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Marco Siddi

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Abstract

Energy trade is a long-standing pillar of European Union (EU)-Russia relations. Russia is the main provider of oil, gas, and solid fuels to the EU. The EU's demand for reliable energy supplies from abroad and Russia's desire to capitalize on its vast fossil fuels resources have led to strong interdependence in the energy sector. However, within the EU, assessments of the energy relationship with Russia have become more controversial since the late 2000s, and particularly after the Ukraine crisis. The chapter explores the main scholarly debates concerning the EU-Russia energy relationship. It puts the relationship in a historical context and discusses the consequences of the Ukraine crisis, including the measures taken by each side to diversify their partners. The chapter argues

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that the existing path dependencies in the EU-Russia energy relationship, together with market forces, continue to drive bilateral trade. While the focus is mostly on gas trade and geopolitics, the growing relevance of nuclear power and of renewable energy sources is also analyzed.

Keywords

Russia · European Union · Energy · Gas · Oil · Nuclear · Renewable energy · Ukraine · Nord Stream 2 · Energy Union

Introduction

Energy trade is a long-standing pillar of European Union (EU)-Russia relations. Russia is the main provider of oil, gas, and solid fuels to the EU. For some EU member states, Russia is also a supplier of uranium and an important partner in the nuclear energy sector. Soviet Russia began to export fossil fuels to European countries on a large scale during the Cold War. Indeed, some scholars have labelled the emergence of East-West energy networks at this time as the “hidden integration” of Europe in the Cold War era (Högselius 2013, p. 3). The end of the Cold War paved the way for the further expansion of energy trade between EU member states and Russia. The EU’s demand for reliable energy supplies from abroad and Russia’s desire to capitalize on its vast fossil fuels resources led to strong interdependence in the energy sector.

Up until the mid-2000s, this interdependence was broadly regarded as a positive example of post-Cold War cooperation between Russia and the EU. However, within the EU, assessments of the energy relationship with Russia became more controversial after the gas transit crises between Russia and Ukraine in 2006 and in 2009. With the onset of the Ukraine crisis in 2014 and the ensuing deterioration of EU-Russia relations, some member states (such as Poland and Lithuania) have framed energy trade with Russia as a security issue. Nonetheless, and despite serious disagreements between Brussels and Moscow in the security, legal, and normative arenas, EU-Russia energy trade has experienced a considerable rise since 2016, particularly with regard to gas (Henderson and Sharples 2018). This shows that the EU and Russia have remained interdependent in the sphere of energy, which is thus one of the few sectors where a substantial level of cooperation has continued after the Ukraine crisis (Siddi 2018a).

This chapter explores the current state of EU-Russia energy relations, with reference to recent scholarly works and debates on this topic. The analysis proceeds as follows. It begins by addressing some of the main scholarly debates concerning the EU-Russia energy relationship. It then puts the relationship in a historical context and discusses the relevant consequences of the Ukraine crisis, including the measures taken by each side to diversify their energy partners. At the same time, the chapter shows that the existing path dependencies in the EU-Russia energy relationship, together with market forces, continue to drive bilateral trade. While relations in the field of oil, nuclear power, and renewable energy are briefly discussed, most of

the analysis focuses on gas. Gas has been the most politically sensitive commodity due to the vulnerability of some East-Central EU member states (such as Bulgaria or the Baltic States) to potential supply disruptions in the flow of Russian gas. However, such risks are now decreasing as new interconnections among EU countries are being built.

The chapter adopts the premise that energy policy is a complex field where numerous factors play a role. Within the EU, it is an area of shared competence between the Union and its member states (as specified in Article 194 of the Treaty on the Functioning of the European Union), many of which have very different national energy portfolios and diverging attitudes toward Russian energy imports (for an overview of the complexities of EU energy policy, see Schubert et al. 2016). EU and national legal frameworks exist, which are generally oriented toward promoting the competitiveness and liberalization of energy markets. In Russia, the state retains closer control of energy production and supply, but different and at times conflicting interests exist also in the Russian energy sector. Moreover, commercial actors contribute to shaping energy policy and play an essential role in EU-Russia energy trade.

Recent Scholarly Research and Debates

Scholarly literature on EU-Russia energy relations is vast and cross-disciplinary. Recent studies have adopted an international political economy (IPE) perspective (Belyi 2015; Godzimirski 2019) or a framework based on security studies, securitization theory, and constructivist international relations (IR) theory (Szulecki 2018). Other publications have welcomed contributions from economists, political scientists, and geographers in order to provide a comprehensive picture of the topic's complexities (Oxenstierna and Tynkkynen 2014). After the Ukraine crisis in particular, EU-Russia energy relations have (re)attracted the interest of neorealist scholars of international relations, as well as of academics who have applied more nuanced conceptualizations drawn from this IR school, such as geoeconomics (Wigell and Vihma 2016).

While it is not possible to offer an exhaustive and overly schematic account of the recent relevant literature, some overarching trends can be identified. Scholars such as Andreas Goldthau and Nick Sitter (2019) have analyzed EU-Russia relations predominantly from an IPE perspective. They argued that the European Union has approached the relationship mostly as a liberal actor, using regulatory and market power rather than hard economic or geopolitical power (which, in their view, would be more controversial and of dubious benefit to the EU) (► [Geopolitics of Energy](#)). In practice, this means that the EU has envisaged its energy relations with Russia primarily as a trade relationship within a well-regulated framework. This has led to a high degree of interdependence in EU-Russia energy relations which, as Stulberg (2015) and Siddi (2018a) have noted, persisted or even increased despite political crises. At the same time, Boersma and Goldthau (2017) have noted a trend toward

the securitization of EU-Russia energy relations, which could eventually undermine the EU's liberal posture and unravel EU-Russia path dependencies.

While Goldthau, Sitter, and Boersma appear wary of this development, scholars adopting a neorealist perspective have criticized EU-Russia energy interdependence and argued that the EU should take a more strategic approach to relations with Russia. Andrej Krickovic (2015) has claimed that interdependence in the energy sphere has exacerbated security tensions between the two sides. According to him, both the EU and Russia have been worried that in the future interdependence may become asymmetrical; their ensuing efforts to reduce dependence undermine the trust of the other side, thus creating a classical security dilemma. Some studies (cf. Blank and Kim 2016) have argued that energy is an instrument in Russia's aggressive foreign policy – the so-called energy weapon – and described Russia's new pipeline projects as hostile attempts to divide the EU. Many policy papers and popularized analyses echoed this view.

However, many scholars have criticized such “reductionist” interpretations of EU-Russia energy relations. Judge et al. (2016) have highlighted how these interpretations oversimplify the complexity of the relationship by reducing it to the objectives of specific governmental actors, to the diktats of power politics, or to a narrow geopolitical reading of energy security. Similarly, Casier (2016, p. 763) has criticized approaches that frame “highly complex energy relations between the EU and Russia in terms of simple, exclusive geopolitical intentions.” Moreover, Van de Graaf and Colgan (2017) have shown that there are strict limits to the efficacy of the “energy weapon,” whoever attempts to use it. As Sharples (2016) has noted, the existence of a system of long-term energy contracts, commercial relationships with customers, and long-standing production and transportation arrangements between EU and Russian actors increase enormously the cost of using energy as a “weapon” for political goals.

While Russia tends to be described as a geopolitical actor in energy policy (driven by *Realpolitik* and zero-sum thinking), and the EU as a liberal one, recent analyses have added some nuance to these descriptions. Romanova (2016) has shown that different actors shape energy policy in Russia, and, despite the dominant geopolitical paradigm in decision-making, they usually rely on legal and technocratic instruments that are compatible with the EU's normative approach to energy policy. Siddi (2018a) has argued that Russia predominantly deploys geopolitical power in its external energy policy, while the EU resorts to regulatory power. However, he notes that the policies of both sides have recently become more nuanced, with Russia resorting to normative approaches and the EU adopting a geopolitical stance in some aspects of its external energy policy. This interpretation is consistent with recent studies of EU actorness in energy policy, which highlight the evolution of the EU from being a mere regulator into a “catalytic” actor that can intervene strategically in energy policy (Prontera 2019).

Another significant strand of research on EU-Russia energy relations has adopted a constructivist perspective, emphasizing the role of ideas, identities, and discourses. Kuzemko (2014) has explained divergences between the EU and Russia as a function of different ideas regarding the societal role of energy. Whereas in the

EU, energy is seen primarily as a commodity, in Russia it is also conceptualized as a strategic asset that, if managed correctly, can play a central role in strengthening the country's political and economic performance. By focusing on the role of history and identities, Siddi (2017) and Casier (2011) have attempted to explain why EU member states have often taken different stances with regard to the energy partnership with Russia. For instance, this literature has argued that the skeptical stance of many Eastern European member states vis-à-vis the energy partnership with Moscow is deeply influenced by their conflictual historical relationship with Russia. Furthermore, through an analysis of EU-level and Russian discourses, Tichý (2019) has highlighted the influence of norms, ideas, values, and rules in both actors' formulation of their energy policy (► [European Union Energy Policy: A Discourse Perspective](#)).

EU-Russia Energy Relations in a Historical Perspective

Before turning to recent developments in EU-Russia energy relations, it is important to understand how the current EU-Russia interdependence in the energy sector originated. Today's path dependencies and energy trade patterns are the result of a long historical process. Substantial exports of Soviet oil and gas to Europe began between the 1960s and the early 1970s. In 1964, the Druzhba oil pipeline became operational and started exporting Soviet oil to countries of the Council for Mutual Economic Assistance (Comecon), notably Czechoslovakia, Hungary, Poland, and the German Democratic Republic. Further pipelines were built to transport gas. In the late 1960s, the attenuation of tensions between the Eastern and the Western blocs allowed Western European states to develop economic relations with the Soviet Union. In 1966, the Urengoy gas field – the largest in the world, with a deposit of 9.9 trillion cubic meters – was discovered in the Soviet Union. These gas reserves proved particularly appealing to Central and Western European industry, which was overly dependent on energy imports from the Middle East (Belyi 2015, pp. 76–77). Following intense negotiations, several Western European countries concluded supply agreements with Moscow, and a transcontinental pipeline network was built to transport Siberian gas to Western Europe (Högselius 2013, p. 3).

In 1968, Austria was the first non-Comecon state to receive gas deliveries from the Soviet Union. West Germany signed a large supply contract the year after, followed by Italy, Finland, and France. Economic incentives for the import of Soviet energy increased after the 1973 oil crisis, when the Organization of Arab Petroleum Exporting Countries proclaimed an oil embargo on sales to several Western states due to their support of Israel in the Yom Kippur War. Meanwhile, other gas fields were discovered in the Soviet Union, which became the world's largest gas producer in 1984 (Belyi 2015, p. 76). Despite the concerns and opposition of the Reagan administration in the United States, energy trade between the Soviet Union and Western Europe continued to increase, thereby challenging the confrontational logic of the Cold War. Most notably, the Urengoy-Uzhgorod pipeline, which was essential for the expansion of Soviet gas exports to Europe, was commissioned in 1984,

during a peak of military tensions between the Eastern and Western blocs (Högselius 2013, pp. 105–134). The volumes of Soviet gas exports rose from 29 billion cubic meters (bcm) in 1983 to 60 bcm in 1989 (Belyi 2015, p. 77).

After the end of the Cold War, energy trade continued to expand rapidly and became the cornerstone of EU-Russia interdependence. During the 1990s, even states that were suspicious of Russia's foreign policy intentions took a positive stance toward Moscow-led energy projects. In 1993, Polish policy makers hailed an agreement with Russia for the construction of the Yamal-Europe pipeline and long-term gas supplies as “the contract of the century” (Gorska 2010, pp. 107–114). The pipeline, shipping Russian gas to Germany and Poland via Belarus, became operational in 1997 and reached its maximum capacity of 33 bcm/year in 2005. Moreover, in the 1990s and 2000s, several Western European energy companies strengthened their partnership and launched new projects with Russian state company Gazprom. In 2001–2002, a joint venture including Gazprom and the Italian company ENI built the Blue Stream pipeline, which carries Russian gas to Turkey across the Black Sea. Most significantly, in 2005 Gazprom and its German partners BASF and E.ON (later joined by the Dutch Gasunie and the French ENGIE) initiated the Nord Stream pipeline project, with the capacity to transport 55 bcm of gas per year from Russia to Germany across the Baltic Sea. Around the same time, several major European importers of Russian gas (including German, Italian, and French companies) extended their long-term contracts with Gazprom.

However, in the second half of the 2000s, political developments had negative repercussions on EU-Russia energy trade. In 2006 and 2009, disputes between Russia and Ukraine concerning the price and the transit of gas caused temporary disruptions in Russian gas supplies to Europe (approximately 80% of these supplies reached Europe via Ukraine; see Pirani et al. 2009). New geopolitical frictions between Moscow and the West accompanied these developments, leading to the growing securitization of political discourses on energy (► [European Union Energy Policy: A Discourse Perspective](#)). The prospect of further NATO enlargement, the Russian-Georgian war of August 2008, and Russia's increasingly assertive foreign policy fueled tensions (for detailed discussion, see Forsberg and Haukkala 2016). The Ukraine crisis of 2014 turned these tensions into open confrontation and also affected the EU's and Russia's posture toward their energy trade.

EU-Russia Energy Trade and the Ukraine Crisis

When the Ukraine crisis escalated in early 2014 and the EU imposed sanctions on Russia, energy security was one of the main concerns among policy makers in Brussels. Russian energy supplies covered approximately 40% of the gas, 33% of the crude oil, and 29% of the solid fuels imported by the EU (Eurostat 2018). Although oil is the most lucrative component of EU-Russia energy trade, gas was seen as the most politically sensitive commodity. This is because gas transportation is technically more difficult and diversifying suppliers requires large, long-term investments into pipelines or liquefied natural gas (LNG) terminals. As

approximately half of the EU's imports of Russian gas were channeled via Ukraine, it was feared that EU energy security would fall victim to the political crisis and that Europe would experience gas shortages such as those caused by the Russian-Ukrainian gas transit crisis of January 2009 (see Pirani et al. 2009). This concern was particularly strong in Eastern European countries that were more dependent on Russian gas supplies, such as Latvia, Bulgaria, and Slovakia.

In this context, the EU and its member states agreed to draft the 2014 European Energy Security Strategy and the 2015 Energy Union framework, which included among their goals the diversification of energy suppliers and strengthening resilience against supply shock-induced energy crises. The implementation of the Energy Union was made into a priority of the newly appointed European Commission presided by Jean-Claude Juncker. The Energy Union focused on increasing energy security and solidarity, creating an integrated EU energy market, improving energy efficiency, decarbonizing the economy, and supporting innovation and competitiveness. In order to strengthen energy security, the Energy Union envisaged the construction of new pipelines – most notably the Southern Gas Corridor (Siddi 2019) – and of LNG terminals to import non-Russian gas. With regard to Russia, the Energy Union framework adopted a cold and wary approach, arguing that “when the conditions are right, the EU will consider reframing the energy relationship with Russia based on a level playing field in terms of market opening, fair competition, environmental protection and safety, for the mutual benefit of both sides” (European Commission 2015; for an analysis of the strategy, see Siddi 2016).

On the other hand, Russia adhered to its Energy Strategy up to 2030, which it had launched in 2010 (Ministry of Energy of the Russian Federation 2010; see Gromov and Kurichev 2014 for a full analysis). According to the strategy, the goal of Russia's energy policy was to maximize the use of domestic energy resources in order to support economic growth, improve the quality of life of the people, and strengthen Russia's position in the global economy. The strategy also stated that the European market will remain the main destination of Russia's energy exports until 2030. At the same time, it envisaged an increase in energy exports to East Asia: by 2030, one quarter of Russian oil exports and one fifth of gas exports were expected to go to East Asia. Arguably, tensions with the West following the Ukraine crisis have increased Russia's urgency to progressively reorient its exports toward Asia. In 2014, Gazprom signed a deal to export 38 bcm/year of gas to China over a 30-year period; construction of the Power of Siberia pipeline, which will transport the agreed volumes, is nearing completion as of late 2019 (► [Geopolitics of Energy](#)). However, as Sharples (2016) has noted, gas exports to China tap into different gas fields and rely on different infrastructure from the ones used for exports to Europe. Hence, competition between China and Europe to secure Russia's gas resources is only apparent, and the EU will remain the main importer for the foreseeable future.

In 2014–2019, a Russian-Ukrainian gas transit crisis comparable to that of 2009 was avoided thanks to successful trilateral negotiations between the EU, Russia, and Ukraine, as well as to Russian and Ukrainian willingness to shelter their lucrative gas trade from the political crisis (Stulberg 2015). As during the Cold War, EU-Russia gas trade continued and even intensified amidst political tensions. Part of the reason

why trade continued is that Russia is at least as dependent as the EU on this energy relationship. Most of Russian oil and gas exports, which are vital to the Russian state budget, are sold in the EU market and cannot easily be reoriented toward other markets. Indeed, the oil and gas pipelines themselves are a physical manifestation of path dependency, given the time and investment necessary to build new pipelines to alternative markets. During the summer of 2015, Western European companies and Russian state company Gazprom even developed a new large-scale project to export Russian gas to the EU, the Nord Stream 2 pipeline. Nord Stream 2 is part of Gazprom's long-term strategy to diversify its export routes to Europe, together with TurkStream (see below). As the European market will continue to be the most important for Gazprom, the company is trying to limit its exposure to potential transit disruptions in Ukraine. This strategy is also functional to the Kremlin's goal of diminishing Ukraine's political leverage over Russia and EU-Russia energy relations.

Nevertheless, the political climate around energy cooperation has remained difficult. Eastern EU members such as Poland and the Baltic States have been fiercely critical of further energy trade with Russia and attempted to shape EU policy accordingly (Siddi 2018b) (► [Energy Governance in the Republic of Poland](#)). In 2015, the European Commission proceeded with an antitrust investigation against Gazprom, which it had launched in 2012 upon Lithuania's request and claim that Gazprom was abusing its monopolistic position in East-Central European markets (see below).

In the last 5 years, the EU made considerable progress in reducing its vulnerability to disruptions in Russian gas supplies while at the same time continuing energy trade with Russia. Some of the most dependent countries have developed alternative routes. Lithuania opened an LNG terminal in late 2014; Latvia expanded its gas storage capacity; Slovakia, Hungary, and Poland have built interconnecting pipelines; and further interconnections have been planned. The possibility of reverse flows of gas from West to East strengthened the energy security of Eastern members; Ukraine benefitted from this technology too. As the Energy Union framework is implemented, interconnections between the energy systems of member states have improved, and the possibility of external supply shocks affecting one or a group of countries has diminished.

At the same time, the EU-Russia gas relationship has been rendered more predictable by the resolution of long-standing disputes, most notably the European Commission's antitrust investigation concerning Gazprom and Russia's complaint at the World Trade Organization (WTO) against some key EU market regulations (the third energy package). As we shall see below, the settlement of the antitrust case between the European Commission and Gazprom has reduced the potential for legal conflict in EU-Russia gas trade and contributed to the integration of the EU gas market. However, disagreements persist among EU member states regarding the desirable EU stance vis-à-vis Russian energy exports, and particularly new infrastructural projects such as Nord Stream 2. The pipeline has caused heated debates within the EU, where some East-Central member states staunchly oppose the project. Conversely, Russia's main import partners in Western Europe seem keen to continue

and even increase their energy purchases from Russia. The United States has intervened in the debate too by threatening to sanction European companies that are involved in Nord Stream 2 and advocating its prospective LNG exports as an alternative. Moreover, the geography of Russian gas deliveries to Europe may partly change in the future. Although Russia and Ukraine signed a new gas transit agreement for another 5 years in December 2019, a gradual shift in gas transit from the Ukrainian route to the Nord Stream and TurkStream routes can be expected in the next years.

Recent Developments in EU-Russia Gas Trade

Russian gas exports to Europe rose to unprecedented records from 2016 to 2018. According to Gazprom's data, around 201 bcm of gas were exported to Europe and Turkey in 2018, compared to 192.2 bcm in 2017 and 158.6 in 2015 (Gazprom 2019). This performance may appear surprising, given the context of political crisis and reciprocal sanctions between the EU and Russia (however, the sanctions only cover restricted and currently marginal areas of the energy sector, such as technology for offshore oil exploration and production in deep Arctic waters). The rise in Russian gas supplies to Europe is due to commercial and contextual factors that are unrelated to politics. From 2015 to 2017, EU gas demand grew considerably to 548 bcm/year in 2017. This is 76 bcm higher than in 2014 (even though it is still below the peak of 585 bcm reached in 2010; see Honoré 2018, p. 1). The economic recovery in Europe, decreasing gas production in the EU, lower Russian gas prices, and the limited availability of non-Russian liquefied natural gas (LNG) in the European market were among the main commercial reasons. Cold winter temperatures and increased coal to gas switching in some European countries (partly due to the growing carbon price in the EU's Emissions Trading Scheme in 2017–2019) also boosted gas demand.

Growing gas demand has been accompanied by decreasing indigenous production in the EU, which was 120 bcm in 2018 (approximately a 40% decrease in the last 10 years; see European Commission 2019a, p. 9). This was mostly due to the progressive depletion of North Sea resources and cuts in production in Groningen, the Netherlands, because of related seismic activity. Europe's growing demand for external gas supplies has been satisfied primarily by Russian gas. Following pressure from the European Commission and its customers, Gazprom has partly renegotiated the terms of its supply contracts by adopting market-based pricing instead of oil-linked prices. Together with the ruble's weakness (which reduces the domestic cost base for Gazprom in US dollar terms), this has made Russian gas more competitive (Henderson and Sharples 2018, pp. 3–5).

The availability of sufficient reserves and spare infrastructural capacity have also played a significant role. While Gazprom was able to sustain increased supplies of gas to the EU, other exporters such as Algeria (the third largest external supplier of gas to the EU after Russia and Norway) saw a 14% decline in pipeline exports in 2017. Not only did Gazprom use the Nord Stream and Yamal-Europe (via Poland/Belarus) pipelines at near full capacity, it also increased the gas it

exported via Ukraine, reaching a total volume of 93.5 bcm in 2017, the highest ure since 2011 (Interfax Ukraine 2018). Despite the continuation of political tensions with the EU, Russian companies felt confident enough to implement new infrastructural projects for the export of gas to Europe and beyond. This included the launch of the Yamal LNG project in December 2017 and the construction of the TurkStream and Nord Stream 2 pipelines.

Furthermore, the competition of LNG with Russian gas has been weaker than expected. This was the result of delays in some LNG projects and especially of higher LNG demand in Asia (particularly China), which remains the primary market for LNG due to higher demand and prices. The availability of LNG in the European market began to increase from 2017 and may continue to do so in the next 5 years depending on demand in Asia. In a scenario of lower Asian demand, LNG from the United States (the closest prospective large supplier to Europe) could compete with Gazprom and other pipeline suppliers for some shares of the European market (Henderson and Sharples 2018, pp. 11–16). Russian gas shipped via pipeline tends to be cheaper than LNG, which explains why European commercial actors have preferred and may continue to prefer additional imports of Russian gas. Growing EU imports of Russian gas do not necessarily have a negative impact on European energy security thanks to the possibility of using the large spare capacity in LNG terminals in order to switch to LNG imports from other countries, depending on the commercial or political circumstances.

New Projects for EU-Russia Gas Trade: Yamal LNG and TurkStream

While EU-Russia energy trade has increased, new large-scale energy projects led by Russian companies have generated controversy within the EU. The different perspectives of member states on Russia, particularly its reliability as an energy supplier, have played an important role in the controversy (Siddi 2018b). The broader political crisis in EU-Russia relations has influenced discussions, sometimes overshadowing considerations on the functioning of energy markets and trade. While some politicians and commentators continue to fear the deployment of a hypothetical Russian “energy weapon,” the availability of different suppliers, the integration of the EU’s internal energy market, and Russia’s dependence on this market for its national budget have strengthened considerably the EU’s resilience and decreased its exposure to “energy blackmail” (Van de Graaf and Colgan 2017).

The new projects – the Yamal LNG project and the TurkStream and Nord Stream 2 pipelines – aim primarily to uphold or increase the shares of Russian companies in the European market in the face of growing competition. They also serve the purpose of diversifying export routes and of bypassing transit countries where gas trade with Russia has become heavily politicized (such as Ukraine) – largely as a result of Russia’s foreign policy. According to the European companies that support them, these projects are commercial endeavors that contribute to European energy security. According to their detractors, they are political instruments to increase Russia’s leverage over Ukraine and Eastern Europe. While the projects are significant also

from a strategic viewpoint, it is unlikely that they will coerce Ukraine or other countries into a Russian sphere of influence or undermine the EU's energy security. The main risk for the EU is that if member states take incompatible and intransigent stances vis-à-vis the projects, and exaggerate their political significance, the EU's internal coherence will be undermined.

In 2018, the first large project that can export Russian LNG to the European market was launched – even though most of its gas might in fact go to Asia. Yamal LNG is expected to produce 16.5 million tons of LNG per year from 2019. The project was developed by a consortium including the Russian Novatek, the French Total, the China National Petroleum Corporation, and the Silk Road Fund. Yamal LNG is also significant because Novatek, the Russian consortium leader, is a private company, unlike state giant Gazprom. The project was completed on time and within budget despite being targeted by US sanctions. This was possible thanks to Chinese lenders, who swiftly replaced Western investment, and the switching of financing from dollars to euros (Siddi 2018c).

The TurkStream project is also nearing completion. Together with the Nord Stream pipelines, TurkStream is part of Gazprom's strategy to reduce drastically gas transit in Ukraine. It will transport 31.5 bcm/year of gas to Turkey and the EU along a route that goes from Russia's Black Sea coast to European Turkey under the Black Sea. In November 2018, the laying of the offshore part of the pipeline was completed. The pipeline began shipping gas to Turkey in January 2020. Most likely, the first string of TurkStream (with half the total capacity) will replace Russian gas exports to Turkey that are currently transported via Ukraine and the Balkans. The second string of the project is intended for exports to Southeast and Southern Europe. This section of the project would end at the Turkish-EU border, where it will be linked to the EU's system via a Turkey-Bulgaria interconnector and an onward pipeline from Bulgaria to Hungary through Serbia (Sharples 2019, p. 6).

The Nord Stream 2 Controversy

Nord Stream 2 is the new Gazprom-led project that has aroused more controversy in the EU. With a capacity of 55 bcm/year, it will carry gas from the Russian Baltic Sea coast to Germany via an offshore route running parallel to the already existing Nord Stream pipeline. Following its completion, the total capacity of the Nord Stream route will rise to 110 bcm/year, making it the main export corridor for Russian gas to Europe (Goldthau 2016, Lang and Westphal 2017). The project was announced in the summer of 2015 by a consortium including Gazprom, German companies Uniper and Wintershall, France's ENGIE, Austria's OMV, and Dutch/British Shell. Its proponents argued that Nord Stream 2 will connect Gazprom's newer gas fields in the Yamal Peninsula to its bigger customers in Western Europe through a shorter route without transit-related risks and fees. However, the project swiftly attracted criticism. Opponents argued that it will consolidate Gazprom's position in the European energy market and weaken Ukraine's role as a gas transit country, and thus Ukraine's strategic leverage vis-à-vis Moscow in the ongoing political crisis.

Poland, the Baltic States, Romania, and Slovakia have consistently opposed the project. Their opposition tends to be explained by a number of factors including strategic reasons (notably the loss of their current role as transit countries), the intention to diversify energy imports away from Russia, and concerns about being bypassed by the main flows of East-West energy trade (Lang and Westphal 2017, pp. 28–34; Strachota 2015). Long-standing fear of Russia, and of German-Russian cooperation, also plays a role in Poland and the Baltic states (Siddi 2018b). Slovakia sees its substantial revenues from transit fees as being endangered.

On the other hand, Germany and Austria have emerged as the main advocates of the project. France and the Netherlands appear acquiescent to it as well due to the involvement of domestic corporate interests. The main argument that has been put forward to support the project is that it follows commercial logic by linking supplier and customers with competitively priced gas (cf. Hecking and Weiser 2017). It has been argued that Nord Stream 2 can provide cheap gas to compensate for dwindling North Sea gas production. It will also meet further demand that will stem from the closure of nuclear power plants in Germany and the need to switch energy consumption from more polluting coal and oil to gas (► [Energy Governance in Germany](#)). The controversy around Nord Stream 2 reflects the tension, within the EU, between economic-driven and politically driven approaches to energy relations with Russia. On the one hand, the economic drivers of the relationship advocate the construction of the pipeline, citing commercial reasons. On the other hand, opponents argue against the project by focusing on political arguments, such as solidarity with Ukraine and Russia's aggressive foreign policy. Some scholars also argue that the project will be unprofitable (Neumann et al. 2018).

Caught between opposing views at member state level, EU institutions have taken different stances toward Nord Stream 2 (see also Siddi 2018d). The European Commission opposed the project. In June 2017, it requested a mandate from the Council of the EU to negotiate an agreement with Russia concerning the operation of Nord Stream 2, arguing that it was necessary to define a legal framework. The request seemed to respond to pressure by member states opposing Nord Stream 2 and had the apparent goal of limiting Gazprom's ability to use the pipeline's capacity. However, the Legal Service of the Council concluded that there was no legal basis for an EU-Russia agreement concerning the project. It also stated that the third energy package does not apply to the Nord Stream 2 pipeline (Yafimava 2017). The reasoning of the Legal Service of the Council reflected existing precedents: pipelines reaching the EU from third countries have been built in accordance with the United Nations Convention on the Law of the Sea, whereas the third energy package applied to pipelines on land within EU territory (► [The European Union in Global Energy Governance](#)). Based on this practice, in the case of Nord Stream 2, the package would apply to adjoining, land-based pipelines in the EU. Moreover, the EU energy market has been built around the principles of liberalization and competition, and political attempts to block new projects run counter to this logic.

However, the Commission – with the support of some Eastern members – insisted that a legal void existed. It partly adjusted its argument to claim that, following the introduction of the third energy package in 2009, its prescriptions concerning

ownership unbundling and third party access applied not just to EU territory but also to the territorial waters of EU member states. This contradicted the earlier practice of applying the United Nations Convention on the Law of the Sea to regulate offshore pipelines until they reached land in the EU. In order to enforce its reasoning, the Commission proposed amending the Gas Directive, which is part of the third energy package, to make sure it would also apply to new offshore pipelines in member states' territorial waters. This stratagem would create uncertainty and hinder the operations of Nord Stream 2, thereby delaying the project (Yafimava 2019).

In order to become law, the amendment of the Gas Directive required the support of a qualified majority of member states (i.e., 55% of member states voting in favor and representing at least 65% of the total EU population). In 2017 and 2018, this seemed highly unlikely, as the opposition of Germany, France, and several other smaller EU members ensured the existence of a blocking minority. A turning point was reached in February 2019, when France suddenly voiced its support for amending the Gas Directive. The reasons for the change in the French position are unclear and have been described by some as a strategy to obtain concessions from Germany on other, unrelated EU-level issues (FAZ 2019). The French stance urged Germany to seek bilateral negotiations with France in order to achieve a compromise. Eventually, a common text was agreed that made the Gas Directive applicable to EU territorial waters but left the member state where the pipeline first lands in charge of implementation and of authorizing exemptions (which, however, have to be agreed upon by the European Commission). The Franco-German compromise was then endorsed by EU institutions (Gurzu 2019). The amendments became EU law, and member states are expected to transpose them into national law by May 2020.

To complicate matters further, the United States has intervened in the Nord Stream 2 debate through both Congress legislation and President Trump's fiery rhetoric. Legislation passed by Congress in the summer of 2017 threatened to sanction European companies involved in Nord Stream 2 and in other energy projects with Russian involvement. This led to a diplomatic argument with the German and Austrian governments. Berlin and Vienna argued that the US extraterritorial sanctions were illegal and that "Europe's energy supply network is Europe's affair, not that of the United States of America" (German Foreign Office 2017). Following negotiations with European diplomatic envoys, the 2017 legislation was softened with the addendum that sanctions would be imposed at the US president's discretion in coordination with US allies (US Congress 2017). In 2018, however, the US Congress passed a new draft law that could make the sanctions mandatory without requiring the approval of the US president or other coordination. Opponents of Nord Stream 2 saw the law as a powerful instrument to stop the project. Conversely, supporters of the pipeline consider the proposed extraterritorial sanctions as an illegal attempt to interfere in EU energy policy and promote US LNG exports as an alternative, regardless of their potentially higher cost for the EU and uncertainty about available volumes (► [Geopolitics of Energy](#)).

Despite the risk of US sanctions, construction of the Nord Stream 2 pipelines started during the summer of 2018 and progressed in the following year and a half.

Following US-Russia negotiations in the fall of 2018, US punitive measures appeared less likely. However, in December 2019 the US Congress approved sanctions against Nord Stream 2, leading the Swiss constructor Allseas to suspend the laying of the pipeline in the Baltic Sea, when nearly all the work had been completed. US sanctions will probably fall short of the objective of preventing the project but will delay it by several months because Gazprom was forced to find another vessel with the capability of laying pipes in deep-sea waters (Platts 2019b). US sanctions also soured relations between Washington, on the one hand, and Germany, Russia, and other European countries on the other. The main reason is that, through their extraterritorial sanctions, the United States have interfered in European energy security and political affairs and violated international law (cf. European Parliament 2020).

The international controversy surrounding Nord Stream 2 and the opposition of some member states and the European Commission may thus lead to delays in its implementation, with gas deliveries starting well after January 2020, the date that was initially planned by Gazprom. Denmark delayed its permission to lay the pipeline in the Danish continental shelf for several months but eventually granted its authorization in late October 2019. In November 2019, Russian Deputy Prime Minister Dmitry Kozak stated that Nord Stream 2 will start shipping gas to Germany in mid-2020 (cited in Platts 2019a). This means that Gazprom will have to continue to export large volumes of gas via Ukraine into the 2020s (Pirani 2018).

Ukraine's Current and Future Role in EU-Russia Energy Trade

Many EU politicians consider the preservation of Ukraine's gas transit role as the most politically pressing issue in the light of Gazprom's new projects. Preserving gas transit in Ukraine would contribute to EU energy security because Russian gas would continue to be channeled to the EU via a commercially and strategically important route, in addition to those prioritized in Gazprom's export strategy (Nord Stream, TurkStream, and Yamal-Europe). While the ongoing conflict between Moscow and Kiev raised the risk of transit disruptions, the flow of gas to the EU has in fact continued and even increased. Moreover, the EU insists on upholding this transit route out of solidarity with Ukraine. Ukraine has earned \$2–3 billion a year from transit revenues, which are important to its economy. The construction of alternative pipelines could deprive Kiev of this income, weakening it both financially and strategically vis-à-vis Russia. Ukrainian leaders fear that their country will lose its transit role in the 2020s.

Ukrainian concerns increased in February 2018 when Gazprom stated that it would start a termination procedure for its supply and transit contracts with Ukraine. Gazprom's statement was made in response to the outcome of a long-standing arbitration process concerning contracts with Ukraine's state company Naftogaz. After 2014, Gazprom and Naftogaz had filed claims against each other at the Arbitration Institute of the Stockholm Chamber of Commerce. The claims concerned the implementation of supply and transit contracts. A series of pronouncements left

Gazprom with a net debt of \$2.56 billion – a considerable sum but only a fraction of what the two companies were claiming from each other. Gazprom stated that it wished to terminate the current gas transit agreement with Ukraine in this context, before arguing that it would use all legal means to challenge the outcome of the arbitration (Eyl-Mazzega 2018). However, Gazprom's statement appears unlikely to have any concrete effects before additional infrastructure becomes available for its gas exports. Both in 2017 and in 2018, Gazprom channeled around 90 bcm/year via Ukraine. In order to maintain these export volumes, Ukrainian transit pipelines are indispensable at present.

Most likely, Ukrainian transit capacity will also be necessary after Nord Stream 2 and TurkStream are operational. Certainly, when these projects become fully operational, gas volumes via Ukraine will diminish markedly, but they will not disappear. Following Chancellor Angela Merkel's request that Ukrainian pipelines remain operational, in April 2018 Gazprom itself stated that at least 10–15 bcm/year will be exported via Ukraine. In fact, a larger export capacity via Ukraine will have to be maintained both to meet higher wintertime demand and to face the possibility of technical issues along the other routes. Additional Ukrainian transit will be necessary during the maintenance periods of the Nord Stream and TurkStream pipelines. Southern European customers of Gazprom have also expressed a desire to continue their imports via Ukraine (Pirani 2018, pp. 14–16). Furthermore, as long as the regulatory restrictions imposed by the EU on Gazprom's use of the OPAL pipeline remain in force, it will be more difficult to redirect gas flows from the Ukrainian to the Nord Stream route.

In 2019 Russia, Ukraine and the European Commission conducted negotiations on the transit of gas in Ukraine from January 2020. A breakthrough was achieved in December 2019. Gazprom and Naftogaz signed a 5-year transit contract, in which the Russian company agreed to ship a minimum of 65 bcm of gas in 2020 and a minimum of 40 bcm/year in 2021–2024, including a ship-or-pay clause (meaning that Gazprom would have to pay for the minimum contracted volumes even if it ships less). As part of these negotiations, Gazprom also agreed to pay the net debt resulting from the Stockholm arbitration, while Naftogaz promised to release the Gazprom assets it had seized in Europe in order to enforce the Stockholm arbitration court ruling. Both companies also agreed to drop reciprocal court claims that have not concluded, with the exception of those concerning assets in Crimea (Isachenkov 2019).

Hence, gas transit in Ukraine will certainly continue after 2019, but with smaller volumes than in the 2000s and 2010s. While transit volumes will diminish, it is also important to note that Ukraine is no longer as exposed to disruptions in gas supplies from Russia as it was in the past. Ukraine's gas demand has fallen from around 65 bcm in 2011 to approximately 35 bcm in 2017. Most of the current demand is covered by domestic gas production and imports from the EU (even though the latter include reverse flows of Russian gas). This means that while Ukraine will probably lose most of its leverage as a key transit country, Russia has also lost much of its leverage over Ukraine's energy security.

From the perspective of the EU's energy security and resilience, Ukrainian gas transit is a more complex and multifaceted matter than may appear from mainstream political debates. On the one hand, the EU feels obliged to show solidarity with Ukraine, which is also a fellow member of the Energy Community, an international organization that aims at extending the EU's energy *acquis* (Schubert et al. 2016, pp. 220–222) (► [The European Union in Global Energy Governance](#)). As argued, maintaining Ukrainian transit will contribute to the diversification of import routes. On the other hand, the Ukrainian pipeline network is old, with large parts of it dating back to Soviet times, and requires extensive investments. The new Russian gas fields are located further north than the West Siberian fields that have traditionally supplied gas to Europe and where production is now declining. These factors make the Nord Stream route to the large North-Western European markets shorter and thus more competitive in terms of transportation costs (Pirani 2018, p. 8, 16). Furthermore, for the EU, maintaining reliance on Ukrainian transit means remaining hostage to the heated Russian-Ukrainian relationship for its gas supplies, which is a controversial strategy from a commercial and energy security perspective.

Settling Disputes: The Antitrust and WTO Cases

Agreement on the rules regulating energy trade is particularly important for EU-Russia energy relations, where the two sides have developed partly different approaches and priorities. The EU has focused on the liberalization of its energy market, promoting competition between energy importers in order to achieve security of supply and cheaper prices for domestic consumers (Goldthau and Sitter 2019). On the other hand, as a major energy exporter, Russia has focused on the security of demand by minimizing price volatility, countering the competition of other suppliers, and concluding long-term contracts with its customers, which help cover the costs of building and maintaining the necessary export infrastructure (Siddi 2018a, pp. 1556–1557).

The different priorities of the EU and Russia regarding energy trade have complicated the pursuit of shared practices and norms. In East-Central Europe, Gazprom has been accused of monopolistic behavior, which led the European Commission to investigate the company's practices. In 2011, the Commission launched an antitrust investigation and subsequently accused Gazprom of abusing its dominant market position in Eastern Europe. According to the Commission, Gazprom's contracts in the region hindered the cross-border flow of gas, which resulted in the fragmentation of the regional market and different prices from country to country. However, in the ensuing negotiations, Gazprom committed to removing contractual barriers to the cross-border flow of gas (Stern and Yafimava 2017). It also linked gas prices in Eastern EU members to benchmark prices in Western European hubs. Gazprom's commitments will likely adjust prices in Eastern European markets that are isolated due to the lack of infrastructure to market-based prices in Western Europe. As a result, in May 2018 the European Commission ended its antitrust case against Gazprom, stating that it had secured substantial commitments from the

Russian company on more competitive prices and greater market integration for Eastern European member states (European Commission 2018).

By making these commitments, Gazprom has avoided a fine being imposed by the European Commission. However, the Russian company had to make important concessions and essentially change its marketing strategy from oil-linked contracts to more market-based and, at present, lower prices. Failure to honor the commitments could still lead to Gazprom being fined over the period until 2026. The resolution of the antitrust investigation on terms that are favorable to the EU, and are also accepted by Russia, has removed a major source of contention in EU-Russia energy relations. The EU's competition policy has led Gazprom to adapt its *modus operandi* in the European market in a way that is functional to market integration and competition.

Moreover, in mid-August 2018, the WTO published its ruling on Russia's complaint against the EU concerning certain provisions of the third energy package (see WTO 2018) (► [The European Union in Global Energy Governance](#)). The European Commission introduced the third energy package in 2009 with the aim of integrating the EU's energy market and increasing competition. One of its central requirements is unbundling the ownership of energy production and supply from that of energy transportation. In April 2014, Russia filed a complaint with the WTO about this legislation, arguing that it treated Russian gas and gas transportation services unfairly. However, the WTO ruled that the main principles of the third energy package are lawful. On the other hand, it also stated that some of its aspects were not in line with WTO norms. Most notably, this concerned a 50% cap imposed by the EU on the utilization capacity of the OPAL pipeline, a land-based continuation of the Nord Stream pipeline, which de facto artificially constrained the use of the latter. The WTO ruling also stated that the EU's Trans-European Networks for Energy (TEN-E) strategy, which aims at linking the infrastructure of EU members, was inconsistent with WTO law because it provided most favorable conditions for the transportation of natural gas of any origin other than Russian (thus discriminating against the latter).

While both the EU and Russia have appealed to the WTO's Appellate Body some legal interpretations of the WTO ruling, the latter has helped clarify the rules of EU-Russia gas trade. The EU was satisfied with the overall WTO assessment of the third energy package. In the years after Russia filed the complaint, Gazprom had largely adjusted its strategy to this new legislation. For the Russian company, the WTO pronouncement on the TEN-E strategy and the OPAL pipeline are seen as the main achievements. The WTO's view on OPAL strengthens the case for fuller utilization of the Nord Stream pipeline and can constitute a precedent for the Nord Stream 2 project. However, some EU member states – notably Poland – criticized this interpretation and challenged the Commission's decision to allow Gazprom to use OPAL's full capacity at the European Court of Justice (ECJ). In September 2019, the ECJ ruled in Poland's favor, thus reinstating a cap on OPAL's capacity used by Gazprom (for details, see General Court of the EU 2019). The ECJ's judgments seem to contradict the WTO ruling, which may again increase uncertainty concerning the regulatory framework of EU-Russia gas trade.

Nuclear Power

While fossil fuels, and gas in particular, have been at the center stage of debates on EU-Russia energy relations, nuclear power also plays a significant and growing role. There are several reasons for this. First, the Russian State Atomic Energy Corporation (Rosatom) is an important provider of enriched uranium to European customers. In 2017, it was the second largest supplier of uranium to the EU after Canada, providing 15% of EU imports (WNA 2018). Russia owns approximately half of the world's uranium enrichment capacity and is therefore a major provider in enrichment services (Oxenstierna 2014, p. 158). Second, several Soviet-built nuclear reactors and nuclear power plants are operational in EU member states, including the Czech Republic, Slovakia, Hungary, Bulgaria, and Finland (as well as 15 nuclear reactors in neighboring Ukraine). Russia supplies fuels to these reactors, and, in some cases, it also repatriates spent fuel (Oxenstierna 2014). Third, and most significant from a political perspective, Rosatom plans to build new reactors in Hungary and Finland. It is also building a new nuclear plant in Belarus and another one in Russia's Kaliningrad region, both near the border with Lithuania (with the goal of exporting part of the electricity production to the EU market).

Rosatom's new projects are part of a broader strategy to expand nuclear power production domestically and export Russian nuclear technology abroad. Rosatom's strategy dates back to 2006, when the Russian government launched an ambitious program to increase nuclear and reduce gas power generation. Rosatom has already secured contracts to build about 20 reactors abroad over the next two decades, mostly in Asia and the Middle East (see WNA 2019). The company's portfolio includes over one quarter of globally ongoing civilian nuclear power projects, making Rosatom the largest provider in this strategic sector (Aalto et al. 2017).

While Russia had not built a nuclear reactor for over two decades after the 1986 Chernobyl accident, the nuclear power industry remains one of the country's main high technology industries and has been considered a priority sector in the modernization policy launched in 2009 (Oxenstierna 2014, p. 150). Contrary to developments in some EU members such as Germany, the accident at Japan's Fukushima nuclear power plant in 2011 has not led to a revision of Russia's plans in the nuclear sector. Russia has a competitive advantage in this sector due to its low costs of producing uranium and the availability of state funding for new projects, both domestically and abroad. The main type of reactor currently produced and installed by Rosatom is the VVER, which is comparable to Western pressurized-water reactors (whereas production of RBMK reactors – the type installed at Chernobyl – stopped after the 1986 accident).

Rosatom's planned reactors in Hungary and Finland are significant for several reasons. Both projects were contracted relatively recently, in 2013–2014, and have remained practically unaffected by the political tensions surrounding the Ukraine crisis. They are expected to become operational in the 2020s. Both projects are taking place in EU member states that rely considerably on nuclear power for electricity production (35% of domestically produced electricity in Finland and 53% in Hungary). Rosatom committed to arranging a €10 billion loan, repayable

until 2044, for the construction of the two new reactors in Hungary, which would cover most of the related costs (Aalto et al. 2017, p. 402).

Moreover, Rosatom's contracts in Finland and Hungary provide a key EU-area reference for its international activities (► [Energy Governance in Finland](#)). They represent a diplomatic triumph for Russia, as they increase political cooperation with the host countries due to the long-term nature and strategic significance of the contracts. Rosatom and advocates of the proposed reactors in the EU argue that they are functional to EU plans to decrease greenhouse gas emissions because they will allow replacing electricity generation from fossil fuels (Aalto et al. 2017, pp. 388–395).

Renewable Energy

Both the European Union and Russia have agendas to increase domestic production and consumption of non-hydrocarbon energy sources. The EU's targets for 2030 include a 40% reduction of fossil fuel emissions compared to 1990 levels, 32% of energy consumption from renewable sources, and an improvement of energy efficiency by 32.5% (European Commission 2019b). The targets set in Russia's Energy Strategy up to 2030 are much more modest (► [Energy Governance in Russia: From a Fossil to a Green Giant?](#)). The strategy only limits carbon dioxide emissions in order not to exceed the level of 1990 by 2030. The target for electricity production from renewables was 4.5% for 2020 excluding large hydropower (and 20% including it) but was later revised to a more realistic 2.5% (IRENA 2017, p. 25). Support schemes were also introduced for renewable energy (Smeets 2018).

Improving energy efficiency has become a priority of the Russian government due to the high energy intensity of the Russian economy. The government is also promoting the productive utilization of associated petroleum gas in order to curb the practice of gas flaring (burning raw gas that comes to surface during crude oil extraction). Gas flaring volumes in Russia are very high, but the government has planned a 50-fold increase in related emission fees, which should lead to the productive utilization of 95% of associated petroleum gas by 2030 (Gromov and Kurichev 2014, pp. 27–30). Improving the energy intensity of industrial production and curbing gas flaring would considerably limit Russia's greenhouse gas emissions and improve its energy efficiency.

Moreover, Russia is planning to limit domestic consumption of fossil fuels for two main reasons: improving environmental security and freeing part of its oil and gas production for more lucrative sales in foreign markets. To increase non-hydrocarbon energy production, Russia's 2030 Energy Strategy envisaged the development of nuclear power plants (mainly) in European Russia and hydroelectric power plants in Eastern Siberia and the Far East, as well as other renewable energy sources. So far, Russia lags behind developed countries in the use of renewable energy. However, in many remote Russian regions, renewables would offer the best solution for decentralized consumers. Some limited positive steps have been made in the last 10 years. In 2010, the RusHydro company received the official status as head

state company in the field of renewable energy and developed a few hydropower, wind power, and geothermal power plants (Gromov and Kurichev 2014, p. 35).

More recently, Russian institutions appear to have become more concerned about climate change and the urgency of the energy transition. In 2018, the Ministry of Natural Resources and Environment published a report highlighting the catastrophic environmental and economic consequences of climate change for Russia, including droughts, epidemics, food shortages, and the release of radioactive substances from melting permafrost. This refuted the argument according to which Russia would benefit economically from a warmer climate. Despite concerns that the energy transition will reduce Russia's income from fossil fuel exports (cf. Smeets 2018), Russia ratified the Paris climate agreement in September 2019 (Digges 2019a).

EU-Russia cooperation in the field of renewable energy sources is still limited (Khrushcheva and Maltby 2016). A promising area appears to be that of biofuels, where Russia can significantly increase its exports to the EU (Tynkkynen 2014). Moreover, the North-West of Russia boasts a large renewable energy resource base in geographic proximity to the EU. Developing this resource base could offer win-win prospects for both Russia and the EU: Russia could develop its renewable energy industry with Western technology at a lower cost, whereas EU member states could achieve their 2030 renewable energy targets by importing electricity produced from these sources in Russia (Boute and Willems 2012). EU companies have already become involved in the development of Russian wind power. Notably, Italian energy company Enel is building Russia's largest wind park in the Murmansk region and developing two more in the Stavropol and Rostov regions (Digges 2019b).

In terms of resources, Russia has the potential to become a leader in renewable energy production and consumption, including solar, wind, hydro, geothermal, and bioenergy (Tynkkynen 2014). The traditional forms of EU-Russia energy cooperation and existing path dependencies lead to a focus on the hydrocarbon sector. However, with the energy transition in Europe advancing, and the vast challenges posed by climate change, we can expect a partial and progressive shift of energy cooperation toward renewables. Russia's vast renewable sources offer bright prospects for cooperation and the involvement of Western companies and technologies, which would also shift EU-Russia energy cooperation toward a more sustainable framework.

Conclusion

Energy trade with Russia is one of the EU's largest and most strategic commercial relationships. For Russia, energy exports to the EU are the most significant component of its foreign trade. Current energy flows from Russia to the EU originated during the Cold War and grew exponentially since the 1980s. Fossil fuels, particularly oil and gas, are the most important energy sources in the relationship. Nuclear technology and fuel also play a significant and growing role. Moreover, Russia's vast and currently unexploited renewable energy sources offer new avenues for potential EU-Russia energy cooperation in the coming years. The nefarious effects of climate

change, which are acknowledged by both EU and Russian institutions, could induce them to gradually shift the focus of their energy trade from fossil fuels to renewable energy.

For the time being, however, the EU and Russia have to manage their dependence on the import (for the EU) or export (for Russia) of fossil fuels. This trade has become more sensitive from a political perspective with the beginning of the Ukraine crisis and the broader confrontational trend in EU-Russia relations. The interdependent nature of EU-Russia energy relations, which was previously portrayed as a success of post-Cold War cooperation, is now seen by some politicians and scholars alike as a source of vulnerability for either side. This perception is particularly strong in some East-Central European members of the EU (Poland, the Baltic States), where the current political leadership tends to view EU-Russia energy trade as an instrument of Russian political pressure.

However, the path dependencies that have been forged over decades made the EU-Russia energy relationship resilient even to the deep political crisis that began in 2014. The necessity to preserve trade flows from Russia led the EU to take an active role in relevant negotiations. The European Commission successfully negotiated transit and supply agreements between Russia and Ukraine in 2014–2015. Despite the political crisis, EU-Russia energy trade continued and even reached new record volumes in 2017 and 2018. At the same time, the European Commission managed to settle an antitrust dispute with Gazprom through talks, thereby enforcing EU rules for commercial operations in the internal market. The fact that Gazprom has an interest in preserving its lucrative exports to the EU, and that it was put under pressure by other prospective suppliers (such as LNG producers), contributed to the EU's goals.

The main outstanding issue in EU-Russia energy relations concerns the routes through which Russian gas will be exported to the EU in the future, particularly the fate of Ukrainian transit pipelines. The EU has supported Ukraine politically and financially since Russia's annexation of Crimea in 2014, and preserving imports via Ukraine would be consistent with the strategy adopted thus far. Ukrainian transit pipelines constitute an important and currently indispensable corridor for EU gas imports from Russia. However, they are in need of renovation, and their commercial use is exposed to political crises between Kiev and Moscow. The completion of Nord Stream 2 and TurkStream could make them largely (but not completely) redundant within a few years.

Tripartite talks between Russia, Ukraine, and the European Commission have taken place in 2018–2019 and have secured the continuation of substantial gas transit in Ukraine in 2020–2024. The new 5-year transit deal meets the economic interests of all sides involved in the negotiations. Gazprom needs substantial Ukrainian transit capacity to satisfy the demand of its European customers and defend its shares of the EU market from competing suppliers. Ukraine needs to prove that it remains a reliable transit country in order to secure both a profitable business and continued EU support. Furthermore, the EU greatly benefits from the unhindered flow of competitive Russian energy through several routes, including Ukraine. If the EU and Russia intend to improve their relationship, energy

cooperation can play a significant role thanks to existing networks and the potential for further mutually beneficial interaction.

Cross-References

- ▶ [Energy Governance in Finland](#)
- ▶ [Energy Governance in Germany](#)
- ▶ [Energy Governance in Russia: From a Fossil to a Green Giant?](#)
- ▶ [Energy Governance in the Republic of Poland](#)
- ▶ [European Union Energy Policy: A Discourse Perspective](#)
- ▶ [Geopolitics of Energy](#)
- ▶ [The European Union in Global Energy Governance](#)

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