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Hearing on An Emerging China-Russia Axis: Implications for the United States in an Era of Strategic
Competition

Panel 1: Ties that Bind: Current Areas of Sino-Russian Cooperation

China-Russia Energy Relations¹

Summary

- The China-Russia energy relationship is arguably more robust than it has ever been. Russia is China's largest supplier of crude oil imports on an annual basis, a position it has held since 2016. In addition, Russia is set to become a major source of natural gas for China as new export projects come online and ramp up to full capacity.
- These deepening energy ties are the product of three factors: complementary Chinese and Russian energy strategies, China's strategic provision of capital to Russian energy companies facing financial difficulties to secure oil supply contracts and support the development of Russian energy export infrastructure, and the emergence of new Chinese oil traders with appetites for Russian crudes.
- The substantial increase in Russia's crude oil exports to China over the past decade and the expected growth in Russia's natural gas exports to China over the next decade has not prevented the United States from selling crude oil and LNG to China. However, a protracted US-China trade dispute might spur China to import more Russian natural gas, which would reduce China's demand for LNG imports.
- Energy is emerging as an area where China-Russia cooperation is complicating the exercise of US power in the world. Not only is Chinese support for the development of Russian energy export infrastructure blunting the effects of US sanctions on Russia, but Beijing and Moscow also regard energy cooperation a way to counter other US actions inimical to their interests.

The State of the Bilateral Energy Relationship

China-Russia energy relations have improved dramatically. In the mid-2000s, the bilateral energy relationship was one of enormous unfulfilled potential as a result of the lack of infrastructure necessary

¹ This statement is based on Erica Downs, "China-Russia Energy Relations: Better Than Ever," in Erica Downs, James Henderson, Mikal E. Herberg, Shoichi Itoh, Meghan L. O'Sullivan, Morena Skalamera and Can Soylu, *The Emerging Russia-Asia Energy Nexus*, National Bureau of Asian Research, NBR Special Report #74, December 2018, 17-31. It reflects my personal views.

for the export of large volumes of Russian oil and natural gas to China.² Today, Russia is China's largest source of crude oil imports, due in large part to the construction of Russia's East Siberia Pacific Ocean (ESPO) pipeline and its spur to China. Russia is also poised to become a major supplier of natural gas to China within the next decade as new export projects come online and ramp up to full capacity.

Oil

China's imports of Russian crude have sextupled over the past decade, increasing from 234,000 barrels per day (bpd) in 2008 to 1.4 million bpd in 2018, accounting for 15 percent of China's crude oil imports.³ Russian crude oil deliveries to China topped 1 million bpd for the first time in 2016, the year Russia surpassed Saudi Arabia to become China's largest supplier of crude oil on an annual basis.⁴ Russia retained its status as China's largest crude oil supplier in 2017 and 2018 (See Figure 1).⁵

Russia's emergence as China's biggest supplier of crude oil is underpinned by the development of the ESPO pipeline and its spur to China, which allow Russia to export large volumes of crude to China by land and by sea. The ESPO pipeline stretches from Taishet in East Siberia to the port of Kozmino on Russia's Pacific coast. It has a capacity of 1.2 million barrels per day of which around 630,000 bpd go to Kozmino.⁶ The so-called ESPO spur consists of two parallel pipelines running from Skovorodino to Mohe on the Chinese border for onward delivery to Daqing. The two lines of the ESPO spur have the capacity to transport 600,000 bpd.⁷ In 2018, Russia shipped 75 percent of the crude it delivered to China via the ESPO spur (580,000 bpd) and the port of Kozmino (495,000 bpd).⁸ (Russia also probably exported around 200,000 bpd to China via the Kazakhstan-China oil pipeline, and the remaining 125,000 bpd probably traveled by rail or ship.⁹)

² Erica S. Downs, "Sino-Russian Energy Relations: An Uncertain Courtship," in James Bellacqua, ed., *The Future of China-Russia Relations* (The University Press of Kentucky, 2010), 146-175.

³ Tian Chunrong, "Analysis of China's Oil Imports in 2008" (2008 nian Zhongguo shiyou jinchukou zhuangkuang fenxi), *International Petroleum Economics (Guoji shiyou jingji)*, No. 3 (2009), 34; and Customs Statistics, <http://43.248.49.97/indexEn>.

⁴ Chen Aizhu and Meng Meng, "Russia Beats Saudi Arabia as China's Top Crude Oil Supplier in 2016," Reuters, January 23, 2017, <https://www.reuters.com/article/us-china-economy-trade-crude/russia-beats-saudi-arabia-as-chinas-top-crude-oil-supplier-in-2016-idUSKB1570VJ>.

⁵ Chen Aizhu, "Russia remains China's largest oil supplier for 10th month," Reuters, January 25, 2018, <https://www.reuters.com/article/us-china-economy-trade-oil/russia-remains-chinas-largest-oil-supplier-for-10th-month-idUSKBN1FE0M2>; and Meng Meng and Chen Aizhu, "Russia seals position as top crude oil supplier to China, holds off Saudi Arabia," Reuters, January 24, 2019, <https://www.reuters.com/article/us-china-economy-trade-crude/russia-seals-position-as-top-crude-oil-supplier-to-china-holds-off-saudi-arabia-idUSKCN1PJ05W>.

⁶ For more information on the ESPO pipeline, see James Henderson and Tatiana Mitrova, *Energy Relations Between Russia and China: Playing Chess with the Dragon*, Oxford Institute for Energy Studies (OIES) Paper (Oxford: OIES), 28-31, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/08/Energy-Relations-between-Russia-and-China-Playing-Chess-with-the-Dragon-WPM-67.pdf>.

⁷ "New Line of China-Russian Oil Pipeline Begins Operation," Xinhua, January 1, 2018, http://www.xinhuanet.com/english/2018-01/01/c_136864998.htm.

⁸ "Viewpoint: China to maintain grip on ESPO Blend crude," Argus Media, December 28, 2018, <https://www.argusmedia.com/en/news/1818919-viewpoint-china-to-maintain-grip-on-espo-blend-crude>

⁹ For information on deliveries via Kazakhstan, see Vladimir Soldatkin and Gleb Gorodyankin, "Exclusive: Russia's Rosneft aims for big boost in oil exports to China- sources," Reuters, October 6, 2017, <https://www.reuters.com/article/us-russia-china-oil-exclusive/exclusive-russias-rosneft-aims-for-big-boost-in-oil-exports-to-china-sources-idUSKBN1CB1KE>.

Russia has done more than any other country to help China diversify its oil imports away from the sea lines of communication and major maritime chokepoints such as the Strait of Hormuz and the Strait of Malacca. The 1.4 million bpd that Russia exported to China in 2018 traveled either overland (either directly from Russia or via the Kazakhstan-China oil pipeline) or a relatively short distance by sea from the port of Kozmino. In contrast, Kazakhstan, China's other overland supplier, only delivered 46,000 bpd last year.¹⁰ Together, Russia and Kazakhstan accounted for 16 percent of China's crude oil imports in 2018; the remaining 84 percent were seaborne deliveries.

Natural Gas

Russia is set to also become a large supplier of natural gas to China. The Power of Siberia pipeline will deliver natural gas from East Siberia to the Chinese border for 30 years.¹¹ Deliveries are scheduled to start in December 2019 and will gradually ramp up to 38 billion cubic meters (bcm) (28 million tons) per year.¹² Meanwhile, Yamal LNG began operations in December 2017 and shipped its first cargo to China in July 2018.¹³ The project reached full capacity in December 2018 and will ship 3 million tons per year to China for 20 years.¹⁴

The 31 million tons of Russian gas already contracted by China is more than the amount China imported from Turkmenistan (25 million tons), its largest supplier of natural gas in 2018 (See Figure 2).¹⁵ If China had imported 31 million tons of natural gas from Russia last year, Russian supplies would have accounted for one-third of China's total natural gas imports.¹⁶ If China were to import 31 million tons of Russian gas in 2023, when Gazprom expects Power of Siberia to be operating at full capacity, Russian gas would constitute about one-quarter of the total amount of natural gas the International Energy Agency projects China will import in that year.¹⁷

¹⁰ Customs Statistics, <http://43.248.49.97/indexEn>.

¹¹ Gazprom, "Power of Siberia: The largest gas transmission system in Russia's Far East," www.gazprom.com/projects/power-of-sibera/.

¹² Stuart Elliott, "Outlook 2019: Gazprom faces leaner 2019, focus firmly on key natural gas pipeline projects," Platts, December 28, 2018, <https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/122818-outlook-2019-gazprom-faces-leaner-2019-focus-firmly-on-key-natural-gas-pipeline-projects>.

¹³ "Russia's Novatek ships first LNG cargo to China via Arctic," Reuters, July 18, 2018, <https://www.reuters.com/article/us-novatek-cnpc-lng/russias-novatek-ships-first-lng-cargo-to-china-via-arctic-idUSKBN1K90YN>.

¹⁴ "Yamal LNG project reaches full production capacity," Xinhua, December 12, 2018, http://www.xinhuanet.com/english/2018-12/12/c_137666821.htm; Yamal LNG, "Binding Contract on LNG Supply Concluded with CNPC," Press Release, May 20, 2014, www.novatek.ru/business/yamal-Ing/yamal_press_release/index.php?&from_4=3.

¹⁵ Customs Statistics, <http://43.248.49.97/indexEn>.

¹⁶ Customs Statistics, <http://43.248.49.97/indexEn>.

¹⁷ Stuart Elliott, "Outlook 2019: Gazprom faces leaner 2019, focus firmly on key natural gas pipeline projects," Platts, December 28, 2018, <https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/122818-outlook-2019-gazprom-faces-leaner-2019-focus-firmly-on-key-natural-gas-pipeline-projects>; International Energy Agency, *Gas 2018* (Paris: OECD, 2018), 16, 68.

Drivers of the Energy Relationship

The deepening energy relationship between China and Russia is rooted in the countries' complementary energy strategies, China's strategic provision of financing to Russian energy companies, and the emergence of new Chinese oil importers with appetites for Russian crudes.

Complementary Energy Strategies

China and Russia have complementary energy strategies. China, which is the world's largest importer of oil and natural gas, has long sought to maintain a diversity of suppliers and import routes. Indeed, diversifying China's oil imports away from the Persian Gulf and major maritime chokepoints, including the Strait of Hormuz and the Strait of Malacca underpinned the efforts of the Chinese government and China's national oil companies to secure the flow of large volumes of Russian crude to China. Russia, which is one of the world's largest owners and producers of oil and natural gas, has long sought to diversify its oil and natural gas exports away from Europe and towards China and other fast-growing economies in Asia. In addition, the fact that China and Russia are neighbors allows for the direct delivery of Russian energy to China free from third-party countries, which require transit fees and have the power to withhold supplies.

China's Strategic Provision of Financing

Over the past fifteen years, China has taken advantage of the needs of Russian energy companies for cash – both to pay debts and to replace capital lost from the West due to U.S. and European Union sanctions – to advance its energy interests vis-à-vis Russia. Specifically, Chinese entities have extended loans to Russian energy companies to secure long-term, large-volume oil supply contracts, the construction of infrastructure to deliver this oil to China, and the development of Yamal LNG. These financing arrangements facilitated Russia's emergence as China's top crude oil supplier and the start of the delivery of Russian LNG to China under long-term contract.

In 2005, Chinese banks began providing loans and prepayments for oil to Russian energy firms to obtain long-term supply contracts. In that year, China Development Bank (CDB) and the Export-Import Bank of China loaned \$6 billion to Rosneft, the Russian national oil company.¹⁸ Rosneft used the money to refinance the \$6.1 billion it borrowed from Russian banks to purchase the main oil producing asset of Yukos, a private Russian oil company that had fallen into bankruptcy. Rosneft secured the loan with a contract to deliver about 180,000 bpd to China in 2005-2010.

In 2009, Chinese cash helped Rosneft and Transneft, Russia's pipeline monopoly, weather the collapse in oil prices in the second half of 2008 and tightening global credit markets. Rosneft had a debt payment of \$8.46 billion due in 2009, while Transneft expected its capital expenditure to increase with the construction of major export pipelines to Europe and Asia.¹⁹ CDB agreed to extend loans of \$15 billion to

¹⁸ This paragraph is based on Rosneft, "Management's Discussion and Analysis of Financial Position and Results of Operations for the years ended December 31, 2006, 2005 and 2004," 7, https://www.rosneft.com/upload/site2/document_cons_report/9AltaFqmS6.pdf, and James Henderson, "Rosneft – On the Road to Global NOC Status?" Oxford Institute for Energy Studies, WPM 44, January 2012, 7-8, https://www.oxfordenergy.org/wpcms/wp-content/uploads/2012/01/WPM_44.pdf.

¹⁹ Rosneft, "Q4 and 12M 2009 USGAAP Results," February 1, 2010, 23, https://www.rosneft.com/upload/site2/document_file/d1pW569Hvr.pdf; "Rosneft Due to Pay Off \$8.5 Bln Debt in

Rosneft and \$10 billion to Transneft with twenty-year terms in return for the delivery of 300,000 bpd for 20 years and the construction of the ESPO spur.²⁰

In 2013, China came to Rosneft's rescue again. The company had borrowed \$31 billion from international banks to finance its \$55 billion acquisition of TNK-BP in 2013 and had to pay back \$15.9 billion in 2014 and \$16.2 billion in 2015.²¹ China National Petroleum Corporation (CNPC) ensured that Rosneft had adequate funds to make these payments. The Chinese company agreed to provide \$70 billion in prepayment for future oil supplies. In return, Rosneft agreed to deliver an additional 2.64 billion barrels over the next 25 years and expand the capacity of the ESPO spur to 400,000 bpd in 2015 and to 600,000 bpd in 2018.²²

In 2016, Chinese financial institutions provided Yamal LNG with the external financing it needed to move forward despite US sanctions. Washington's imposition of sanctions on Novatek, the majority owner of Yamal LNG, in July 2014 restricted the project's borrowing options.²³ After Novatek failed to attract financing from Western banks, Chinese financial institutions agreed to lend a helping hand.²⁴ The Silk Road Fund moved first, acquiring a 9.9 percent stake in the project for EUR 1.087 million (\$1.2 billion) and extending a loan of EUR 730 million (\$798 million) in March 2016.²⁵ The president of the Silk Road Fund said he hoped that the fund's "entrance into the project will facilitate an expedited close of the

2009," Interfax, February 27, 2009, Factiva; and "Reuters Summit – Transneft to Seek More Funds as Costs Rise," Reuters, September 10, 2008, Factiva.

²⁰ Erica S. Downs, *Inside China, Inc.: China Development Bank's Cross-Border Energy Deals*, Brookings Institution, John L. Thornton China Center, Monograph, No. 3, March 2011, 40-41, https://www.brookings.edu/wp-content/uploads/2016/06/0321_china_energy_downs.pdf.

²¹ Vladimir Soldatkin, "Update 1 – Rosneft says China starts prepayments for oil deals," Reuters, January 15, 2014, <https://www.reuters.com/article/rosneft-china-idUSL5N0KP2AY20140115>.

²² Nadezhda Sladkova, "Rosneft reveals prepayment deals but questions remain," *NEFTE Compass*, August 1, 2013, Factiva; and Jacob Gronholt-Pedersen, "Refile-Factbox-Russia-China crude oil deals," Reuters, February 19, 2014, <https://uk.reuters.com/article/china-russia-crude/refile-factbox-russia-china-crude-oil-deals-idUKL3NOLI3K720140219>.

²³ U.S. Department of the Treasury, "Announcement of Treasury Sanctions on Entities Within the Financial Services and Energy Sectors of Russia, Against Arms or Related Material Entities, and those Undermining Ukraine's Sovereignty," July 16, 2014, <https://www.treasury.gov/press-center/press-releases/pages/jl2572.aspx>.

²⁴ James Marson, "Russia Skirts U.S. Sanctions With \$27 Billion Arctic Gas Plant," *Wall Street Journal*, December 8, 2017, <https://www.wsj.com/articles/russia-skirts-u-s-sanctions-with-27-billion-arctic-gas-plant-1512731306>.

²⁵ Novatek, "Novatek and China's Silk Road Fund Sign Binding Definitive Agreements," Press Release, December 17, 2015, http://www.novatek.ru/en/press/releases/archive/index.php?id_4=1056&afrom_4=01.01.2015&ato_4=31.12.2015; Novatek, "Novatek and China's Silk Road Fund Conclude Selling 9.9% Stake in Yamal LNG," Press Release, March 15, 2016, http://www.novatek.ru/en/investors/events/archive/index.php?id_4=1165&afrom_4=01.01.2016&ato_4=31.12.2016&from_4=5.

project's general external financing."²⁶ CDB and the Export-Import Bank of China agreed to provide two loans in Euros and Renminbi totaling \$12.1 billion in April 2016.²⁷

Chinese financiers probably supported Yamal LNG for several reasons. First, CNPC had acquired a twenty percent stake in the project from Novatek in January 2014 (The project's fourth owner is Total, which also holds 20 percent).²⁸ Second, the project provided Chinese companies with an opportunity to expand their manufacturing capabilities to another part of the LNG supply chain by building core modules for the project, the first to be independently designed and manufactured by a Chinese firm.²⁹ Third, the project generated business for 45 Chinese companies, which secured manufacturing contracts worth \$8.5 billion and shipping contracts worth \$7.8 billion.³⁰ Fourth, Yamal LNG furthers Beijing's objective of developing Arctic shipping routes.³¹ (Note: Rosneft CEO Igor Sechin also supports more bilateral cooperation in this area. In a November 2018 speech, he said joint development of oil and natural gas resources in the Arctic and the development of navigation on the Northeast Passage as potential may become "new growing points" of China-Russia cooperation.³²)

New Chinese Crude Importers

Another factor that has contributed to the growth of Russian crude oil exports to China is the emergence of China's independent refineries as oil traders. In 2015, Beijing granted China's independent refineries – often called "teapots" – direct access to imported crude oil, a privilege that had previously been enjoyed by only a handful of state-owned companies.³³ The central government awarded the independent refineries, most of which are located in Shandong province in northeast China, import

²⁶ Novatek, "Novatek and the Silk Road Fund Conclude Framework Agreement on Acquisition of Stake in Yamal LNG," Press Release, September 3, 2015, http://www.novatek.ru/en/press/releases/archive/index.php?id_4=984&afrom_4=01.01.2015&ato_4=31.12.2015&from_4=2.

²⁷ Novatek, "Yamal LNG Signed Loan Agreements with the Export-Import Bank of China and the China Development Bank," Press Release, April 29, 2016, [www.novatek.ru/common/upload/doc/2016_04_29_press_release_Chinese_banks_FA_\(ENG\).pdf+&cd=1&hl=en&ct=clnk&gl=us](http://www.novatek.ru/common/upload/doc/2016_04_29_press_release_Chinese_banks_FA_(ENG).pdf+&cd=1&hl=en&ct=clnk&gl=us).

²⁸ Novatek, "Novatek closes sale of 20% interest in Yamal LNG to CNPC," Press Release, January 14, 2014, http://www.novatek.ru/en/investors/events/archive/index.php?id_4=826&afrom_4=01.01.2014&ato_4=31.12.2014&from_4=4.

²⁹ China National Offshore Oil Corporation, "COOEC Delivers 36 Core Modules of Yamal LNG Project on Time," Press Release, August 18, 2017, http://www.cnooc.com.cn/art/2017/8/18/art_6261_2708441.html; Zheng Xin and Zhang Min, "Top-End Oil-Gas Equipment Next," *China Daily*, April 17, 2017, http://www.chinadaily.com.cn/business/2017-4/17/content_28952838.htm.

³⁰ "Made in China Becomes a New Feature of the Arctic and Opens the Arctic Channel to Boost the Polar Silk Road" (Zhongguo zhizao dazao Beiji quan xin mingpian kaipi Beiji hangdao zhuti "bing shang sichou zhi lu"), China Central Television, December 9, 2017, <http://news.cctv.com/2017/12/09/ARTIUyOFJXLK3yNlj09bOaZ1171209.shtml>.

³¹ Information Office of the State Council of the People's Republic of China, China's Arctic Policy (Beijing, January 2018), http://english.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm.

³² Rosneft, "First Russian-Chinese Energy Business Forum Held in Beijing," November 29, 2018, <https://www.rosneft.com/press/today/193103/>.

³³ National Development and Reform Commission, "Notice of the National Development and Reform Commission on issues related to the use of imported crude" (Guojia fazhan gaige wei guanyu jinkou yuanyou shiyong guanli youguan wenti de tongzhi), Document No. 253 (2015), http://www.sdpc.gov.cn/gzdt/201502/t20150216_664965.html.

quotas totaling 1.5 million bpd in 2016 and 1.9 million bpd in 2017.³⁴ Russia quickly became a preferred supplier of the independent refineries because the short distance from Kozmino (compared to Persian Gulf ports) to Shandong makes the smaller cargoes they prefer more economical.³⁵ Purchases of Russian crudes by the independent refineries accounted for more than 90 percent of the growth in Russian exports to China in 2016 and all of the growth in 2017.³⁶

Another new buyer of Russian crude emerged in September 2017, when CEFC signed a supply contract with Rosneft for 244,000 bpd over five years.³⁷ Rosneft began delivering the crude in January 2018.³⁸ Rosneft has said it will honor the supply contract despite the collapse of CEFC's plans to purchase a 14.16% stake in Rosneft.³⁹

Implications for the United States

The good news is that there is still space for US crude oil and LNG in China's import portfolio despite the dramatic growth in Russia's crude oil exports to China over the past decade and the large volume of Russian natural gas China has agreed to purchase over the next three decades, although a protracted US-China trade dispute may increase Chinese interest in importing more Russian gas. The bad news is that China-Russia energy cooperation is complicating the United States' exercise of power in the world.

There is still space for US crude oil and LNG in China's import portfolio.

The growth in Russian crude oil exports to China has not prevented the United States from also selling crude oil to China. In 2017, China emerged as the second largest buyer of U.S. crude after Canada,

³⁴ Julien Mathonniere, "Insight: China Takes a Driving Seat in Global Oil Markets," ICIS, December 13, 2017, <https://www.icis.com/resources/news/2017/12/13/10173856/insight-china-takes-a-driving-seat-in-global-oil-markets/?redirect=english>; Chen Aizhu and Meng Meng, "Update 1 – China March Refinery Runs Hit Record; Crude Output Near Multi-Year Low," Reuters, April 16, 2018, <https://uk.reuters.com/article/china-economy-output-oil/update-1-china-march-refinery-runs-hit-record-crude-output-near-multi-year-low-idUKL3N1RT29B>.

³⁵ Gawoon Philip Vahn, Deborah Lee and Dexter Wang, "Far East Russian crudes rally as China shifts focus to low sulfur crudes," Platts, October 25, 2016, <http://www.platts.com/latest-news/oil/singapore/far-east-russian-crudes-rally-as-china-shifts-27695519>; Meng Meng and Chen Aizhu, "Russia beats Saudi for third straight month as China's top crude supplier," Reuters, June 21, 2016, <http://www.reuters.com/article/us-china-crude-imports-idUSKCN0Z72DX>.

³⁶ "Table of China December Data on Oil, Oil Product, LNG Imports," *Dow Jones Institutional News*, January 23, 2017, Factiva; and ICIS, *Monthly Report on Independent Refineries (Zhongguo defang lianchang yue bao)*, December 2016, p. 3; "Table of China December Data on Oil, Oil Product, LNG Imports," *Dow Jones Institutional News*, January 25, 2018, Factiva; and multiple reports from Platts used to calculate the independent refineries' crude oil imports in 2017.

³⁷ Elena Mazneva, Stephen Bierman and Javier Blas, "China Deepens Oil Ties with Russia in \$9 Billion Rosneft Deal," Bloomberg, September 8, 2017, <https://www.bloomberg.com/news/articles/2017-09-08/china-s-cefc-buys-stake-in-rosneft-from-glencore-and-qatar>; "Russia's Rosneft Confirms Oil Supply Deal with China's CEFC," Reuters, November 20, 2017, <http://www.reuters.com/article/us-russia-china-oil/russias-rosneft-confirms-oil-supply-deal-with-chinas-cefc-idUSKBN1DK0JZ>.

³⁸ "Russia's Rosneft Confirms Oil Supply Deal with China's CEFC," Reuters, November 20, 2017, <http://www.reuters.com/article/us-russia-china-oil/russias-rosneft-confirms-oil-supply-deal-with-chinas-cefc-idUSKBN1DK0JZ>.

³⁹ "Rosneft Tackles CEFC Supplies Dilemma," *NEFTE Compass*, May 31, 2018, Factiva.

purchasing 224,000 bpd.⁴⁰ China's imports of US crude increased to 378,000 bpd in January-July 2018 before dropping to 21,000 bpd in August-December 2018 due to the US-China trade dispute.⁴¹

Similarly, the development of the Power of Siberia Pipeline and Yamal LNG has not stopped China from purchasing US LNG. China, which began importing US LNG in 2016, was the third largest buyer in 2017 after Mexico and Canada, purchasing 1.5 million tons on the spot market.⁴² However, China's imports of US LNG did fall by 9 percent in 2018 as a result of the trade dispute, which saw Beijing impose a 10 percent tariff on US LNG and other goods in response to tariffs imposed by the United States on Chinese goods.⁴³

There currently is room for more US crude oil and LNG in China's import portfolio. The International Energy Agency, for example, expects that China's oil imports will increase by 2.2 million bpd between 2017 and 2023.⁴⁴ Meanwhile, industry analysts at Bernstein projected in October 2017 that China would need to contract another 70 million tons of LNG per year through 2025 to meet its growing demand.⁴⁵ To this end, one U.S. exporter, Cheniere, signed an agreement with CNPC in February 2018 to ship 1.2 million tons of LNG a year to CNPC through 2043.⁴⁶ China prefers a balance between pipeline and seaborne imports.⁴⁷

Increased Chinese purchases of US crude oil and LNG are likely to be part of any resolution to the US-China trade dispute. Indeed, Cheniere is expected to sign an LNG supply contract with Sinopec as part of a US-China trade deal.⁴⁸ That said, how much "room" there is for US LNG in China will also be affected by growth in China's domestic natural gas production and competition from other exporters, including Australia, Qatar and Russia.

⁴⁰ U.S. Energy Information Administration, "Petroleum & Other Liquids: Exports by Destination," March 8, 2019, https://www.eia.gov/dnav/pet/pet_move_expc_a_EP00_EEX_mbbldpd_a.htm.

⁴¹ U.S. Energy Information Administration, "Petroleum & Other Liquids: Exports by Destination," March 8, 2019, https://www.eia.gov/dnav/pet/pet_move_expc_a_EP00_EEX_mbbldpd_a.htm; Florence Tan and Chen Aizhu, "Crude Refusal: China shuns U.S. oil despite trade war truce," Reuters, December 21, 2018, <https://www.reuters.com/article/us-usa-trade-china-oil/crude-refusal-china-shuns-u-s-oil-despite-trade-war-truce-idUSKCN1OK0FG>.

⁴² "Table of China December Data on Oil, Oil product, LNG Imports," Dow Jones Institutional News, January 25, 2018, Factiva.

⁴³ Customs Statistics, <http://43.248.49.97/indexEn>; Scott DiSavino and Sabina Zawadzki, "China LNG tariff casts shadow over new U.S. export terminals," Reuters, September 18, 2018, <https://www.reuters.com/article/us-usa-trade-china-lng/china-lng-tariff-casts-shadow-over-new-u-s-export-terminals-idUSKCN1LY27T>.

⁴⁴ International Energy Agency, *Oil 2018* (Paris: OECD), 34, 52.

⁴⁵ Neil Beveridge et al., "China Steps on the Gas. Will This Trigger the Next LNG Super-Cycle?" Bernstein Research, October 18, 2017, 1.

⁴⁶ Ed Crooks and Emiko Terazono, "Cheniere Signs Long-Term LNG Export Deal with China," *Financial Times*, February 8, 2018, <https://www.ft.com/content/cf27354a-0dbf-11e8-8eb7-42f857ea9f09>.

⁴⁷ National Development and Reform Commission, National Energy Administration, "Medium and Long-Term Oil and Natural Gas Pipeline Network Plan" (Zhongchangqi youqi guandao wang guihua), May 2017, <http://www.ndrc.gov.cn/zcfb/zcfbghwb/201707/W020170712525204531251.pdf>.

⁴⁸ Christopher M. Matthews, "Cheniere Deal with China Signals Country's Key Role in LNG Exports," *Wall Street Journal*, March 4, 2019, <https://www.wsj.com/articles/cheniere-deal-with-china-signals-countrys-key-role-in-lng-exports-11551735153>.

However, a protracted US-China trade dispute may spur more Russian natural gas exports to China, which could limit China's imports of LNG, including from the United States.

The US-China trade dispute may increase China's interest in the development of additional infrastructure to deliver natural gas from Russia to China. Uncertainty about how the trade dispute will play out might incentivize China's government and national oil companies to seek additional natural gas supplies from Russia. This is especially likely to be true the longer the dispute drags on.

One proposed project to keep an eye on is the Altai pipeline, also known as Power of Siberia 2, which would deliver 30 bcm of Russian gas from West Siberia to Xinjiang in western China. The Chinese have been less enthusiastic about this pipeline than the Russians, in part because it would compete with the pipeline that runs from Turkmenistan to China via Uzbekistan and Kazakhstan. Indeed, in 2010, Zhang Guobao, then vice chairman of China's National Development and Reform Commission and a key player in China-Russia energy negotiations, told the Russian media that since China already receives gas from Central Asia, "an increase in gas deliveries to Xinjiang is not so important."⁴⁹

However, Beijing's interest in the Altai pipeline appears to have increased. According to Russia's energy minister, Chinese president Xi Jinping "set the task of getting approval for gas supplies via the western route [Altai] during the shortest possible time" during a meeting with Russian president Vladimir Putin in September 2018.⁵⁰ To be sure, Xi's words may have been a warning to Turkmenistan, which did not meet its contractual obligations to China in late 2017 and early 2018 and is considering diversifying its natural gas exports away from China.⁵¹ Nonetheless, China's rapid natural gas demand growth combined with uncertainty about the reliability of Turkmenistan as a supplier and the outcome of the US-China trade dispute might increase Chinese interest in the Altai pipeline. If China and Russia were to develop this project, it would reduce China's call on LNG imports.

Energy Cooperation is Complicating the Exercise of US Power in the World

Energy is emerging as an area where China-Russia energy cooperation is complicating the exercise of US power in the world. (For more on this issue, please see Robert Sutter's testimony.) This observation is based on three data points: the agreement to build the Power of Siberia natural gas pipeline, Chinese financing for Yamal LNG, and remarks made by senior Chinese and Russian officials at an energy forum in 2018. The first two data points illustrate how Chinese political and financial support for the development of Russian energy export infrastructure is blunting the effects of US sanctions on Russia. The third data point indicates that Beijing and Moscow regard energy cooperation as a way to counter other US actions inimical to Chinese and Russian interests, notably the US-China trade dispute.

Power of Siberia: The time (May 2014) and place (Shanghai, China) of the agreement reached by China and Russia to build the long-discussed natural gas pipeline are politically significant because they

⁴⁹ "Interfax China Energy Weekly," Interfax, October 13, 2010, Factiva.

⁵⁰ "Moscow, Beijing to Agree Gas Supplies Via Power of Siberia's 'Western Route' Shortly," TASS, September 12, 2018, <http://tass.com/economy/1021135>.

⁵¹ "China searches for solution after being hit by natural gas shortage," *Global Times*, January 3, 2018, <http://www.globaltimes.cn/content/1083117.shtml>; Olzhas Auyezov and Ece Toksabay, "Foreign companies struggle in cash-strapped Turkmenistan," Reuters, June 4, 2018, <https://www.reuters.com/article/turkmenistan-economy-idUSL5N1T50K3>.

demonstrated that looming US and EU sanctions would neither derail Russia's plans to sell large volumes of natural gas to China nor completely isolate Russia internationally. The deal was clinched at a time when Russia's relationships with the United States and Europe had deteriorated due to Russia's annexation of Crimea earlier in the year. Indeed, the threat of sanctions provided a political imperative for Moscow to conclude an agreement for Power of Siberia.⁵² The fact that the Chinese were willing to finalize the agreement during a visit to Shanghai by Russian president Vladimir Putin sent a message to Russia (and the rest of the world) that China regarded Russia as an important partner.

Yamal LNG: Russia's second LNG export project (and its first above the Arctic Circle) almost certainly would not have been completed on time and on budget in the face of US (and European Union) sanctions without more than \$14 billion in Chinese financing. The decision to support Yamal LNG appears to have been made at the apex of China's political system given that Chinese financial institutions did not provide financing until after senior Chinese and Russian officials agreed to resolve the financing shortfall for Yamal LNG. Up until the meeting between Russian Deputy Prime Minister Arkady Dvorkovich and Chinese Vice Premier Zhang Gaoli in April 2015, the project had been unable to secure financing from Chinese banks, despite nearly two years of discussions with Chinese financiers including CDB.⁵³

China-Russia Energy Business Forum: Senior Chinese and Russian officials discussed the importance of bilateral energy cooperation in the face of the US-China trade dispute and, perhaps, US sanctions on Russia at the China-Russia Business Forum held in Beijing in November 2018. Chinese Vice-Premier Han Zheng said, "I would like to emphasize that the strengthening of the Russian-Chinese energy cooperation is very important for jointly ensuring energy security and forming the open global economy, amid the rise in unilateralism and trade protectionism."⁵⁴ His message was well received by Rosneft CEO Igor Sechin. According to Sechin, "certain aspects of the current political conditions in the world, increasing protectionism and threat of trade wars in world economy serve as additional incentives to cooperate more closely and make decisions faster."⁵⁵

This testimony marks a change in my view of China-Russia energy cooperation and the role it plays in the bilateral relationship. A decade ago, I argued that energy was a weak link in China-Russia relations and not a force of convergence.⁵⁶ Today, I see energy as a pillar of the bilateral relationship and one that is facilitating cooperation between China and Russia on other issues.

⁵² Thane Gustafson, Zhouwei Diao, and Jenny Yang, "Russia-China Gas Deal: The Winding Road to an Agreement," IHS Energy, Energy Insight, May 23, 2014, 8.

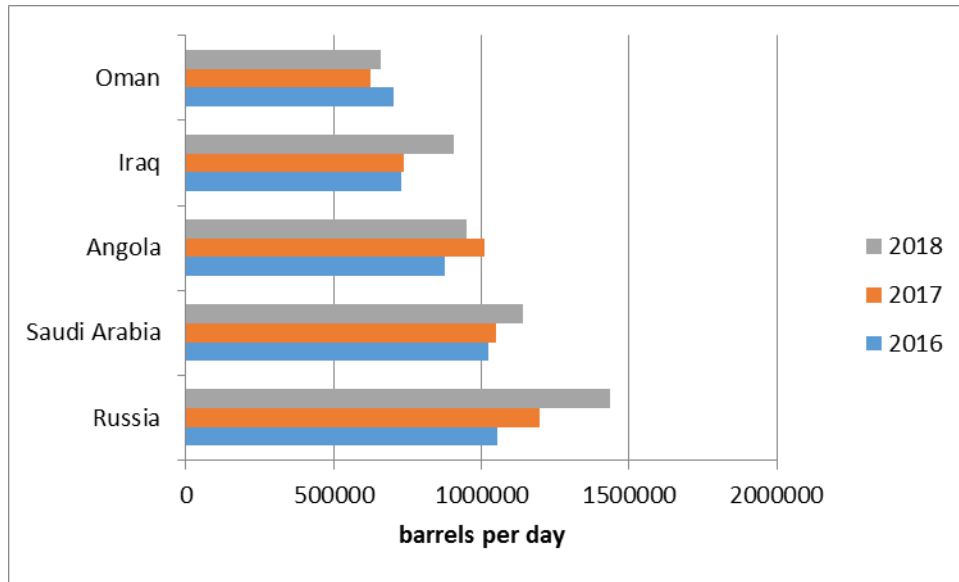
⁵³ Novatek, "Novatek, CNPC and Chinese banks conclude memorandum on project financing for Yamal LNG," Press Release, September 10, 2013, www.novatek.ru/en/investors/events/archive/index.php?id_4=786&from_4=01.09.2013&to_4=01.10.2013; Yamal LNG, "Memorandum on Project Financing Signed for Yamal LNG," Press Release, May 20, 2014, http://www.novatek.ru/en/business/yamal-lng/yamal_press_release/index.php?&from_4=3; and "Russia, China agree to resolve Yamal LNG financing issue in the next few months," Interfax, April 21, 2015, Factiva.

⁵⁴ Rosneft, "First Russian-Chinese Energy Business Forum Held in Beijing."

⁵⁵ Ibid.

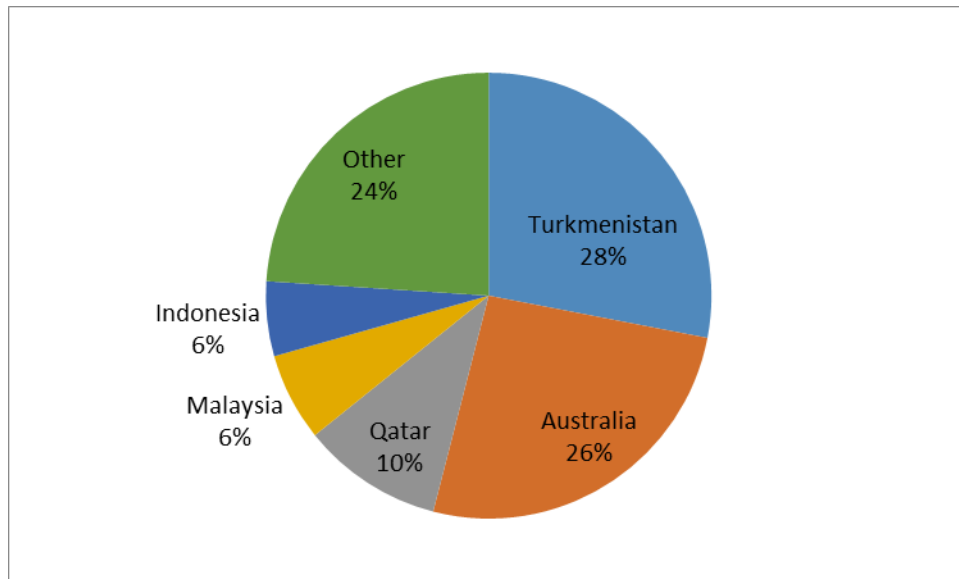
⁵⁶ Erica S. Downs, "Sino-Russian Energy Relations: An Uncertain Courtship," 164.

Figure 1: China's Top Five Crude Oil Suppliers, 2016-2018



Source: China's General Administration of Customs, reported by Dow Jones (2016, 2017) and Customs Statistics, <http://43.248.49.97/indexEn> (2018)

Figure 2: China's Natural Gas Imports by Supplier, 2018



Source: China's General Administration of Customs, reported by Customs Statistics, <http://43.248.49.97/indexEn>