RUSSIAN NATURAL GAS EXPORTS: THE SHIFT TOWARD ASIA

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Abstract

Russia's use of natural gas energy policy to influence decisionmakers in Europe is becoming more precise, but it is Russia's expansion of natural gas exports to Asia that poses a greater risk to the United States and its allies. As the largest natural gas exporter in the world, Russia has been able to turn on and off the flow of natural gas to countries within Europe to influence decisionmakers in Western-aligned nations, and its diversification of natural gas delivery methods to Europe will allow Russia greater precision in applying this persuasive tool to specific governments. Russia's push into the Asian market through natural gas pipelines to China and expansion of liquid natural gas exports is more dangerous, though, as it not only weakens the proclivity of US allies in Asia to speak out against Russian aggression, but also strengthens the bonds between Russia and China and demonstrates the capability of an arctic trade route. The best counter to the inroads being made by Russia in Asia is for America to step up its own liquid natural gas output and strengthen both its energy ties to allies and to China through its own exports while at the same time laying the groundwork to lead the way in long-term clean energy exports.

As the United States shifts toward a foreign policy shaped by strategic power competition, the economic tools of statecraft become increasingly important not only for the United States, but for Russia and China as well. Russia's use of natural gas exports as a persuasive tool is one of the best demonstrations of the strategic advantage created through economic relationships by these great powers, and is a tool which the country has been increasingly diversifying in both Europe and Asia. While this increasing diversification in Europe has dominated the headlines, it is Russia's growing energy relations with China that are of greater concern to the interests of the United States. The US and its allies can mitigate the threat posed by enhanced Sino-Russian energy relations by shifting to dominate the liquid natural gas market in the short-term, and looking toward long-term solutions in expediting and sharing both nuclear and renewable energy programs.

Russian Natural Gas

Through the state-owned energy company Gazprom, Russia is the largest exporter of natural gas in the world and has an estimated 32% of the world's natural gas reserves; which makes the importance of this export "hard to overestimate" (Russia 2021, Kutcherov, et al. 2020, Hill 2002). The current pipeline structure to export natural gas makes Russia geopolitically and geoeconomically dependent on Europe to keep importing Russian gas, but also allows Russia to use its ability to cut off natural gas supply to leverage countries within Eurasia, especially the former Soviet states (Pritchett 2021, Kutcherov, et al. 2020, Blank and Kim 2016, 21-22). To maintain its leverage while also reducing the potential weakness of relying solely on European natural gas pipelines, Russia is increasing liquified natural gas (LNG) capabilities using both internal Russian companies (often financed by Chinese banks) and by partnering with the Dutch-owned Shell company (Downs, et al. 2018, Netherlands Enterprise Agency 2021). LNG allows

for greater export diversification as it can be transferred via traditional shipping methods instead of requiring an immobile pipeline (Kutcherov, et al. 2020, Pritchett 2021). Russia's latest Energy Strategy also calls for increasing exports into the Asian market to further diversification (Kutcherov et al 2020).

Natural Gas in Europe

Russia has a history of using its energy exports as a geopolitical tool, most often by restricting gas supplies to "potentially recalcitrant governments" (Blank and Kim 2016, 27). This can be seen most recently in Ukraine, when in January 2015 Russia blocked natural gas flow through Ukrainian pipelines in an attempt to force European nations to end EU sanctions against Russian actions in Crimea and limit the hope of Ukrainian self-rule (Blank and Kim 2016, 29). At the same time, Russia seized Ukrainian energy platforms in the Black Sea and later gained de facto control over most of Ukraine's coal mines and underground gas storage sites in the Donbas region (Blank and Kim 2016, 2-3).

It is this history of weaponizing natural gas pipelines that makes Russia's expansion of energy export to Europe concerning. Historically, the preponderance of Russian gas entered Europe through Ukrainian pipelines such as the the Urenjog-Pomary-Uzhgorod and Soyuz pipelines, for which Ukraine received payment as a transit country (Kutcherov, et al. 2020, Pritchett 2021, Nordstream 2: MEPs Call for Halt to Russian Gas Pipeline 2021). Russia could not cut off Ukraine without also cutting off much of southern Europe and Turkey. Thus, there is a geopolitical incentive for Russia to diversify the methods by which it supplies gas to Europe in order to allow for threats to cut off supply to specific pipelines to have a more precise impact.

At the same time, Europe's energy needs have evolved. The demand for total European energy consumption is projected to decrease 13% by 2040 as Europe shifts toward renewable

energy sources (Kutcherov, et al. 2020, Stang 2015, 1) At the same time, gas reserves in the Netherlands, the United Kingdom, and Denmark are shrinking, and energy production within Europe is decreasing (Kutcherov, et al. 2020, Stang 2015, 1). The drop in production has led to an increased need for more natural gas imports despite the drop in energy consumption, which in turn provides an opportunity for Russia to increase exports to Europe (Kutcherov, et al. 2020). In 2019, natural gas from Russia to Europe ran through five main pipelines in Ukraine, Belarus, Germany, and Turkey, which in total have a capacity of almost 190 billion cubic meters (bcm) per year (Kutcherov, et al. 2020). In late 2019, the Turkstream pipeline came online with a capacity of 31.5 bcm per year, which for the first time provided natural gas to Southern Europe without transiting through Ukraine (Pritchett 2021, 4, Schoen and Krijger 2019). The Turkstream pipeline marks a significant shift in the geopolitical and negotiating capability of Russia to use natural gas to leverage influence, as Ukraine can now be cut off without eliminating gas supply to Southern Europe (Pritchett 2021, 4).

More controversial than Turkstream is the Nordstream 2 pipeline from Russia to Germany, which, when finished, will provide another 55 bcm in annual capacity to Europe (Schoen and Krijger 2019, 26). The EU condemns the nearly complete Nordstream 2, calling it a "political project that poses a threat to European energy security and the efforts to diversify energy supply" (Schoen and Krijger 2019, Nordstream 2: MEPs Call for Halt to Russian Gas Pipeline 2021). Given Russia's track record with using natural gas supply to pressure governments and the sympathetic history of eastern Germany toward Russia, the finalization of Nordstream 2 poses a significant risk to geopolitical balance of Europe in the short term, and has already damaged Berlin's status as a trusted negotiator on behalf of the EU toward Russia in the eyes of many Central European nations (Van der Togt 2020). As Europe continues to reduce its

dependence on fossil fuels and diversify imports through LNG, though, it is unclear how long this risk to geopolitical influence will last, or just how strong it will be.

Natural Gas in Asia

The increasing Russian natural gas exports in Europe are troubling, but it is Russia's energy growth in Asia that poses an even greater concern. Increased cooperation with China "has become one of Putin's hallmark foreign policies," and China's increasing need for energy presents a prime opportunity for Russia to reduce its dependance on European markets (Teft 2020, 15, Blank and Kim 2016). As China is shifting away from coal, it is likely to shift toward natural gas as a cleaner energy alternative; which makes an attractive growing market for Russia (Kutcherov, et al. 2020). Already, China is Russia's main source of funds and largest single energy customer (Downs, et al. 2018, 44). If other Asian nations such as Japan, India, and South Korea also open import opportunities, it could create a 3 trillion cubic meter annual market potential, which Russia could then use as a geopolitical lever in the same way it currently uses European pipelines (Kutcherov, et al. 2020).

Headway has already been made on this front with the Power of Siberia pipeline launched in December 2019, which is "the centerpiece of Moscow's strategy to develop the Far east and the means by which the world's largest gas exporters connects for the first time with its largest gas importer" (Downs, et al. 2018, 47). This pipeline is a physical demonstration of the $400 billion 30-year energy agreement signed in 2014 between Russia and China which promised an exchange of 38 bcm of gas per year (Weitz 2014, 80, Kutcherov, et al. 2020, Chappel 2019). Still partly under construction, the Power of Siberia pipeline will eventually join a 3,000 km section of Russia with 5,111 km of pipes in China, and transmit an estimated 18.9 bcm each year (China Starts Building Southern Part of China-Russia East Gas Pipeline 2020,

Chappel 2019). The Power of Siberia pipeline is unique for Russia in that it funnels natural gas exclusively to China, and not to multiple countries like the pipelines in Europe (Downs, et al. 2018, 9-10). This fundamentally alters the strategic opportunities available to Russia to use the pipeline as a persuasive tool against China, who has also financed a significant portion of the project (Downs, et al. 2018, 27).

Additional energy opportunities in Asia are also available to Russia in the form of LNG exports. Russia has already expanded LNG production in the Arctic through the Yamal LNG facility which supplies LNG to Europe and to Asia through arctic channels (Downs, et al. 2018, 13). Russian energy firm Novatek was able to completion construction on Yamal LNG despite US and European sanctions against it and leading shareholder Gennady Timchenko solely because of Chinese financing, which resulted in Chinese companies holding more than 20% stake in the facility (Downs, et al. 2018, 24-25). This has not only enabled Russia to bypass western sanctions to increase LNG production, but has generated business for 45 Chinese firms and manufacturers and has furthered China's goal of developing a 'polar Silk Road' through arctic shipping channels that take an average of twenty days less to transit goods to Europe than transit through the Suez Canal (Downs, et al. 2018, 26).

China itself presents a large market for LNG, as estimates suggest that LNG imports to China could double to over 126 million tons by 2030, or roughly 25% of the global LNG market (Trakimavicius 2019). Although diversified in LNG suppliers such as Australia, Qatar, Malaysia, and Indonesia, China still receives the majority of its LNG through the South China Sea (Country Analysis Executive Summary: China 2020). The ability to import LNG through the 'polar Silk Road' while bypassing the South China Sea also reduces the effectiveness of any influence the US exerts to limit Chinese commerce through the South China Sea.

The Asian market presents opportunities beyond China for LNG market expansion, as Japan, India, and South Korea all currently use LNG to satisfy the entirety of their natural gas consumption (Kutcherov, et al. 2020). Japan in particular is the single biggest importer of LNG from the Russian Sakhlin-2 LNG facility in Russia's Far East, and imports roughly 9% of its natural gas from Russia (Downs, et al. 2018, 38). The Abe administration in Japan identified energy as an area of cooperation with Russia, and attempted to use energy projects to improve its relationship with Russia (Downs, et al. 2018, 36-38). As a result of this attempt, Japan "deliberately refrained from provoking Moscow by imposing no more than symbolic sanctions on the grounds that Japan is engaged in peace treaty negotiations with Russia" (Downs, et al. 2018, 36). If other US allies in the East follow this model, they too may become "less willing to challenge Moscow's policies regarding Ukraine and other issues" (Weitz 2014, 86).

Despite being more modest on the surface, Russia's ventures into Asia, and with China specifically, mark a significant turning point in Russian economic and geopolitical persuasion opportunity. As such, it is the largest economic threat Russia poses in its attempts to expand energy exports and establish greater political influence with its neighbors. The US has made modest attempts to hinder the development of Nordstream 2, establishing sanctions under the Trump administration against the pipe-laying ship Fortuna which were lifted by President Biden in March 2021, but has said very little on the world stage in regards to the Power of Siberia pipeline, and has taken even less action (Nord Stream 2: Biden Waives US Sanctions on Russian Pipeline 2021).

Potential US Response

America has a variety of tools at its disposal that could be used to limit the effectiveness of Russia's attempts to use energy export as a pressure point, even if it cannot prevent the

relationships from being established. In 2017, the United States shifted from being an importer of natural gas to an exporter, and is the second-largest exporter of natural gas behind Russia (Natural Gas Explained: Natural Gas Imports and Exports 2021). What it lags behind in net exports, the United States makes up for in increasing LNG exports; American LNG will likely compose 20% of the world market for LNG in the near future, and LNG is much more portable than pipeline natural gas (Schoen and Krijger 2019). The United States needs to capitalize on the LNG market to both European and Asian allies to provide an alternative to Russian natural gas pipelines. Doing so will provide an alternative energy source and limit the effectiveness of Russian threats to cut off the gas supply to countries who speak out against their policies.

This tactic will be less effective in China, which is already less likely to be influenced by Russian threats. The best options America faces in reducing the strength of the partnership created between Russia and China through energy trade are difficult and likely to be less directly effective than the promises made to allies via a robust LNG export framework. One of these options is to normalize energy trade relations with China. Tariffs on US LNG imports resulting from the trade war with China increased "Chinese interest in the development of a second cross-border natural gas pipeline and Russia's Arctic LNG-2 project" (Downs, et al. 2018, 18). If US policy makers remove barriers to US LNG development and enhance supply of LNG to Asia, it would provide an alternative energy source for China and reduce the ability for Russia "to use gas as a diplomatic weapon in the future" in the region (Downs, et al. 2018, 40).

The other option is to take the supply of US LNG to the extreme and flood the energy market in Asia, which would create an oversupply and drive down the price. The startup cost for energy export into Asia is high, and a drop in market price may change the cost-benefit ratio for Russia in favor of stopping progress in the region, but this would also negatively impact

American suppliers. A final, and ideal, the option is to develop and distribute clean energy solutions to undercut Russian natural gas altogether, but this is a long-term solution unlikely to make an impact on short-term influence capacity.

Economic policy has a significant impact on geopolitics, and Russia has effectively demonstrated this with its use of natural gas supply to shape politics in Europe, as shown in Ukraine. As Europe transitions to clean energy, Russia has increasingly, and worryingly, shifted toward Asia, and China in particular. The risks posed to US global interests by a stronger Sino-Russian relationship forged through natural gas relationships are significant, but the US and its allies can minimize the long-term impact by dominating liquified natural gas in the short term and investing in nuclear power and renewable energy developments in the long-term.

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