% more than in the same period of the previous year. The turnover increased due to the suspension of crude oil supplies from Russia caused by the pollution of the Druzhba pipeline. Lotos and PKN Orlen pipelines decided to purchase the raw material and import it by sea when the level of pollution impacted the operation of the refinery (about 690 thousand tonnes of oil contaminated with chloride)

¹⁸ *Ibidem*.

¹⁹ *Naftoport przeznaczy prawie 20 mln zł na inwestycje w 2019 roku*, "Money.pl", 9 July 2019, <https://www.money.pl/gielda/naftoport-przeznaczy-prawie-20-mln-zl-na-inwestycje-w-2019-roku-6400684538848897a.html> (accessed: 14.10.2019).

²⁰ *Wydarzenia...*, *op. cit.* It is also worth pointing out that within nine months of 2018, Naftoport transshipped 11.2 million tonnes of liquid cargo as compared to 8.6 million tonnes in 2017. 9.1 million tonnes of it was crude oil and 2.1 million tonnes were petroleum products. P. Apanowicz, *To już niemal pewne. Naftoport zanotuje historyczny wynik*, "Wnp.pl", 6 November 2018, https://nafta.wnp.pl/to-juz-niemal-pewne-naftoport-zanotuje-historyczny-wynik,333819_1_0_1.html (accessed: 15.02.2019).

and in result the Druzhba pipeline was closed. This situation proved that Naftoport has great potential; the accident was an emergency test check for both the capacity of Naftoport and for the efficiency of the Polish transmission system.²¹

EXPANSION OF THE OIL TERMINAL

Due to the strategic importance of Naftoport, the main investments were focused on increasing its transshipment capacity. There had only been two transshipment stations until 2010, but soon after that Naftoport had already 5 stations available; two have been repurchased from Port Północny company and then thoroughly modernized.²² In 2012, the modernization of the transshipment station “P” was continued in order to upgrade its technical parameters. Naftoport replaced the loading arms and control systems; modernized the safe mooring system; installed duplicate measurements systems, power surge protectors, gas detectors and potential equalization system; and adapted the power grid as well as measuring, monitoring and protective systems to the requirements of the ATEX directive. In 2012, the enhancement and extension of the transshipment station “O” was completed; in particular, a new additional transshipment arm was installed and piping system as well as fire protection system were upgraded.²³

In 2014, loading arms were exchanged as part of the enhancement of station “P”. Naftoport installed three MLA260 type loading arms with a diameter of 12”, and four MLA260 arms with a diameter of 16”. The manufacturer and supplier of the arms was Loading Equipment B.V. from the Netherlands. Between 26 and 27 June 2015, the newly built transshipment station “T1”, with a loading capacity of 2 million tonnes a year, started to work.²⁴ It can be assumed that the enhanced Naftoport will increasingly play the role of a transshipment port for the oil import to Poland or transport of extracted oil from deposits owned by Polish enterprises (it becomes even more important in combination with such planned investments as the Odessa–Brody–Gdańsk and Płock–Gdańsk oil pipelines).²⁵ In 2015,

²¹ R. Kiewlicz, *Naftoport: rekordowe...*, *op. cit.*

²² M. Leżucha, *Rośnie znaczenie...*, *op. cit.*

²³ *Wydarzenia...*, *op. cit.*

²⁴ *Ibidem.*

²⁵ P. Mickiewicz, *Bezpieczeństwo energetyczne i ekologiczne Polski a rozbudowa bałtyckiego systemu transportu surowców energetycznych*, “Rocznik Bezpieczeństwa Międzynarodowego”, 2010, vol. 4, DOI 10.34862/rbm.2010.5, pp. 61–62.

another station for handling light fuels, mainly gasolines and diesel oil, started to work. Further activities were mainly aimed to increase fire and contamination prevention. Among significant investments, there were: the enhancement of the permanent overflow dam, the construction of foam concentrate storage tanks and of an installation for light product residuals, and the upgrade of valves at one of the reloading stations.²⁶

The construction of seven new oil tanks is crucial for the development of Naftoport; as a result, the facility will gain nearly 600,000 m³ of new capacity (4.1 million m³ in total). PERN has officially handed over the construction site to the consortium implementing this project, which consists of Naftoremont-Naftobudowa company as the leader and Agat company. The company Naftoremont-Naftobudowa Sp. z o.o. belongs to Polimex Mostostal capital group and provides renovation, enhancement and investment services for the refining and petrochemical, chemical and gas industries, as well as environmental protection both in Poland and abroad.²⁷ According to the original arrangements, the investment was to be completed in the Q3²⁸ or in October 2020. The construction of the second raw material pipeline extending from the Baltic Sea port to the center of Poland is also very important; it will increase the diversification and ensure full separation of new oil species for PERN customers.²⁹

The implemented investments make the handling of incoming tankers more efficient. As part of the extension works, technological installations for crude oil, electrical grid, water and foam networks, sanitary networks, roads, and automation systems will be further developed. This investment is another project in the raw material area in Poland.³⁰ According to the data from the beginning of 2019, building a terminal together with the necessary infrastructure costs PLN 412 million. In January 2019, PERN

²⁶ M. Leżucha, *Rośnie znaczenie...*, *op. cit.*

²⁷ *Rusza rozbudowa...*, "wGospodarce.pl", *op. cit.*

²⁸ PERN wybrał wykonawcę rozbudowy terminalu w Gdańsku, "Wnp.pl", 17 December 2018, <https://www.wnp.pl/nafta/pern-wybral-wykonawce-rozbudowy-terminalu-w-gdansk,336439.html> (accessed: 15.02.2020).

²⁹ MM, *Naftoport zdaje test wstrzymania dostaw ropy naftowej*, "Magazynprzemyslowy.pl", 22 July 2019, <https://www.magazynprzemyslowy.pl/aktualnosci/Naftoport-zdaje-test-wstrzymania-dostaw-ropy-naftowej,12364,1> (accessed: 28.10.2019).

³⁰ PERN/Polska Agencja Prasowa, *Rusza przetarg na nowe zbiorniki terminala naftowego w Gdańsku*, "Biznes Alert", 9 October 2018, <https://biznesalert.pl/pern-terminal-naftowy-nowe-zbiorniki> (accessed: 6.02.2020).

announced that the General Meeting approved a Multiannual Strategic Plan until 2022, which assumes PLN 2.7 billion financial outlays into the entire capital group.³¹ This significantly supports the project and may result in the further development of Naftoport and its transshipment capacity.

TABLE 1. TRANSSHIPMENTS AT THE NAFTOPORT TERMINAL IN 2018

Number of ships	Crude oil (in thousand tonnes)	Petroleum products (in thousand tonnes)	Crude oil and products together (in thousand tonnes)
314	12,140	2777	14,917

Source: “Naftoport”, n.d., <http://www.naftoport.pl> (accessed: 23.10.2019).

OLPP (Operator Logistyczny Paliw Płynnych – Liquid Fuel Logistics Provider) company, the largest liquid storage and transshipment entity in Poland, was absorbed into PERN and, as a result, the group took over nineteen storage bases with a total capacity of 1.8 m³. These facilities, which were later expanded, store gasoline, diesel oil, light heating oil, as well as biocomponents and aviation fuel. The group plans to introduce projects related to *Policy of the Government of the Republic of Poland for logistics infrastructure in the oil sector*, a document adopted by the Council of Ministers in November 2017, which focuses on increasing Poland’s energy security.³² In 2019 Naftoport achieved the best result in transshipment for the second time in a row, handling 304 tankers at the terminal and reloading nearly 17 million tonnes of crude oil and liquid fuels, exceeding significantly the highest annual volume of 14.9 million tonnes from 2018.³³

TABLE 2. TRANSSHIPMENTS AT THE NAFTOPORT TERMINAL IN 2019

Number of ships	Crude oil (in thousand tonnes)	Petroleum products (in thousand tonnes)	Crude oil and products together (in thousand tonnes)
304	14,621	2180	16,801

Source: “Naftoport”, n.d., <http://www.naftoport.pl> (accessed: 29.10.2019).

³¹ mb/ drag/, *Rusza rozbudowa terminala naftowego w Gdańsku*, “Portalmorski.pl”, 7 February 2019, <https://www.portalmorski.pl/porty-logistyka/41690-rusza-rozbudowa-terminalu-naftowego-pern-w-gdansk> (accessed: 28.10.2019).

³² *Rusza przetarg...*, *op. cit.*

³³ mb/ drag/, *Rusza rozbudowa...*, “Portalmorski.pl”, *op. cit.*, (accessed: 28.10.2019).

CONCLUSION

The expansion of the oil terminal in Gdańsk is an important project which can be regarded as a milestone in the history of the Naftoport. It is also the largest investment of this type in Poland. The development of infrastructure helps to significantly diversify the sources of raw material supply to Naftoport. Currently, one can observe a significant increase in the volume of oil shipped from various places.

A key part of the expansion of the terminal was a notable increase in the number of transshipment stations and their enhancement. New oil tanks were built, which was a further important improvement. The construction of the second oil pipeline running to the center of Poland plays also a significant role in increasing Poland's energy security. Other crucial initiatives implemented in Naftoport are: the development of crude oil technological installations, electricity grid, water and foam networks, sanitary networks, roads, and automation systems.

The expansion of Naftoport is another project aimed at increasing Poland's oil security and import capabilities, ensuring to Polish refineries continuous oil supplies, often at a lower price. Naftoport proved to be useful during the crisis caused by the import of contaminated oil from Russia. This facility acts as a maritime hub which enables oil supply to other European countries, in particular Germany.

The expanded terminal allows for more frequent transshipments; as a result, ships delivering raw material will be handled more efficiently. This is possible in particular thanks to the increase in storage capacity. The increase in transfer capacity of crude oil products is another factor related to the expansion of Naftoport that contributes to the increase of energy security of Poland.

The investments which are expected to be completed in 2020 will open new opportunities for Naftoport. The refineries will be able to more efficiently respond to the constantly changing market situation. The investment will help Poland in becoming an important participant in oil trade.

A modern terminal gives Poland more options and flexibility. More raw material can be delivered by sea and with competing crude oil imported from various sources, oil prices are expected to drop. Different types of oil can be delivered, they can be separated or blended, depending on the needs. The significant development of the logistics infrastructure will ensure access to the terminal for a very large number of vessels. The extension of the terminal can help to reduce the import of Russian oil to Poland.

REFERENCES

1. Apanowicz P., *Budowa terminalu PERN zaawansowana w 85 proc.*, "Wnp.pl", 17 September 2015, <https://www.wnp.pl/nafta/budowa-terminalu-pern-zaawansowana-w-85-proc,257641.html> (accessed: 17.02.2020).
2. Apanowicz P., *To już niemal pewne. Naftoport zanotuje historyczny wynik*, "Wnp.pl", 6 November 2018, https://nafta.wnp.pl/to-juz-niemal-pewne-naftoport-zanotuje-historyczny-wynik,333819_1_0_1.html (accessed: 15.02.2019).
3. Kiewlicz R., *Naftoport: rekordowe przetadunki*, "Trójmiasto.pl", 10 July 2019, <https://biznes.trojmiasto.pl/Naftoport-z-rekorodowymi-przetadunkami-n136113.html> (accessed: 24.02.2020).
4. Kowalski J., Kozera J., *Mapa zagrożeń bezpieczeństwa energetycznego RP w sektorach ropy naftowej i gazu ziemnego*, "Bezpieczeństwo Narodowe", 2009, no. 9–10, pp. 301–324.
5. Leżucha M., *Rosnie znaczenie gdańskiego gazoportu. Rozmowa z Dariuszem Kobiereckim, Prezesem Zarządu Przedsiębiorstwa Przetadunku Paliw Płynnych Naftoport Sp. z o.o.*, "Najwyższa Jakość QI", 2017, <http://najwyzszajakoscqi.pl/index.php/artykuly/138-rosnie-znaczenie-gdanskiego-naftoportu> (accessed: 15.04.2020).
6. mb/ drag/, *Rusza rozbudowa terminala naftowego w Gdańsku*, "Portalmorski.pl", 7 February 2019, <https://www.portalmorski.pl/porty-logistyka/41690-rusza-rozbudowa-terminalu-naftowego-pern-w-gdansk> (accessed: 28.10.2019).
7. Mickiewicz P., *Bezpieczeństwo energetyczne i ekologiczne Polski a rozbudowa bałtyckiego systemu transportu surowców energetycznych*, "Rocznik Bezpieczeństwa Międzynarodowego", 2010, vol. 4, pp. 55–72, DOI 10.34862/rbm.2010.5.
8. MM, *Naftoport zdaje test wstrzymania dostaw ropy naftowej*, "Magazynprzemysłowy.pl", 22 July 2019, <https://www.magazynprzemyslowy.pl/aktualnosci/Naftoport-zdaje-test-wstrzymania-dostaw-ropy-naftowej,12364,1> (accessed: 28.10.2019).
9. "Naftoport", n.d., <http://www.naftoport.pl> (accessed: 29.10.2019).
10. *Naftoport przeznaczy prawie 20 mln zł na inwestycje w 2019 roku*, "Money.pl", 9 July 2019, <https://www.money.pl/gielda/naftoport-przeznaczy-prawie-20-mln-zl-na-inwestycje-w-2019-roku-6400684538848897a.html> (accessed: 14.10.2019).
11. *O nas*, "PERN", <https://pern.pl/o-nas> (accessed: 31.01.2020).

-
12. PAP, *PERN podpisał z konsorcjum Naftoremont–Naftobudowa umowę na rozbudowę TNG*, “Pulsbiznesu.pl”, 16 January 2019, <https://www.pb.pl/pern-podpisał-z-konsorcjum-naftoremont-naftobudowa-umowe-na-rozbudowe-tng-950690> (accessed: 22.11.2019).
 13. *PERN wybrał wykonawcę rozbudowy terminalu w Gdańsku*, “Wnp.pl”, 17 December 2018, <https://www.wnp.pl/nafta/pern-wybrał-wykonawce-rozbudowy-terminalu-w-gdansk,336439.html> (accessed: 15.02.2020).
 14. PERN/Polska Agencja Prasowa, *Rusza przetarg na nowe zbiorniki terminala naftowego w Gdańsku*, “Biznes Alert”, 9 October 2018, <https://biznesalert.pl/pern-terminal-naftowy-nowe-zbiorniki> (accessed: 6.02.2020).
 15. *Podstawowe parametry portu*, “Naftoport”, n.d., http://www.naftoport.pl/index7f3f.html?option=com_content&view=article&id=97&Itemid=105 (accessed: 25.02.2019).
 16. *Rusza rozbudowa terminala naftowego w Gdańsku*, “wGospodarce.pl”, 6 February 2019, <http://wgospodarce.pl/informacje/59758-rusza-rozbudowa-terminala-naftowego-w-gdansk> (accessed: 6.02.2020).
 17. Wasilewski A., *Ropociąg Odessa–Brody–Płock i Gazociąg Bałtycki*, “Polityka Energetyczna”, 2005, vol. 8, no. 1, pp. 63–89.
 18. Wieloński A., Machowski J., *Procesy transformacji wybranych przemysłów w Polsce i na świecie*, “Prace Komisji Geografii Przemysłu”, 2008, no. 10, pp. 86–92.
 19. Wojcieszak Ł., *Bezpieczeństwo naftowe Polski – problem dywersyfikacji*, Przemysł 2015.
 20. *Wydarzenia*, “Naftoport”, n.d., http://www.naftoport.pl/index781e.html?option=com_content&view=category&layout=blog&id=44&Itemid=143 (accessed: 13.11.2019).

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