

FRIENDS IN NEED: GEOPOLITICS OF CHINA-RUSSIA ENERGY RELATIONS

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The highlight of Russian President Vladimir Putin's visit to Shanghai in May 2014 was the signing of a 30-year accord to supply China with natural gas through a new pipeline from the Russian Far East. It was no spur-of-the-moment agreement in response to Western threats over the Ukrainian crisis, but rather the product of a decade-long negotiation. From the start, the logic was clear: connect the Russian Far East's large untapped natural gas reserves to China's voracious appetite for energy. In fact, I worked on the financial and technical feasibility of such an arrangement some 17 years ago at Mobil Oil Corporation (now ExxonMobil).

But until the last half decade, Russia's entire energy transportation infrastructure had been geared to shipping oil and natural gas westward to Europe, not eastward to Asia. The new accord between China National Petroleum Corporation (CNPC) and Gazprom marked another milestone in Russia's shift away from Europe and towards Asia. The deal clears the way for the development of the Russian Far East's giant Chayanda natural gas field and the completion of a pipeline, called the Power of Siberia, which will carry 38 billion cubic meters (bcm) of natural gas per year to China starting in 2018. That is the equivalent to more than a quarter of Russia's current natural gas exports to Europe. Russia eventually hopes to boost those exports to over 60 bcm per year.¹

Beijing and Moscow have long discussed supplying Russian energy to China. As early as 2000, they had already envisioned potential pipeline routes that would link Russia's Siberian oil and natural gas fields to China's Daqing oilfields, from which existing pipelines could then deliver the imported oil and natural gas to the rest of China. In 2006, the two countries held talks to build two natural gas pipelines with a total capacity of 70 bcm. But neither side could agree on a price to be paid for the natural gas. Parallel negotiations over Russian oil exports also were bogged down.

The 2008 global financial crisis changed all that. Up until then, Russian firms primarily relied on credit and financing from Western banks and oil companies. But those sources quickly dried up.² At the same time, once sky-high global energy prices nosedived. Russia turned to China. The two countries reached a deal in 2009 under which Russia would export to China 15 million metric tons per year (about 300,000 barrels per day) of oil for 20 years in

¹ "Russia and China seal historic \$400bn gas deal," RT, May 21, 2014, <http://rt.com/business/160068-china-russia-gas-deal/>; "China, Russia's Gazprom sign gas supply agreement," Reuters, May 21, 2014; James Marson, "Russia and China in Major Natural-Gas Supply Pact," *Wall Street Journal*, Mar. 22, 2013.

² Even without the global financial crisis which caused energy demand to fall, Western oil majors already found it very difficult to operate under Russia's endemic corruption and state interventions.

exchange for \$25 billion worth of loans from China Development Bank to Rosneft and Gazprom, Russia's state-run oil and natural gas companies, respectively. With Russian oil production dipping that year for the first time since the 1990s, Moscow no doubt felt pressure to strike a deal. Having long underinvested in exploration to replace aging and depleting fields, Russia's energy companies needed money to develop new oil and natural gas reserves in the Russian Far East. They also used a portion of their newly acquired funds to build a spur pipeline from Russia's trunk Eastern Siberia-Pacific Ocean (ESPO) pipeline into China. That spur pipeline symbolically opened in September 2010 and oil began flowing through it in January 2011.³



Another wave of energy deals between China and Russia was concluded in late 2010. They covered a broad range of issues. China Huadian Corporation, a Chinese state-owned enterprise and one of China's five major power utilities,

³ Highlighting the importance of the new pipeline, Chinese President Hu Jintao and Russian President Dmitry Medvedev attended its opening ceremony in September 2010. "Pipeline begins supplying oil from Russia to China," AFP, Jan. 1, 2011; David Winning and Shai Oster, "China, Russia Strike \$25 Billion Oil Pact," *Wall Street Journal*, Feb. 18, 2009; Andrew E. Kramer, "Russia Seeks to Trade Oil for Loans From China," *New York Times*, Oct. 29, 2008; "Russian Energy Ministry to present China with two oil pipeline routes," FBIS-SOV-2003-0227, Feb. 27, 2003, Moscow Interfax; Xu Yihe, "China, Russia To Start Building Crude Pipeline '03-Report," Dow Jones Newswires, Apr. 18, 2000; Michael R. Gordon, "The Gusher That Wasn't In Russia," *New York Times*, Sept. 5, 1997, pp. D1, D3.

and Russia's TKG-2, a regional utility, agreed to develop a joint power project in the Russian city of Yaroslavl. At the same time, CNNC Jiangsu Nuclear Power Corporation contracted with Russia Atomic Energy Corporation to design the third and fourth nuclear reactors at the Tianwan Nuclear Station. The two countries also made headway on the export of Russian energy to China. CNPC signed an agreement with Rosneft that settled issues related to the supply of Russian oil for the new spur pipeline to Daqing. Meanwhile, Gazprom revealed that CNPC had agreed to begin discussions for a long-term contract to take over 30 bcm of natural gas from the Russian gas exporter.⁴

The next flurry of energy deals began in 2013. But preparations for it began long before that. In 2003, a collection of Russia's independent oil companies and BP, a British oil major, pooled their Russian assets to form a new company called TNK-BP. Among TNK-BP's most valuable assets was a 62.8 percent interest in the Russian Far East's huge Kovykta natural gas field, just west of Lake Baikal. Most industry experts considered Kovykta's proven reserves to be the best source for natural gas exports to Asia. By 2007 Moscow wanted those reserves back and began to pressure TNK-BP to sell. Eventually, Moscow forced TNK-BP into bankruptcy and Rosneft bought the company's assets, including Kovykta, in March 2013.⁵

Thus, Rosneft was well positioned to make new deals with China in 2013. Rosneft's first agreement was to double its shipment of oil to CNPC to 30 million metric tons per year (about 600,000 barrels per day). In return, CNPC agreed to prepay Rosneft \$60 billion for its future oil deliveries. Those prepaid funds came in handy, because it had just spent over \$40 billion to acquire TNK-BP's assets and needed the cash to service its massive debts and to invest in new exploration. Still, the deal demonstrated the worth of the ESPO pipeline and its spur to China.

Moscow's next two deals raised eyebrows even further. Historically, Russia had been reluctant to permit Chinese companies from taking direct stakes in Russian oil and natural gas fields. But last September it allowed CNPC to acquire a 20 percent interest in Novatek's Yamal liquefied natural gas (LNG) project in Russia's Arctic region. In exchange, CNPC agreed to purchase at least 3 million tons of LNG from the project. Even more notable, CNPC and Rosneft agreed to form a joint venture to explore for and produce oil in East Siberia, which contains vast deposits extending hundreds of miles north from Lake Baikal. Those deposits are considered to be some of Russia's most valuable untapped energy assets. The creation of the joint venture, in which CNPC holds a 49 percent stake, seemed to herald a shift in Russia's thinking about China (and, to cynics, Russia's continued need for Chinese capital).⁶

RUSSIA'S PIVOT TO CHINA: FROM EUROPE TO ASIA

For Moscow, the latest round of energy deals with China seems well timed. Given Russia's actions in Crimea and Ukraine in 2014, European countries have begun to seriously reconsider their reliance on Russia, particularly for natural gas. In May 2014, representatives from Europe's biggest economies met in Rome to discuss how they could reduce that dependence. And though they agreed that it would take a long time before that dependence could be truly reduced, the turn in European sentiment away from Russia was clear.⁷

For its part, Russia has long been worried about its reliance on European energy demand and has sought to diversify its customer base. Even before the Ukrainian crisis, stagnant demand and increasing regulatory pressure in Europe had already motivated Russia to seek other outlets for its energy resources. That is why it began discussions with China and Japan in the early 2000s to help finance a new pipeline that could transport the Russian Far East's oil and natural gas to Asia. A number of different routes were considered. At one point, Japan agreed to help finance the construction of the \$11.5 billion pipeline. But when Russia announced its desire to build a spur pipeline into China before it finished the final phase of the trunk line to the coast, Japan balked. Tokyo feared that

⁴ Simon Hall and Owen Fletcher, Beijing, "Moscow Boost Ties On Energy," *Wall Street Journal*, Sept. 28, 2010.

⁵ Andrew E. Kramer, "Moscow Presses BP to Sell a Big Gas Field to Gazprom," *New York Times*, Jun. 23, 2007.

⁶ Wayne Ma and Lukas Alpert, "Russia Lets Down Guard on China," *Wall Street Journal*, Oct. 19-20, 2013, p. A8; "Rosneft gives China access to East Siberia oil," AFP, Oct. 18, 2013; "Russia and China conclude new energy deals," Economist Intelligence Unit, Jun. 24, 2013; Vladimir Soldatkin and Andrew Callus, "Rosneft pays out in historic TNK-BP deal completion," Reuters, Mar. 22 2013.

⁷ "G7 drafts energy options to Russian gas," Deutsche Welle, May 6, 2014, <http://www.dw.de/g7-drafts-energy-options-to-russian-gas/a-17616173>; Henrik Böhme, Opinion: Less Russian gas - whatever the cost, Deutsche Welle, May 2, 2014, <http://www.dw.de/opinion-less-russian-gas-whatever-the-cost/a-17609203>.

it would end up paying for a pipeline to China.⁸

Ultimately, Russia built its pipeline and did so in two phases. Begun in 2006, the first phase took three years to complete and connected its Siberian oil fields to Skovorodino. The second phase, which brought the ESPO pipeline to a new terminal near Vladivostok on the Sea of Japan, took another three years to finish. But almost two years before construction on the second phase concluded in December 2012, the spur pipeline to Daqing was already operational. Until then, Russia transported its oil exports to China mainly over rail lines—a tedious, inefficient, and sometimes hazardous process.

The second big reason behind Russia's pivot to China was the rise of new competitors in the global energy market: Australia and the United States. All across Australia's northern coast, consortia of international energy companies have been developing new offshore natural gas fields to produce LNG. Within the next two years, over 80 bcm of natural gas capacity is slated to come online. That new supply is expected to be followed by similar volumes of natural gas from the United States. American energy companies, exploiting hydraulic fracturing (or fracking) technology, have produced a torrent of natural gas from shale deposits in the United States. That has led those companies to push for government approval to construct LNG terminals so that they can export their output to the world. (Washington seems willing, but approval has been slow due to environmental assessments.) Clearly, new American and Australian LNG supplies will challenge Russia's energy ambitions. And, if so much LNG came to market at the same time, it would depress global natural gas prices and dent Russia's state coffers, which are highly dependent on royalties and taxes derived from energy production. Therefore, Russia's deals to lock in Chinese demand have been as much about economic necessity as they have been a response to tensions with the West.

CHINA'S PIVOT TO RUSSIA: FROM SELF-SUFFICIENCY TO DIVERSIFICATION

For China, its new energy relationship with Russia has also proved practical. Until the last decade or so, China's dealings with Russia have largely centered on arms sales and cooperation in international organizations. But with its own rising tensions with Japan and the United States, the expansion of China's relations with Russia to include trade in energy (and other raw materials) has given China a bit more diplomatic room for maneuver than it otherwise would have, since the West may be cautious not to push China further into Russia's arms.

Nevertheless, China has another, more important reason to collaborate with Russia: China's concern over its access to energy resources. Beijing's approach to Chinese energy security has long prioritized access to energy resources above all other considerations. That way, China can always count on a reliable energy supply, even in a crisis. For decades, China achieved that goal by being *shíyóu zì chǎn zìyòng* (oil self-sufficient). To outsiders, China's preoccupation with access seemed unwarranted, given the end of the Cold War and the benefits of *Pax Americana*. But *Pax Americana* may be precisely why China has felt the need to hedge. Chinese leaders who came of age in the 1990s well remember the volte-face of the West after their crackdown on internal dissent in Tiananmen Square in 1989 and the interference of the United States when they fired missiles into the Taiwan Strait to sway Taiwan's presidential elections in 1996. That is not to say that fear drives China's energy security policy, but rather that Beijing appreciates the value of reliable access to energy resources in an unpredictable world.⁹

But by the mid-1990s, China could no longer remain self-sufficient in energy. Its economy was growing too fast for its big state-owned energy companies, like CNPC, China Petroleum and Chemical Corporation (Sinopec), and China National Offshore Oil Company (CNOOC), to keep up. They were too slow to bring new domestic reserves online and reluctant to let foreign energy companies into China's most-prized oil and natural gas fields. (Foreign companies operating in China were usually relegated to less-promising or more technically difficult fields.) Hence, Beijing directed its state-owned energy companies to seek new energy resources abroad and provided them with low-cost financing to do so. Since then, they have gained access to energy resources all over the globe, particularly in places like Africa, Latin America, and the Middle East. In some countries, Chinese companies have benefited

⁸ Miroslav Mareš and Martin Laryš, "Oil and natural gas in Russia's astern energy strategy: Dream or reality?" *Energy Policy* 50 (2012), pp. 436-448; Ministry of Energy of the Russian Federation, *Energy Strategy of Russia for the Period Up to 2030* (Moscow: Institute of Energy Strategy, 2010), pp. 20-23; David Pilling and Isabel Gorst, "Tokyo threat to withdraw from \$11 billion oil pipeline," *Financial Times*, Apr. 30/May 1, 2005, p. 4; James Brooke, "China and Japan Jockey for Share of Russian Gas," *New York Times*, Nov. 3, 2004.

⁹ Edwin Chan, "Analysis - Is China's energy policy about to grow up?" Reuters, Feb. 21, 2003.

from lower competition, due to restrictions placed on Western oil majors by international sanctions or hostile local governments.¹⁰

In other cases, China has been willing to pay a premium for access. One example has been China's interest in developing a pipeline that extends from Turkmenistan's southern natural gas fields to China's eastern coast. The pipeline stretches some 7,000 km (over one-sixth the circumference of the Earth). Construction on a 4,000-km section of it inside China, called the West-East pipeline, began in 2002 and was completed a few years later. (Since then, a second span of the West-East pipeline was built in 2011 and a third was begun in 2012.) Another 1,300-km segment running through Kazakhstan was finished in 2009. But the pipeline has inherent drawbacks. Because the Turkmenistan-to-China pipeline is actually created from a patchwork of new and existing pipelines, rather than from a single unified design, there is a lot of engineering variability throughout its length. That invariably reduces its reliability and raises its long-term costs. Those higher costs are likely to make shipping natural gas through the entire pipeline unprofitable, especially if China persists in capping natural gas prices in its eastern cities. In fact, that is why foreign investors pulled out of the West-East pipeline project in 2004. Yet China seems determined to complete the entire pipeline. That is because what the pipeline does is give China access to Central Asia's natural gas over a land route that cannot be interdicted by foreign control of the seas.¹¹

Even as Chinese energy companies have expanded their reach geographically, they have also done so in another way. Rather than compete with foreign firms in markets abroad, Chinese energy companies have sometimes found it easier to acquire them (or parts of them) to access new energy supplies. At first, China's aggressive approach to acquisitions met resistance in North America and Europe. In 2005, CNOOC's \$18 billion bid for Unocal failed and threatened to derail China's acquisition strategy. But after the global financial crisis, Chinese acquisition overtures found greater receptivity, in part because Chinese energy companies changed their tactics. Rather than trying to acquire a whole company, they targeted minority stakes and joint ventures that were less likely to sound alarms in Western capitals. In doing so, Chinese energy acquisitions surged to an average of \$23 billion per year over the last five years. State-controlled China Petrochemical acquired a 40 percent interest in Repsol's Brazilian oil assets for \$7.1 billion in 2010. PetroChina (a unit of CNPC) agreed to buy a 20 percent stake of Royal Dutch Shell's Groundbirch natural gas development in Canada in 2011. That was followed by Sinopec's \$2.5 billion deal to acquire an interest in Devon Energy's shale-gas fields in the United States and PetroChina's \$1.6 billion buyout of BHP Billiton's holding in Woodside Petroleum.¹²

By gaining access to energy resources around the world, China has diversified its energy supply base. It did so first through geographic reach and then through corporate acquisition. China may have shifted its energy security strategy from one of self-sufficiency to diversification, but its long-time goal to ensure access to energy resources remains the same. Seen in this light, China's interest in access to the Russian Far East's oil and natural gas reserves is a natural extension of its energy diversification. China already imports over half of the oil it consumes, and most of that comes from the Middle East. The turmoil in that region due to the Arab Spring has only made Beijing more anxious to secure oil resources elsewhere, including Russia. Similarly, with half of its natural gas imports coming from Turkmenistan in 2012, China sees its recent agreement to import natural gas from the Russian Far East as a way to reduce its reliance on a single geographic area.

¹⁰ China's oil self-sufficiency ended in 1993 when it began to import oil to meet domestic demand. Mark Magnier, "China Stakes Claim for Global Oil Access," *Los Angeles Times*, Jul. 17, 2005; Christoph Bluth, "Energy needs shape China's external relations," *Jane's Intelligence Review*, Oct. 2002, pp. 40-43; Han Zhenjun and Dong Jun, "Economic Overview: China 'Injects Oil' Into the 21st Century" FBIS-CHI-2002-0419, Apr. 19, 2002, Beijing Xinhua Domestic Service.

¹¹ Peter Leonard, China, "Kazakhstan unveil landmark gas pipeline," Associated Press, Dec. 12, 2009; Xu Yihe, "Oil Companies Quit China Pipeline Project," *Wall Street Journal*, Aug. 4, 2004, p. A11; "China Will Help Build Oil Pipeline With Kazakhstan," Associated Press, May 18, 2004; "China Begins Construction on 4,200 Kilometer Long Gas Pipeline Project," FBIS-CHI-2002-0704, Jul. 4, 2002, Beijing Xinhua; Gaye Christoffersen, "China's Intentions for Russian and Central Asian Oil and Gas," *National Bureau of Asian Research Analysis* 9:2 (1998).

¹² Other big Chinese deals included PetroChina's \$1.7 billion acquisition of Chesapeake Energy's shale-gas assets in the United States in 2010 and 2011 and Sinopec's \$2.2 billion buyout of Daylight Energy in 2011. Huang Kaixi, "Oil Companies Using New Logic in Their Overseas Acquisitions," *Caixin Online*, Jan. 27, 2014, <http://english.caixin.com/2014-01-27/100634322.html>; Sterling Wong, "What's Behind China's Global Oil and Gas Buying Spree? And Who's Next?" *Minyanville*, Mar. 22, 2013, <http://www.minyanville.com/articles/print.php?a=48857>; Yvonne Lee, "PetroChina Buys Stake in Shell Canada Shale Asset," *Wall Street Journal*, Feb. 2, 2012; Tom Orlik, "China's Softly, Softly Energy Grab," *Wall Street Journal*, Jan. 4, 2012; Alison Tudor, "China's Big Oil Goes Shopping," *Wall Street Journal*, Jan. 4, 2011, p. C3.

Today, China needs Russian energy supply almost as much as Russia needs Chinese energy demand. That mutual need and a shift in natural gas prices in Europe finally broke the logjam that had been holding up the pipeline deal between China and Russia. The two sides had been deadlocked over what price China would pay for Russia's natural gas. Two years ago, Russia charged its European customers \$437.5 per thousand cubic meters (tcm), whereas China paid only \$350 per tcm for Central Asian gas. But now Gazprom's European price has fallen to \$380.5 per tcm. With Australian LNG about to flow and American LNG expected to follow, Russia could no longer afford to wait for China to give in. Putin had to strike a deal. In the end, the two sides most likely agreed to a price that was closer to China's bid than Russia's ask.¹³

CONCLUSION

China and Russia have shared a long history. For much of it, their relations were chilly. Russian leaders have worried about Chinese encroachment into the Russian Far East since the late 1600s, when Chinese forces drove Russian settlers out of the Amur River valley. Although China and Russia settled their once-disputed border ten years ago, many Russians (particularly those who live in the Russian Far East) remain wary of Chinese intentions, especially as they see China economically and technologically surpass them. Indeed, in 2003 Moscow shied away from a Chinese proposal to build a pipeline from Siberia's oil and natural gas fields directly into China. Russian leaders likely believed that it was far better for Russia to build a spur pipeline into China from its trunk line. That way, if relations between the two countries turn chilly again, Russia could still use its trunk line to export its energy resources to other Asian customers.

But Russia's push into Asia is not without risk. So far, Russian Far East energy projects have not been very profitable. The fact that half of Russia's oil exports to China were paid for with Chinese loans, rather than cash, did not help their cost economics. Unless such projects can fetch higher prices for their oil and natural gas production in the future, they are hardly beneficial to Russia's economy. For the moment, since all of the deals between the two countries have involved long-term fixed-price contracts, even if prices rose, Russia could not benefit much from them. Increasingly, Russia's power and influence in world affairs center on its control of energy resources. Some observers have said that Putin understands the energy industry better than any other national leader. If true, that is because he has to. He realizes that Russia must develop its Far Eastern resources if Russia's energy strategy is to work (and Moscow's coffers are to remain filled). But to do so, Putin is also aware that he needs China, not only as a customer, but also as an investor.¹⁴

Meanwhile, China's diversification of its energy suppliers to include Russia also carries risk. Russia's willingness to use its control over energy resources as a political lever must concern Chinese leaders. Russia already did so with Ukraine in 2008. There is no reason to believe that Russia would not do the same to China in the future. After all, the two countries spectacularly fell out before when Beijing and Moscow quarreled over communist leadership in the late 1950s. But China needs access to new energy resources if its economic growth is to be sustained. Those in the Russian Far East offer China not only a source that is reasonably politically stable, but also nearby and accessible by land. In any case, given China's apparent ascendancy and Russia's relative stagnation, Beijing may see little harm in further tie-ups with Russia today. And since pipelines can point both ways, China could also use them as leverage over Russia, especially if Western hostility towards Moscow ratchets higher.¹⁵

For the moment, none of that need worry China or Russia, so long as both are estranged from the West. Over the long run, however, Russia's relationship with China may not prove stable. As long as China continues to rise and Russia does not, the underlying economic and military balance in the region will shift. The further that power imbalance tilts toward China, the more the historic mistrust between the two countries could turn small irritations into big problems, especially if one or the other improves its relations with the West. However, like the time it took for China and Russia to ink its newest natural gas deal, there may be a long wait.

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¹³ Elena Mazneva, Aibing Guo, and Benjamin Haas, "Russia Close to \$400 Billion Gas Pipeline Deal in Pivot to China," Bloomberg, May 19, 2014; Abheek Bhattacharya, "Ukraine Gives China an Edge on Russian Gas," *Wall Street Journal*, May 15, 2014, p. C10.

¹⁴ Mike Eckel, "China, Russia Seek More Oil Cooperation," Associated Press, Mar. 22, 2006.

¹⁵ Andrew B. Kennedy, "China's New Energy-Security Debate," *Survival* 52:3 (Jun.-Jul. 2010), pp. 137-158.