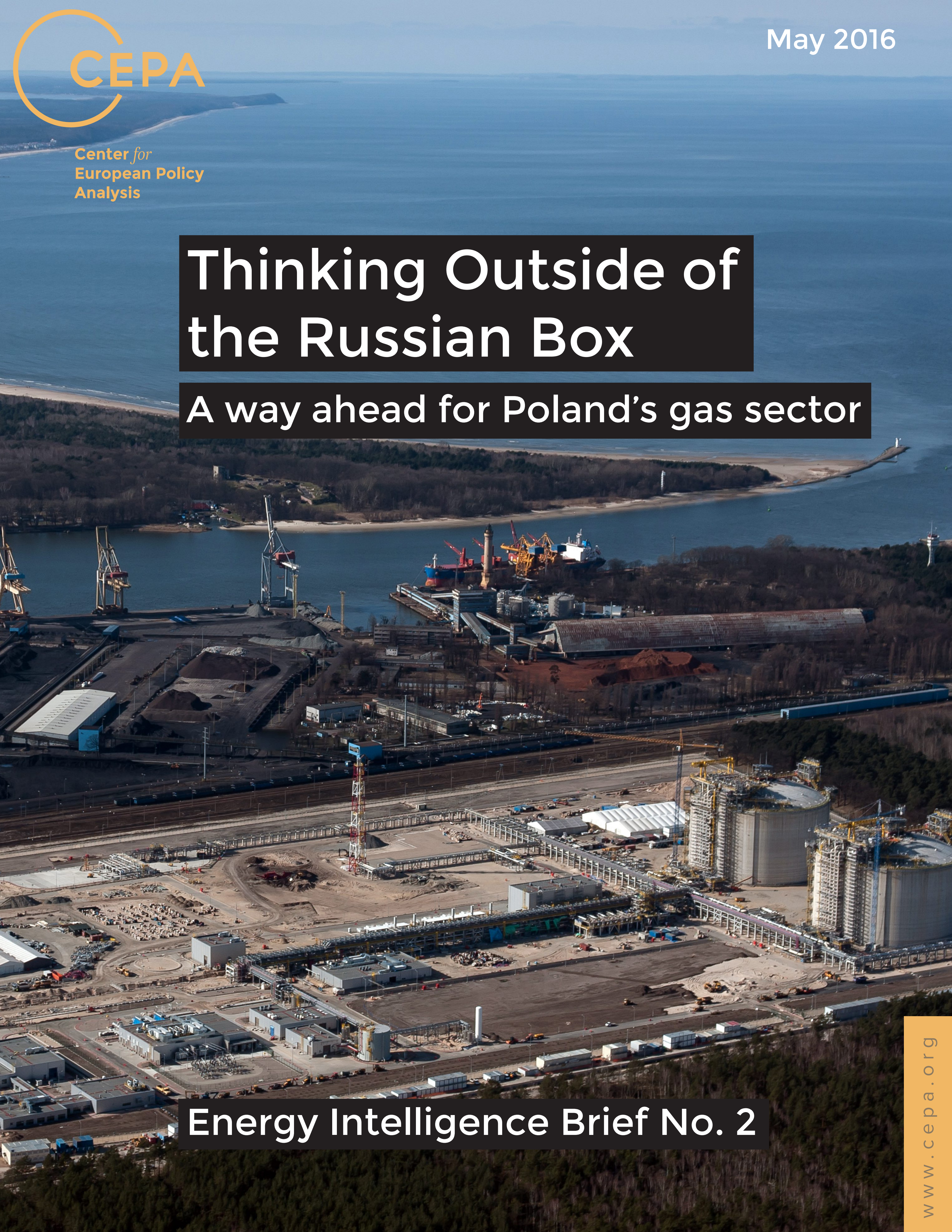

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Center *for* European Policy Analysis

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Thinking Outside of the Russian Box

A way ahead for Poland's gas sector

Energy Intelligence Brief No. 2

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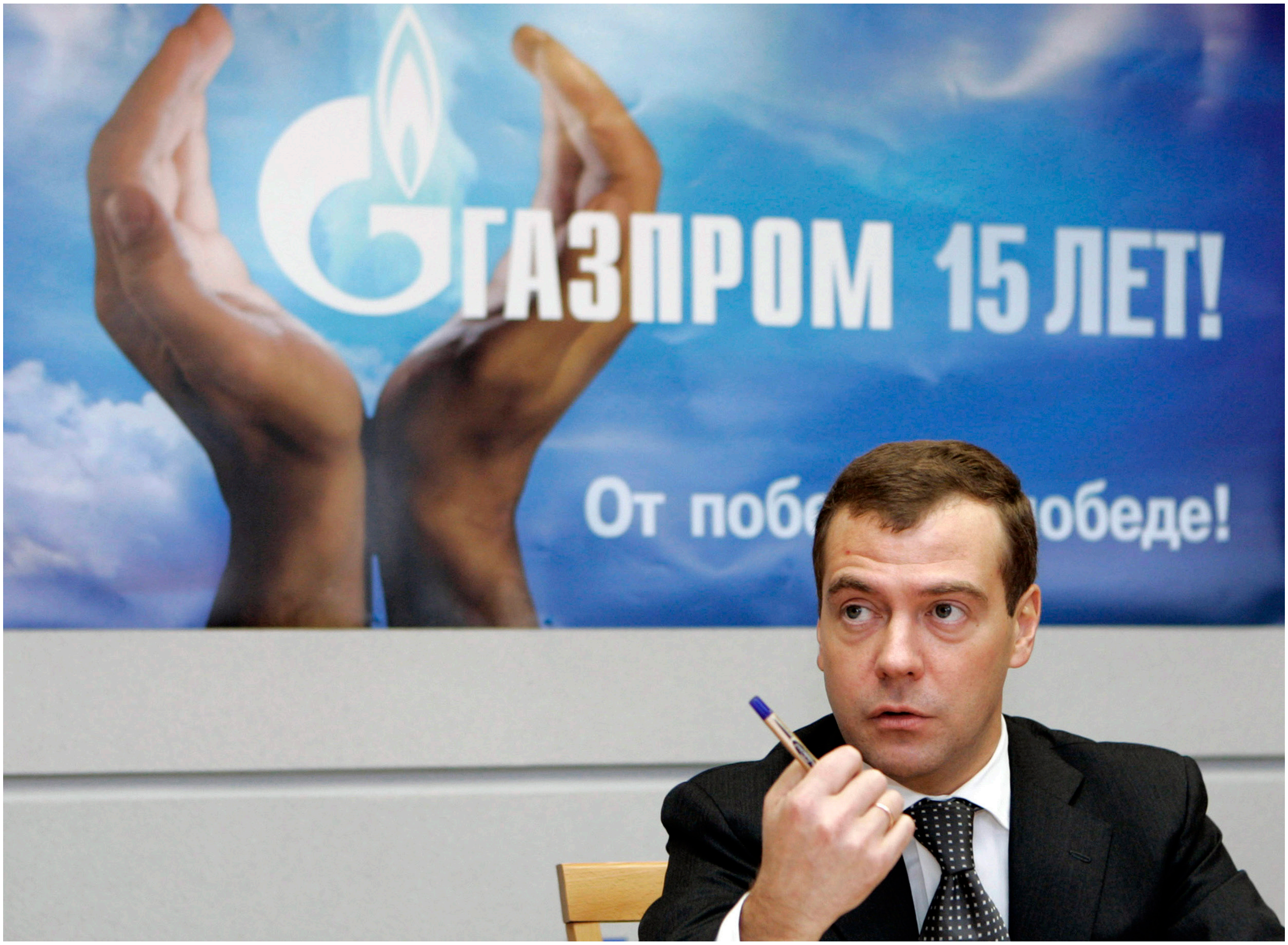
THE ISSUE

Russia's energy stranglehold on Poland may soon become only a painful memory. Following Tusk's sharp criticism of the Polish gas market in 2014, that market has undergone several significant changes, including implementation of European Union (EU) liberalization rules and increasing interconnections with neighbors. Above all, Poland has made a priority of diversifying its gas supply, allowing the country to end its historical dependence on Russia. This, along with assets such as the new terminal for importing liquefied natural gas (LNG), may give Poland the freedom to choose whether to negotiate with the Russians at all, or to negotiate—but only if it is sure of getting a good deal.

Unbearable Russia

It is hard to call Polish-Russian gas ties a mutually beneficial partnership. Complementarity of these two states' interests—the sale of gas to Poland and the export of this resource from Russia, coupled with their tangible connection via the Yamal transit pipeline—should encourage these countries to at least maintain a correct relationship, guided by the balance of supply and demand. However, gas pipelines remain an iron fist of Kremlin diplomacy, and Poland acutely feels the consequences of such a Russian approach. As a result, instead of bringing Poland financial benefits in the form of lower gas prices than in Western Europe, the two countries' geographical proximity risks undermining Polish political stability. The traditional East-West flow of gas, with Yamal at the forefront, is an albatross around the neck of Poland's gas market, despite the transit revenues. In the end, that structure—far from guaranteeing equality between the countries—only weakens Poland in its dealings with Russia's Gazprom.



Quantitative domination

In fact, Poland has today become a prisoner of Russian gas because of a 1993 bilateral accord as well as the so-called Yamal contract signed in 1996. That contract was later amended and is now binding until the end of 2019 for transit, and the end of 2022 for gas supplies to Poland; if by the end of 2019 neither party opts to end it, the contract will be automatically extended for another five years. Domestic production satisfies nearly a third of Poland's total gas consumption, which in 2015 came to 15.5 billion cubic meters (bcm). It is unlikely that Poland will increase its gas production—either conventional or unconventional—in the foreseeable future; therefore it must import the remainder. Most of Poland's imported gas, around 10 bcm yearly, still comes from Russia through various entry points along Poland's eastern border. For years, the Yamal contract—along with Gazprom's aggressive behavior—has badly constrained Poland's ability to develop relationships with other potential gas suppliers. Even though Poland's annual gas consumption will grow to 17 bcm in 2020—thanks to the construction of gas-fired power plants—as long as Yamal remains in force, Russia will overwhelmingly dominate the Polish market.

Qualitative superiority

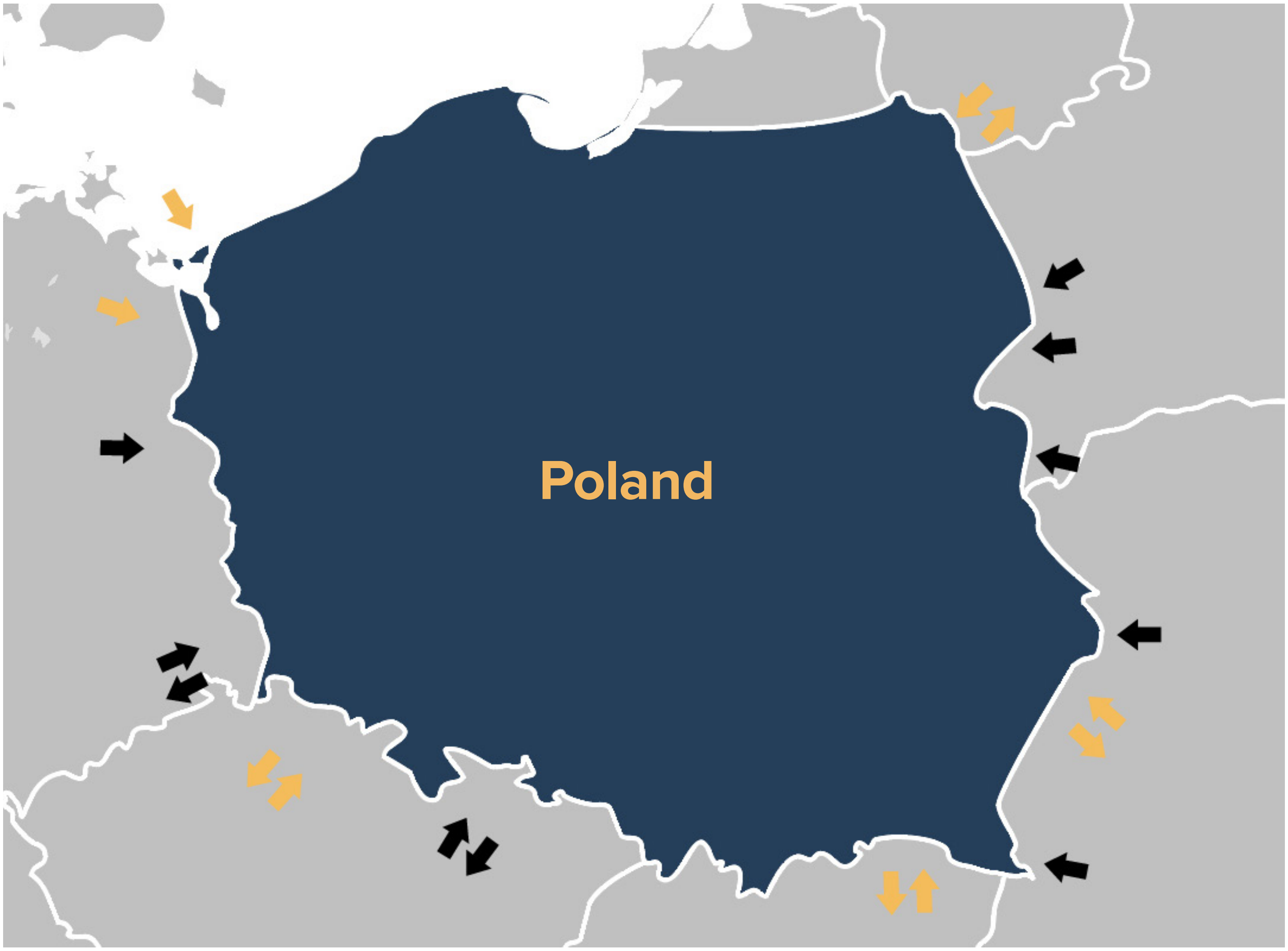
Poland is not, however, blameless. Since 1982, its gas sector has been highly centralized. A single major integrated state-owned company—Polish Petroleum and Gas Mining (PGNiG)—is active in the entire value chain, except for transmission, holding over 70 percent of the market and leaving little room for competitors. This structure, adopted during the communist era, ensured control over the development of Poland's gas industry. But since the 1990s, PGNiG has been seen as a counterweight to Russia's Gazprom monopoly. Unfortunately, poor preparation by Polish negotiators in the face of Russia's superior diplomatic and technical skills has led to disadvantageous outcomes for Poland during each round of talks. Not only was Moscow able to secure the greatest possible share in the Polish gas market; it also established adverse pricing formulas (making Poland pay one of Europe's highest supply fees), included take-or-pay clause and imposed severe restrictions on the re-export of Russian gas. In this way, Russia managed to gain qualitative advantage over any potential rivals and effectively blocking any long-term possibility of Poland finding alternative gas suppliers.

Absolute distrust

Although contractual obligations force Poland and Russia to cooperate, this cooperation is marred by mutual distrust and attempts by both sides to change the fragile and unbalanced status quo. On one hand, Russia abuses its dominance of the CEE gas market through monopolistic practices. It also manipulates Poland by restricting supplies for political reasons. In 2014, for instance, Russia cut its supply of gas to PGNiG to the bare minimum under daily contractual limits as a clear warning against Polish support for Ukraine. Russia also threatens Poland by forcing it to adapt its transmission system to Nord Stream 2, which upon completion would circumvent Ukraine as a transit country and make Poland even more dependent on on Moscow while flooding Western Europe with cheap Russian gas—thereby dividing Europe into two opposing camps. Despite its limited direct influence, Poland seeks partners in order to solidify its stance against Russia.

The EU's Third Energy Package—proposed by the European Commission (EC) in 2007 and adopted by the European Parliament and the Council of the EU in 2009—aims to liberalize the EU gas market through ownership unbundling and the establishment of national regulatory authorities in each of the EU's 28 member states. However, Russia opposes the Third Energy Package and in 2014 filed a petition with the World Trade Organization to stop the legislation.

Gas Flow



Existing Connections **Planned Connections**

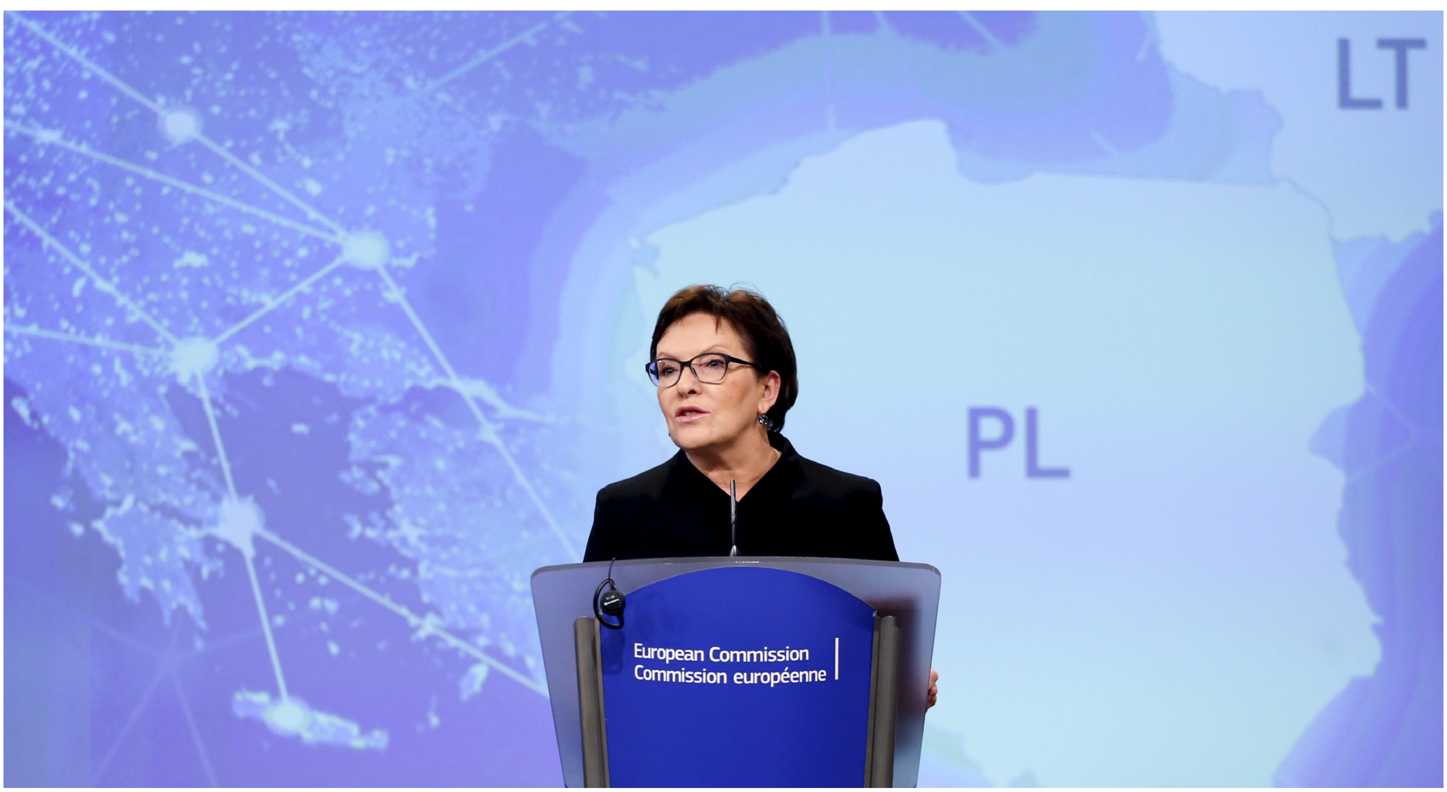
Map is approximately based off of PGNiG data.

Unilateral rules

In the context of EU accession as well as adherence to the principles of the Third Energy Package, Poland was forced to rethink its own gas sector. Under those principles, the EU's regulatory shield is supposed to replace strong state involvement, with market forces—not long-term contracts—protecting against geopolitical hazards. Yet the plan is not without risks. It was only in 2012, after Poland was sued in the EU Court of Justice for not transposing the Renewable Energy Directive as required by the Package (the case was later withdrawn), that Poland's gas market began transforming rapidly. In 2013, Poland introduced a national gas exchange that for the first time let customers freely choose their suppliers. That, in turn, lowered wholesale prices by 20 to 30 percent, spurring competition from new companies. Yet these reforms only concern Poland's internal market. EU regulatory tools are binding only for member states, and their impact on other countries depends largely on their willingness to adapt. As a consequence, during its contract renegotiations with Russia, Poland—at the EC's request—managed to agree with Russia at least on theoretical implementation of the need to unbundle Yamal and allow competition in gas transmission. Following complaints by Poland and other CEE countries, and after lengthy analysis, the EU leveled antitrust charges against Gazprom. On April 22, 2015, Margrethe Vestager, the EU commissioner for competition, claimed that Gazprom "may have built artificial barriers preventing gas from flowing from certain Central and Eastern European countries to others, hindering cross-border competition." In this case, the EU demonstrated its resolve to name and blame unlawful Russian practices. Even so, the EU's impact on Gazprom's behavior remains weak, as Russia continues to threaten the gas supply security of Central and Eastern Europe.

Tricky flows

The EU will be able to fully liberalize its gas market only with fluidity and diversification. This requires integrating member states' domestic markets and the free flow of gas through a dense network of



interconnectors. Poland benefits from several EU political initiatives and financing mechanisms designed to improve the European gas network; these include the Baltic Energy Market Interconnection Plan (BEMIP), the Connecting Europe Facility (CEF) and Projects of Common Interest (PCIs). Over the past seven years, Poland has developed numerous interconnectors with neighboring countries. The Yamal pipeline's reverse physical flow allows Poland to import up to 5.5 bcm yearly from the West on a constant basis (with an additional 2.7 bcm of intermittent capacity). A second interconnection point with Germany, in Lasów, can bring to Poland up to 1.5 bcm of gas per year, while the Czech-Polish interconnector in Cieszyn can supplement Poland with another 0.5 bcm. This 7.5 bcm in total new capacity equals almost half of Polish gas consumption, and planned new interconnectors with Lithuania (1.0 bcm/year capacity), Slovakia (5.7 bcm), Czech Republic (6.5 bcm) and Ukraine (5-7 bcm) will substantially boost Polish gas imports. Yet these are only potential maximum capacities, meaning that the actual volume of gas piped into Poland might be much lower, depending on various factors such as consumption, pricing, availability of spare gas volumes in neighboring countries and access to distribution networks.

However, the origin of the gas Poland would import through these interconnections remains suspect. None of Poland's neighbors is a net gas exporter, increasingly the likelihood that Poland would be *de facto* supplied with Russian gas. If Europe's gas market were fully liquid, the origin of individual gas molecules would not matter. However, since Russia continues to dominate the CEE market and intends to flood Europe with cheap gas via Nord Stream 2, Poland still has reasons to fear a disruption of gas supplies in the event of problems in, or with, Russia. As a result, while CEE gas interconnections remain a basic precondition for the development of Poland's gas market, they constitute only an apparent diversification tool— helpful in managing crises but not in guaranteeing the security of gas supplies to Poland.

Collective inefficiency

Ukraine's 2014 crisis and previous crises in 2006 and 2009 that threatened the stability of Russian gas supplies to Europe prove that the EU—despite its regulatory powers and market integration measures—still cannot protect its member states against Russian manipulation. Moreover, as long as Europe's internal gas market remains ineffective, without dense interconnections or truly diversified supplies, Poland and other CEE countries will be unable to fend off Russian pressure. The 2014 European stress tests showed that the CEE region would suffer if supplies of Russian gas were interrupted. Despite increasing interconnection capacities, Germany's gas exports to Poland might be at risk since, in case of disruptions, German law prioritizes the filling of domestic gas storage facilities (mostly controlled by Gazprom) over European solidarity and the supply of gas to neighboring countries. That reality, along with the current Nord Stream 2 dispute, only heightens the necessity of an internal European gas market based on political solidarity under the Energy Union brand.

Genuine supply diversification

The only truly reliable way Poland can secure its gas supply is to diversify away from Russia. Even if the "no Russia at all" scenario seems difficult to imagine under current market conditions, nothing should stop Poland from achieving this in the long term, as it will strategically benefit Poland politically. The need for alternative supply solutions is all the more urgent given Poland's desire to actively participate in the development of the North-South corridor and become a regional gas hub.

LNG milestone

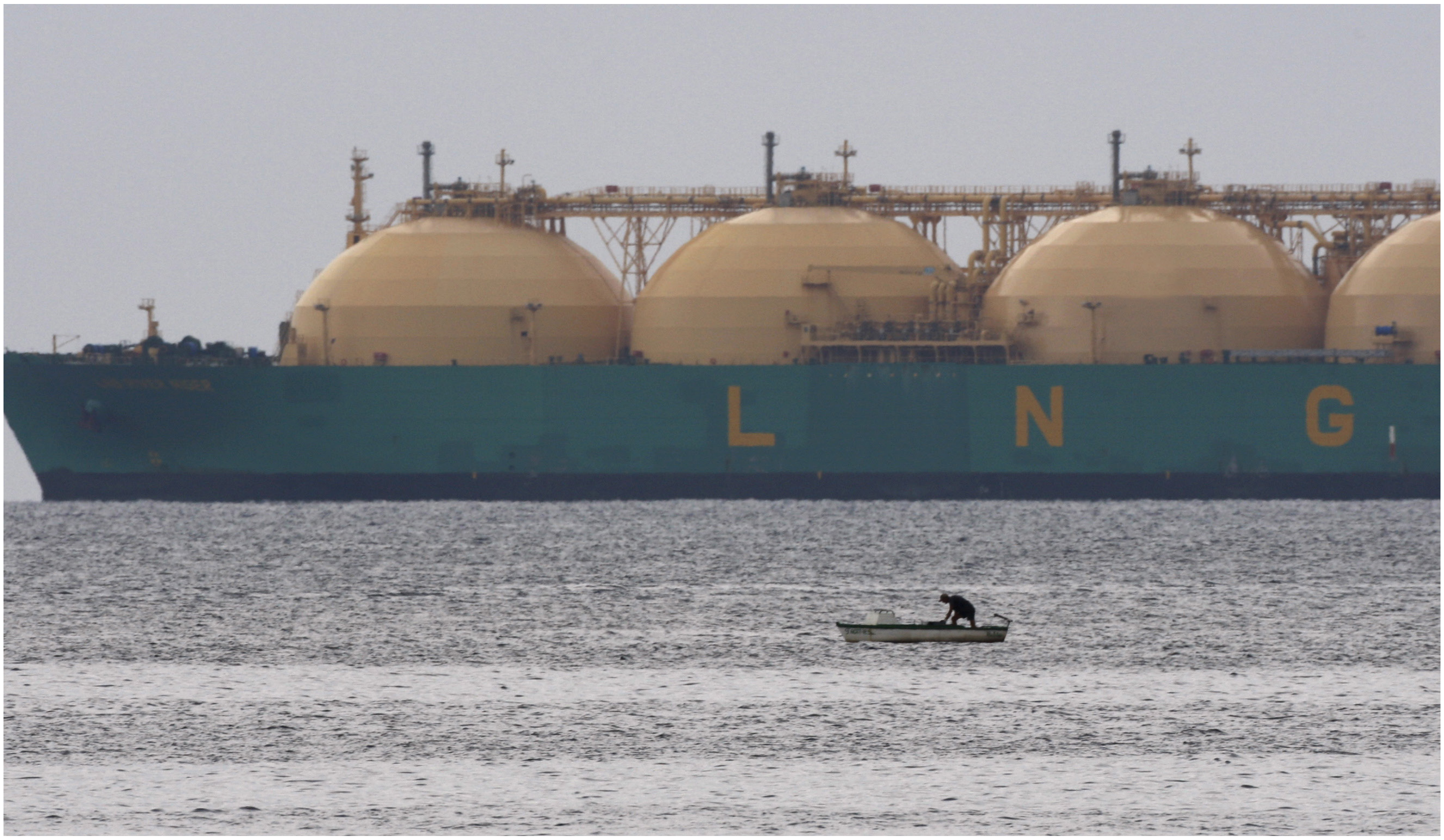
Hardened by experience with Russia's insecure supplies and Europe's limited ability to respond to them, Poland decided to open its gas market to the world. Despite significant investment risks as well as challenges ranging from mismanagement to long delays, all Polish governments since 2009 have supported the idea of building a regasification plant on the Baltic Sea. On 16 July 2016, Poland's new LNG terminal in Świnoujście will receive its first commercial supply of LNG from Qatar, under a contract that calls for importing 1 million tons (around 1.5 bcm) per year until 2034. Some gas might even reach Poland before then if, as Polish media speculate, PGNiG organized additional tenders for LNG supplies. The $640 million Świnoujście terminal comprises LNG receiving facilities from a liquefied gas carrier, two 160,000-cubic-meter cryogenic tanks and LNG regasification facilities, along with gas transmission lines to a pipeline linking the facility to Poland's national transmission system.

Therefore, besides roughly 5.0 bcm in domestic production and a potential 7.5 bcm in European supply, Poland will have at its disposal another 5.0 bcm in annual LNG import capacity, which, depending on demand, could rise to 7.5 bcm. In theory, therefore, Poland might be able to satisfy all its needs with non-Russian gas supplies. Once again, though, such assumptions are excessively optimistic as no LNG facility of this type in the world runs at 100 percent capacity. The European average is about 30 percent, and some volumes will have to be used for regasification purposes, since the Świnoujście terminal utilizes SCV technology. Even so, the new terminal undoubtedly constitutes the most valuable asset in Poland's gas infrastructure that is free of any direct Russian interference. Despite initial fears, neither Nord Stream 1 nor the planned Nord Stream 2 will limit the terminal's development, since these pipelines—which lie outside Polish territorial waters at a depth of 18.5 meters, leave enough margin (13.5 meters) for tankers to reach Świnoujście.

Regional game-changer

The new LNG terminal allows Poland to import gas when needed, in flexible amounts and from the cheapest supplier, comprising an essential element position in Poland's emergence as a regional hub. Neighboring countries have already expressed interest in importing gas from Świnoujście through existing and planned interconnections. Such supplies will contribute to the development of the North-South corridor, connecting Świnoujście with Croatia's proposed Adria LNG terminal through central Poland, the Czech Republic, Slovakia and Hungary. Polish LNG will spur the integration of regional gas markets as well as the coordination of infrastructure projects and the harmonization of market principles and emergency procedures. Clearly, it will also boost the security of gas supplies not only to Poland, but also to all nearby countries, including highly vulnerable Ukraine.

Nevertheless, Poland faces two important challenges. The first is likely competition from cheap Russian gas from the Nord Stream pipelines, which may discourage EU neighbors from buying Polish gas. The second stems from Poland's need to import enough volume to not only satisfy its own needs, but also to ensure stable exports. Baltic Pipe, a submarine pipeline that links the natural gas transmission systems of Denmark and Poland—and allows PGNiG to import gas from Norway where it owns concessions—is one possible solution to these challenges. Poland is currently negotiating with Denmark over the details of this project, which began in 2009 and is supported by the EU as a PCI. Completion of Baltic Pipe as envisioned by PGNiG before 2022—when the Yamal contract expires—will help Poland create a gas hub that, in turn, will help bring prices down. In addition, access to between 3 bcm and 7 bcm (best-case scenario) per year will strengthen Poland as a reliable gas trader.



Ultimate goal

Poland has already done much to build and strengthen its gas market, but it has not yet freed itself from Russian influence—and that won't become a reality until the Yamal contract ends. This means that for the next six years, Poland can expect Russian political and economic pressure against its gas liberalization and diversification efforts. Poland's current government seems determined not only to fend off these Russian attacks, but also to challenge Gazprom by building a European coalition directed against Russia and its harmful European projects. In political terms, Poland will have to balance anti-Russian rhetoric, European adherence and U.S. gas production. Indeed, American LNG is widely seen in Poland as a double source of security: first in the context of actual physical trade with the world's leading gas producer, and second, as a decisive pivot away from Russia—even if only as a speculative supply option—given America's history as a traditional adversary of Russia.

To solidify Poland's choice in turning away from Russia, the country must eventually enlarge its LNG terminal in Świnoujście, not only to increase capacity but also to make its operations more economically efficient. Likewise, Poland should also begin investing in diverse gas-related services like adequate storage facilities and transshipment of gas via smaller carriers. In order to boost competition, the terminal operator should also strive to attract customers other than PGNiG who are willing to buy gas in Świnoujście. Polish Prime Minister Beata Szydło also proposes construction of a second, most probably floating, LNG terminal. Balancing supply and demand on such a large scale will require the passage of key measures by the Polish government. Industry decision-makers, still new to the gas industry, will need expertise from more experienced players including the United States. If all goes as expected, by 2024 Russia will still be trying to sell its gas to Poland—and Poland will finally have the luxury of accepting or rejecting Russian gas on economic terms only.

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