

Mirosław SKARŻYŃSKI

Adam Mickiewicz University in Poznań
ORCID: 0000-0003-0954-4867

Sanctions Policy Against the Russian Liquefied Natural Gas Sector (Arctic LNG 2 project)

Abstract: Compared to gas transported through pipelines, liquefied natural gas (LNG) can be delivered to recipients worldwide, which explains Russia's rapid expansion of LNG production. However, the diversification of natural gas supplies is constrained by sanctions imposed on Russia to limit its revenues from fossil fuel exports. To assess the effects of these restrictions, this study examines a complex of LNG facilities built in the circumpolar climate and the sanctions intended to halt their development. The research seeks to answer whether the restrictions have achieved their intended objectives, thereby testing the hypothesis that sanctions will lead to the marginalization of the project under consideration. Using a case study approach – focused on the Arctic LNG 2 project – commonly applied in social sciences, the article provides a detailed analysis of the effectiveness of measures restricting the production and transportation of Russian LNG. The discussion is organized into two sections: the first outlines the process of constructing LNG terminal in the circumpolar climate, while the second analyzes the actions undertaken by some European Union and the U.S. administration to block the project. The findings indicate that sanctions targeting the construction of Arctic gas carriers, essential for exporting liquefied gas and ensuring direct deliveries to Europe, have significantly contributed to the underutilization of the examined LNG terminal.

Key words: Arctic LNG 2 project, Russia, Siberia, sanctions

Introduction

The production of LNG (liquefied natural gas) – natural gas in liquid form at temperatures below -162°C – is of strategic importance to the Russian Federation, as it enables the delivery of energy resources to customers worldwide. According to the *Energy Strategy of the Russian Federation to 2035*, approved on June 9, 2020, domestic LNG production was projected to reach up to 140 million tonnes per year, including 91 million tonnes originating from the Arctic (Ciszak, 2024). The strategic objective was to secure a 20% share of the global LNG market (Russia's..., 2024). Through the construction of new LNG terminals, Russia aimed to become the world's largest producer of liquefied natural gas, positioning itself alongside Qatar and the United States as a leading player in the global LNG market (Sankeje..., 2024).

However, efforts to diversify export markets – following the reduction of pipeline gas supplies to Europe – face significant challenges due to successive rounds of sanctions imposed on Russia, particularly those targeting the Arctic LNG 2 project (Jakóbik, 2024a; Lipczyński, 2024).

This study focuses on a complex of LNG facilities constructed in the circumpolar climate, while its object is the system of sanctions aimed at halting this investment. The main objective is to assess the impact of restrictions imposed on Russia's LNG sector

by the end of May 2024. The central research question is whether these sanctions have achieved their intended effect. To answer this question and test the hypothesis that the sanctions will lead to the marginalization of the Arctic LNG 2 project, the study employs a research method commonly used in the social sciences – a narrowly defined case study.

Characteristics of the Arctic LNG 2 project

The Arctic LNG 2 project is the second large-scale liquefied natural gas venture developed by the energy company Novatek, following the Yamal LNG project. The facility is located on Ura Bay, approximately 40 km from Murmansk (Fig. 1). Feed gas will be supplied from the Utrenneye field, situated on the Gydan Peninsula in the Yamalo-Nenets Autonomous Okrug (Projekt, 2024). The reserves of this field are estimated at 1.98 trillion m³ of natural gas (Kamiński, 2023).

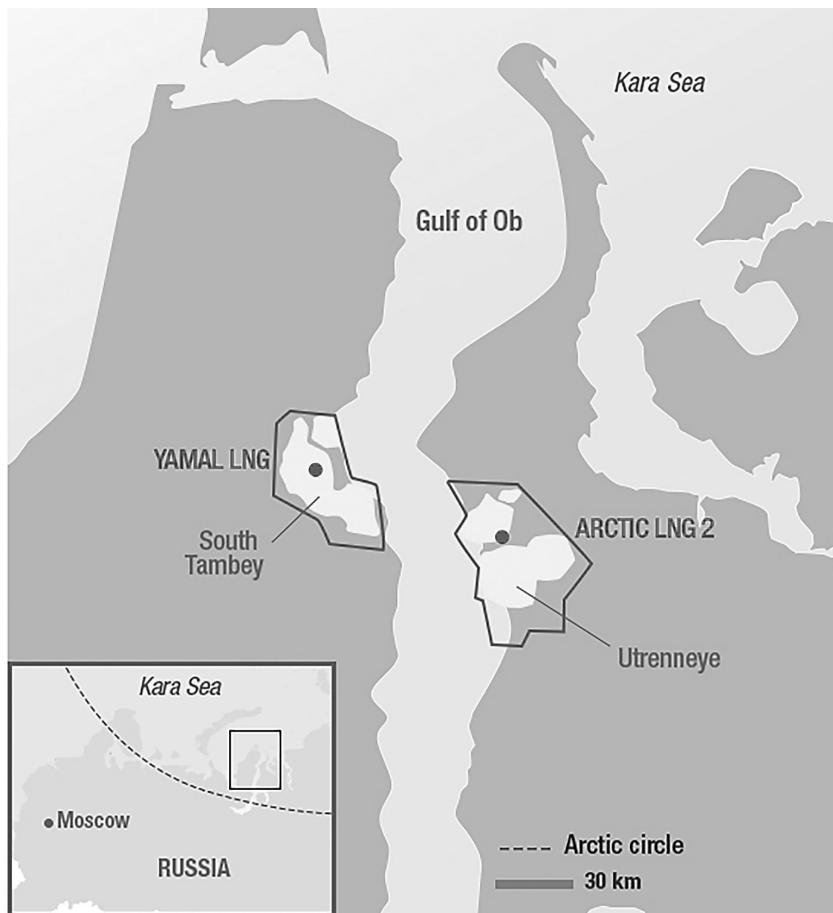


Figure 1. Location of the Arctic LNG 2 project

Source: *Russia...*, 2018.

As part of the Arctic LNG 2 project, three liquefied natural gas production lines were planned, each with a capacity of 6.6 million tonnes per year, for a total annual output of 19.8 million tonnes of LNG and approximately 1.6 million tonnes of gas condensate. This output is expected to strengthen Russia's position in meeting the growing global demand for energy resources and to increase state revenues from raw material exports (*Projekt...*, 2024). The project employs technology developed by the German company Linde GmbH (Trusewicz, 2024a). It is located in the far north of Russia, in the ice-covered waters of the Northern Sea Route (NSR), where winter lasts for seven to nine months, temperatures can fall to -52°C , and the environment is highly corrosive due to both water and atmospheric exposure (*Arctic...*; Humpert, 2024b).

The operator of Arctic LNG 2 is the joint venture Arctic LNG 2 LLC, in which Novatek holds a 60% majority stake. The remaining shares are owned by TotalEnergies (France), Mitsui (Japan), CNPC, and CNOOC (China), each holding 10% (Zhupanyn, 2024). Novatek and its partners have signed 20-year sale and purchase agreements covering the entire production volume (Temizer, 2021). Project financing was secured through loans totaling €9.5 billion, granted for a 15-year period by a consortium of Russian and foreign banks (*Projekt...*, 2024).

In 2018, the Front-End Engineering Design (FEED) phase was completed, expanding upon the Basic Engineering design. Construction activities began with site preparation, the development of power supply infrastructure, the drilling of production wells, and the construction of a quay. The Final Investment Decision (FID) was made in September 2019. The project introduced the use of innovative Gravity-Based Structures (GBS) (*Арктик...*, 2019). These reinforced concrete structures, typically deployed at depths of 5–40 meters, provide exceptional stability in extreme climatic and marine conditions due to their large mass and base area (Górski, Pawliczka vel Pawlik, 2019, p. 12). By the end of 2022, more than 90% of the required equipment had been contracted, overall project completion was estimated at 73%, and the first production line was 95% complete. Seventy-nine production wells were drilled, providing sufficient gas reserves for the launch of operations (*Projekt...*, 2024).

Novatek, Russia's largest private gas company, serves as the project operator (Kamiński, 2023). As part of the investment, the Center for Construction of Large-Capacity Offshore Structures was established near the village of Belokamenka, close to Murmansk. The facility includes two dry docks for building GBS units and infrastructure for assembling and installing modular components (*Арктик...*, 2019). It represents the most advanced technical base for LNG infrastructure in Russia. Additionally, the Utrenniy Airport was constructed specifically for the project, with the first aircraft landing there in June 2021. The project has created new jobs in high-tech industries and has contributed to the economic development of the region (*Projekt...*, 2024).

Cost reductions in LNG production are expected to result from the use of GBS technology, the localization of equipment manufacturing and material supply within Russia, and the exploitation of onshore gas fields (*Projekt...*, 2024). These measures are intended to ensure the maximum competitiveness of Russian-produced liquefied natural gas in global markets (*Арктик...*, 2019).



Photo 1. Arctic LNG 2 facilities

Source: Kubny, 2024.

Once completed, Arctic LNG 2 will be the largest LNG terminal in Russia. According to the project schedule, the first liquefied natural gas production line was expected to begin operations by the end of 2023, as announced by Novatek's CEO, Leonid V. Mikhelson. In the same year, a transshipment terminal on the Barents Sea coast – featuring storage tanks with a capacity of up to 360,000 tonnes each and capable of simultaneously servicing two LNG carriers – was also planned to become operational (Kuczyński, 2023). In August 2023, the first project module was towed from the Center for Construction of Large-Capacity Offshore Structures in Belokamenka, Russia, and, after a 22-day sea voyage, installed on a gravity-based foundation positioned on the seabed near the shore (Project..., 2024). Despite the ongoing war in Ukraine, the Russian gas company Novatek continues to advance the development of Arctic LNG infrastructure. The second production line is scheduled to start operation in 2024, and the third in 2026. The first two processing trains have already secured gas supplies (Kuczyński, 2023).

Consequences of sanctions imposed on Arctic LNG 2

In April 2022, in response to Russia's actions destabilizing the situation in Ukraine, the Council of the European Union imposed a ban on the sale, supply, transfer, or export – directly or indirectly – of goods and technologies suitable for liquefying natural gas, whether originating from the EU or not, to any individuals, legal entities, or bodies in Russia, or for use within Russia (*Council Regulation...*, 2022, Art. 3b(1)). Under the fifth package of restrictive measures, vessels flying the Russian flag were also prohibited from entering EU ports (Snyder, 2022).

On November 2, 2023, the U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC) expanded its sanctions list in the energy sector to include Arctic LNG 2 LLC (Taking, 2023; Rudnik, Wiśniewska, 2023). The restrictions targeted the Arctic LNG 2 project in connection with the conviction of opposition leader Alexei Navalny, whose attempted assassination is suspected to have been ordered by the Russian authorities. These sanctions blocked access to liquefaction equipment and prevented the delivery of Arctic-class LNG carriers with reinforced hulls designed to navigate ice-covered waters. As a result, the project's capacity for stable LNG exports was significantly reduced, including through floating storage units (FSUs) – *Koryak* in Murmansk and *Saam* in Kamchatka – intended for transshipment between Arctic and conventional carriers. The sanctions also increased overall project costs (Trusewicz, 2023; Jakóbik, 2024a).

Following the imposition of U.S. sanctions, foreign shareholders of Arctic LNG 2 declared force majeure, which, under the signed agreements, released them from financial commitments and from obligations to execute LNG offtake contracts (Trusewicz, 2023). In February 2024, additional sanctions were introduced against the Russian shipping company Sovcomflot, the owner of LNG carriers designated to serve the Arctic LNG 2 project (Rudnik, 2024). Around the second anniversary of Russia's full-scale invasion of Ukraine, the list of key Russian entities subject to restrictions was updated once again to include the Arctic LNG 2 project. Sanctions were also extended to Novatek's CEO and other senior executives (Kuczyński, 2024).

On May 1, 2024, the U.S. Department of State announced a new set of restrictive measures targeting two shipping operators involved in transporting equipment essential for the continuation of the Arctic LNG 2 project. These actions were intended to demonstrate the U.S. administration's determination to curb the production and export of liquefied natural gas originating from Arctic LNG 2 (Jakóbik, 2024a). The Office of Foreign Assets Control (OFAC) added the Singapore-based company Red Box Energy Services PTE Ltd. to its list of Specially Designated Nationals (SDNs), along with its specialized Arc7-class semi-submersible heavy transport vessels *Audax* and *Pugnax*. At the end of February, these vessels had delivered a batch of modules for the construction of the project's second production line (Trusewicz, 2024b). In the forthcoming 14th package of sanctions, which will also apply to Arctic LNG 2, the European Commission intends to block the re-export of Russian liquefied natural gas by prohibiting its transshipment in EU ports and restricting its delivery to third countries via European maritime transport (KE..., 2024).

Following Russia's invasion of Ukraine on February 24, 2022, investigations by journalists from the French daily *Le Monde* and the German weekly *Der Spiegel* revealed that companies from the United Kingdom, Italy, and the United States continued to supply equipment destined for Arctic LNG 2. Data from Russian customs authorities indicated that the total value of this equipment reached USD 400 million. Consequently, Novatek was able to complete the project's first production line on schedule in July 2023 (Projekt..., 2024).

Further findings by *The Moscow Times*, an independent Russian online newspaper based in Amsterdam, in cooperation with the NGO Arctida, showed that between May 2022 and the end of January 2024, Arctic LNG 2 received equipment from EU member states worth a total of €580 million. In 2023 alone, deliveries valued at over €220 million were made, with the largest shares coming from Italy (€112 million), France

(€31.6 million), Germany (€25 million), the Netherlands (€12.8 million), and Spain (€8 million). The main supplier was the Italian company Nuovo Pignone International SRL (BH), which shipped €41 million worth of equipment to Russia. Among French firms, Opta-Periph led with €6 million in deliveries of thermal insulation materials, valves, and other components, followed by Siemens AG from Germany (€4.8 million) and Ampo from Spain (over €2 million).

In addition to direct deliveries from European manufacturers, some shipments were routed through intermediaries, making them difficult to trace. Chinese companies involved in the construction of project modules also relied on imported European equipment, including Bomesc Offshore Engineering Co. Ltd., Cosco Shipping Heavy Industry Co. Ltd., Penglai Jutal Offshore Engineering Heavy Industries Co. Ltd., Wison Engineering Ltd., and Qingdao McDermott Wuchuan Offshore Engineering Co. Ltd. (Trusewicz, 2024). Satellite imagery confirmed that in early January 2024, two modules were loaded at the PJOE shipyard in northeastern China and subsequently transported by heavy-lift vessels to Belokamenka (Humpert, 2024a).

In 2023, Novatek increased its natural gas production in anticipation of launching the Arctic LNG 2 terminal at the beginning of 2024. However, after the project came under international sanctions, gas output designated for the terminal fell sharply to 83 million m³ in February 2024 – three times lower than in January and five times lower than in December 2023. The sanctions also prevented the delivery of Arctic-class LNG carriers under construction at the South Korean shipyard Hanwha Ocean Co. Ltd., formerly Daewoo Shipbuilding & Marine Engineering Co. Ltd. (DSME) (Jakóbik, 2024b; Ćučuk, 2024). A total of 21 LNG carriers had been ordered for the project – six in South Korea and fifteen in Russia (Ćučuk, 2024). The Arc7-class vessels, each with a capacity of 172,600 m³ and powered by LNG, feature reinforced hulls capable of breaking through ice thicker than 2 meters (Zvezda..., 2021). Three of these ships were designated for Sovcomflot and another three for Mitsui O.S.K. Lines Ltd. (Ciszak, 2024). One order for three carriers has already been cancelled (Sankcje, 2024), and work on ten additional vessels intended for Arctic LNG 2 has been suspended. The project requires at least thirteen such vessels to maintain continuous operations (Ciszak, 2024). The Zvezda shipyard complex in Russia is expected to build fifteen of these ships (Sankcje..., 2024), but so far only three have been completed, with technical assistance from Samsung Heavy Industries Co. Ltd. After delivering five hulls with approval from the South Korean government, Samsung halted work on the remaining ten due to U.S. sanctions (Zhupanyñ, 2024). The combined use of these vessels and standard LNG carriers during the summer navigation period may allow limited exports to begin (Rudnik, 2024).

According to a Reuters report published on April 2, 2024, citing two independent sources, LNG production at Arctic LNG 2 was suspended due to sanctions imposed on the project and the shortage of suitable carriers. As a result, planned LNG deliveries for the first quarter of 2024 could not commence, and the first production line is not expected to start before the end of June (Sankcje..., 2024). Consequently, Western partners involved in the project have not yet received any LNG from its output (Jakóbik, 2024a).

After the outbreak of the war in Ukraine, Russian authorities continued the project, viewing maritime LNG exports to Asia – primarily to China and India – as a way to offset losses resulting from reduced pipeline gas exports to Western Europe. However,

according to the Russian business daily *Vedomosti* and Reuters, successive rounds of sanctions may reduce the project's scope to just two production lines, with a combined capacity of only 13.2 million tonnes per year (Ciszak, 2024). Completion of the investment may still be possible if China delivers the missing equipment, as it has recently become involved in supporting the project. The terminal is expected to be ready soon to send its first LNG shipment to China under contracts signed with Zhejiang Energy Gas Group Co. Ltd. and Shenergy Group Co. Ltd. (Jankowska, 2024).

The third production line, currently under construction at the Center for Construction of Large-Capacity Offshore Structures, is planned to be repurposed for the Murmansk LNG terminal, another Novatek initiative. The location of this new terminal near the ice-free port on Kola Bay will make it possible to use standard LNG carriers without ice-class certification (Rudnik, 2024).

Conclusions

Currently, the main bottleneck limiting the efficiency of the liquefied natural gas supply chain from the Arctic LNG 2 project is the shortage of ice-class LNG carriers owned by Russian shipping companies that could service the project's production lines. Novatek possesses only three new vessels of this type, all owned by the company and sailing under the Russian flag. Another major constraint stems from sanctions that prevent these vessels from accessing EU ports and from delivering LNG directly to European markets. In theory, Novatek could employ 15 Arc7-class LNG carriers used for exports from the existing Yamal LNG terminal; however, 11 of these are insured in the United Kingdom, three in Norway, nine operated by companies registered in EU member states, and five in the United Kingdom (Zhupanyn, 2024). Delivering LNG to transshipment hubs in Murmansk and Kamchatka also appears impractical, as these ships are already engaged in servicing the Yamal project, which is not yet subject to sanctions (Humpert, 2024b).

The analysis suggests that sanctions have so far been more effective against Russia's LNG suprastructure than its physical infrastructure. Without access to specialized maritime transport, Russia is unable to export liquefied natural gas from its new LNG terminals. The relocation of part of the LNG terminal construction capacity to Russia facilitates the completion and eventual commissioning of Arctic LNG 2. However, the differing approaches of governments and corporations toward sanctions in the natural gas sector have weakened their overall impact. The absence of a broad international consensus on restrictive measures hampers the realization of their intended political goals.

Bibliography

Арктик СПГ – 2 (2019), <https://neftegaz.ru/tech-library/pererabotka-nefti-i-gaza/451663-arktik-spg-2/>, 2.06.2024.

Arctic LNG 2, <https://www.f2a.fr/en/arctic-lng-2/>, 19.05.2024.

Ciszak P. (2024), *Cios w wielki projekt Rosji. Gigant redukuje plany*, <https://www.money.pl/gospodarka/arktyczne-eldorado-rosji-topnieje-najwickszy-projekt-rosyjskiego-lng-traci-moc-7022477982616512a.html>, 9.05.2024.

Council Regulation (EU) 2022/576 of 8 April 2022 amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilizing the situation in Ukraine, OJ EU L 111 of 8.04.2022.

Čučuk A. (2024), *Report: Production starts at Russia's Arctic LNG 2 despite US sanctions*, <https://www.offshore-energy.biz/report-production-starts-at-russias-arctic-lng-2-despite-us-sanctions/>, 19.05.2024.

Górski W., Pawliczka vel Pawlik I. (2019), *Wprowadzenia do tematu morskiej energetyki wiatrowej na obszarze Morza Bałtyckiego*, Unia Europejska. Europejski Fundusz Społeczny, Hel.

Humpert M. (2024a), *Delivery of Final Modules for Russia's Arctic LNG 2 Project Highlights Challenge of Designing Effective Sanctions*, <https://www.hightnorthnews.com/en/delivery-final-modules-russias-arctic-lng-2-project-highlights-challenge-designing-effective>, 17.05.2024.

Humpert M. (2024b), *No Shipments from Russia's Arctic LNG 2 Until March as Sanctions Block Delivery of LNG Carriers*, <https://www.arctictoday.com/no-shipments-from-russias-arctic-lng-2-until-march-as-sanctions-block-delivery-of-lng-carriers/>, 19.05.2024.

Jakóbik W. (2024a), *Amerykanie chcą dobić nadzieję LNG Rosji*, <https://biznesalert.pl/arctic-lng-2-rosja-sankcje-usa-unia-europejska-embargo-lng-gaz/>, 9.05.2024.

Jakóbik W. (2024b), *Rosjanie dławią się LNG przez sankcje zachodnie*, <https://biznesalert.pl/novatek-arctic-lng-2-sankcje-usa-blokada-eksport-spadek-wydobycie/>, 26.04.2024.

Jankowska A. (2024), *Rosyjski Novatek otwiera oddział w Chinach. Będzie sprzedawać LNG pomimo sankcji*, <https://energetyka24.com/gaz/wiadomosci/rosyjski-novatek-otwiera-oddzial-w-chinach-bedzie-sprzedawac-lng-pomimo-sankcji>, 11.05.2024.

Kamiński R. (2023), *Sankcje na rosyjski project Arctic LNG 2 wyzwaniem dla Japonii w zakresie dostaw gazu do kraju*, <https://www.gospodarkamorska.pl/sankcje-na-rosyjski-project-arctic-lng-2-wyzwaniem-dla-japonii-w-zakresie-dostaw-gazu-do-kraju-73622>, 9.05.2024.

KE planuje 14. pakiet sankcji przeciw Rosji. Ma objąć LNG (2024), <https://www.bankier.pl/wiadomosc/KE-planuje-14-pakiet-sankcji-przeciw-Rosji-Ma-objac-LNG-8736740.html>, 17.05.2024.

Kubny H. (2024), *Novatek could discontinue production at Arctic LNG-2*. Photo: Novatek, <https://polarjournal.ch/en/2024/04/11/novatek-could-discontinue-production-at-arctic-lng-2/>, 4.06.2024.

Kuczyński G. (2023), *Ekspansja Novateku. W tym roku ruszy Arctic LNG 2*, <https://warsawinstitute.org/pl/ekspansja-novateku-w-tym-roku-ruszy-arctic-lng-2/>, 25.04.2024.

Kuczyński G. (2024), *Wielka Brytania rozszerza sankcje wobec Rosji. Cios w perłę LNG i diamentowe imperium*, <https://i.pl/wielka-brytania-rozszerza-sankcje-wobec-rosji-cios-w-perle-lng-i-diamondowe-imperium/ar/c1-18331727>, 17.05.2024.

Lipczyński T. (2024), *Sankcje USA zablokowały rosyjski eksport LNG. Projekt utknął w martwym punkcie*, <https://forsal.pl/biznes/energetyka/artykuly/9476686,sankcje-usa-zablokowały-rosyjski-eksport-lng-projekt-utknął-w-martwym.html>, 9.05.2024.

Project Arctic LNG 2 (2024), <https://www.novatek.ru/en/business/arctic-lng/>, 4.05.2024.

Projekt Arctic LNG 2. Nowe środki w rosyjskim budżecie. Chodzi o sprzedaż gazu (2024), <https://polskieradio24.pl/artykul/3342041,projekt-arctic-lng-2-nowe-srodki-w-rosyjskim-budzecie-chodzi-o-sprzedaz-gazu>, 4.05.2024.

Rudnik F. (2024), *Rosja: redukcja mocy Arktycznego LNG 2 wskutek sankcji*, <https://www.osw.waw.pl/pl/publikacje/analizy/2024-04-26/rosja-redukcja-mocy-arktycznego-lng-2-wskutek-sankcji>, 11.05.2024.

Rudnik F., Wiśniewska I. (2023), *Stany Zjednoczone uszczelniają sankcje wobec Rosji*, <https://komencze-rynkowe.cire.pl/artykuly/servis-informacyjny-cire-24/stany-zjednoczone-uszczelniaja-sankcje-wobec-rosji>, 17.05.2024.

Russia: Total expands partnership with Novatek through Arctic LNG 2 project (2018), <https://totalenergies.com/media/news/press-releases/russia-total-expands-partnership-novatek-through-arctic-lng-2-project>, 25.04.2024.

Russia's Novatek cancels Arctic LNG-2 project in Siberia due to Western sanctions – Reuters (2024), <https://www.pravda.com.ua/eng/news/2024/04/4/7449737/>, 17.05.2024.

Sankcje działają. Ogiromny cios w rosyjskie plany (2024), <https://www.money.pl/gospodarka/sankcje-dzialaja-ogromny-cios-w-rosyjskie-plany-7012683840510528a.html>, 7.05.2024.

Snyder J. (2022), *Arctic LNG 2 faces major hurdles from new EU sanctions*, <https://www.rivieramm.com/news-content-hub/news-content-hub/arctic-lng-2-faces-major-hurdles-from-new-eu-sanctions-70788>, 19.05.2024.

Taking Additional Sweeping Measures Against Russia (2023), <https://www.state.gov/taking-additional-sweeping-measures-against-russia>, 17.05.2024.

Temizer M. (2021), *All LNG of Arctic LNG-2 sold for next 20 yrs: Novatek*, <https://www.aa.com.tr/en-energy/finance/all-lng-of-arctic-lng-2-sold-for-next-20-yrs-novatek/32586>, 4.06.2024.

Trusewicz I. (2023), *Goodby Arctic LNG-2. Koncerny z Francją, Japonią i Chin opuszczają Rosję*, <https://energia.rp.pl/gaz/art39617811-goodby-arctic-lng-2-koncerny-z-francji-japonii-i-chin-opuszczaja-rosje>, 10.05.2024.

Trusewicz I. (2024a), *Unijne firmy lamy sankcje, dostarczając do Rosji sprzęt do instalacji LNG*, <https://energia.rp.pl/gaz/art39986191-unijne-firmy-lamia-sankcje-dostarczajac-do-rosji-sprzet-do-instalacji-lng>, 9.05.2024.

Trusewicz I. (2024b), *USA blokują rosyjskie zakłady LNG w Arktyce*, <https://energia.rp.pl/gaz/art40291841-usa-blokuja-rosyjskie-zaklady-lng-w-arktyce>, 9.05.2024.

Zhupany A. (2024), *US and EU have all the means to derail Russia's Arctic LNG expansion plans*, <https://www.euractiv.com/section/energy-environment/opinion/us-and-eu-have-all-the-means-to-derail-russias-arctic-lng-expansion-plans/>, 18.05.2024.

Zvezda pocięła stal pod kolejny arktyczny gazowiec LNG (2021), <https://www.gospodarkamorska.pl/zvezda-pociela-stal-pod-kolejny-arktyczny-gazowiec-lng-56892>, 17.05.2024.

Polityka sankcji wobec rosyjskiego sektora skroplonego gazu ziemnego (projekt Arctic LNG 2)

Streszczenie

W porównaniu do gazu przesyłanego gazociągami, gaz ziemny transportowany jako ciecz może być dostarczony dowolnemu odbiorcy, dlatego Rosja dynamicznie zwiększa produkcję LNG. Dywersyfikację dostaw gazu ziemnego może utrudnić polityka sankcyjna wobec Rosji skierowana na ograniczenie dochodów z eksportu paliw kopalnych. W celu określenia rezultatów restrykcji za podmiot badań przyjęto zespół instalacji LNG budowanych w klimacie okołobiegunowym, a przedmiot badań – sankcje skierowane na zahamowanie tej inwestycji. Uzyskanie odpowiedzi na pytanie badawcze: czy restrykcje osiągnęły zamierzony skutek pozwoli na weryfikację hipotezy: sankcje doprowadzą do marginalizacji rozwijanego przedsięwzięcia. Do szczegółowej analizy skuteczności środków ograniczających produkcję i transport rosyjskiego gazu ziemnego w ciekłym stanie skupienia posłużono się wykorzystywaną w naukach społecznych metodą badawczą jaką jest studium przypadku – projektu Arctic LNG 2. Zasadnicze rozważania artykułu ujęto w dwóch zagadnieniach. W pierwszym scharakteryzowano proces budowy terminalu LNG w klimacie okołobiegunowym, a w drugim działania wspólnoty europejskiej i amerykańskiej administracji skierowane na zablokowanie rozpatrywanej inwestycji. Z przeprowadzonych analiz wynika, że zasadniczy wpływ na niepełne wykorzystanie badanego terminalu LNG mają sankcje dotyczące budowy arktycznych gazowców koniecznych do wywozu skroplonego gazu oraz realizacji bezpośrednich dostaw do Europy.

Slowa kluczowe: projekt Arctic LNG 2, Rosja, Syberia, sankcje

Author Contributions

Conceptualization (Koncepcyjne): Mirosław Skarżyński

Data curation (Zestawienie danych): Mirosław Skarżyński

Formal analysis (Analiza formalna): Mirosław Skarżyński

Writing – original draft (Piśmiennictwo – oryginalny projekt): Mirosław Skarżyński

Writing – review & editing (Piśmiennictwo – sprawdzenie i edytowanie): Mirosław Skarżyński

Competing interests: The author have declared that no competing interests exist

(Sprzeczne interesy: Autor oświadczył, że nie istnieją żadne sprzeczne interesy)