

Recent Developments in Russia-Japan Energy Relations

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Abstract

The Russian government has recently elevated the “Asia dimension” in its national energy strategy, viewing Asia-Pacific as the most attractive market due to the high energy demand, stable energy prices, and various business opportunities for Russian energy suppliers. Furthermore, Russia’s authorities realize the importance of attracting international financial and technological assistance for the development of the rich energy base and infrastructure in the remote areas of Eastern Siberia and the Far East. To achieve these goals, boosting energy cooperation with its partners in the Asia-Pacific, particularly Japan (the region’s second largest economy and one of the world’s top energy consumers) is crucial. This paper addresses recent major developments in Russia-Japan energy relations, focusing on the two countries’ cooperation in the Russian Far East and Eastern Siberia. Given the geographical proximity, complementary economic needs, and desire to diversify their respective energy policies, Japan and Russia should naturally seek to expand their energy relations with each other. In addition to their cooperation in crude oil and natural gas, since both Japan’s and Russia’s national energy strategies emphasize the improvement of energy efficiency, promotion of renewable energy resources, conservation of energy resources, and advancement of clean technologies, it is important that they seek to expand their cooperation in these areas as well. In conclusion, the paper provides an assessment of the future prospects of the bilateral energy cooperation in the context of the two countries’ relations as a whole.

Keywords: Russia, Japan, energy cooperation, energy strategy.

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Introduction

The Russian government has recently elevated the “Asia dimension” in its foreign policy and energy strategies, viewing Asia-Pacific as the most attractive market due to the high energy demand, stable energy prices, and various business opportunities for Russian energy suppliers. Furthermore, Russia’s authorities realize the importance of attracting international financial and technological assistance for the development of the rich energy base and infrastructure in the remote areas of Eastern Siberia and the Far East. To achieve these goals, boosting energy cooperation with its partners in Asia-Pacific, particularly Japan (the region’s second largest economy and one of the world’s top energy consumers), is crucial.

Japan and Russia are natural trading partners in the field of energy due to the geographical proximity, complementary economic needs, and the drive to diversify their energy policies. For Japan, seeking to secure reliable sources for energy supplies in close proximity, Russia offers a convenient location, relatively short and secure delivery routes as well as a possibility of long-term supplies of natural and mineral resources. For Russia, it is essential to secure Japan’s long-term financial commitment and extensive technological investment, especially for the development of Russia’s Far East, Eastern Siberia, and other remote areas, in turn opening up new export markets in Asia.

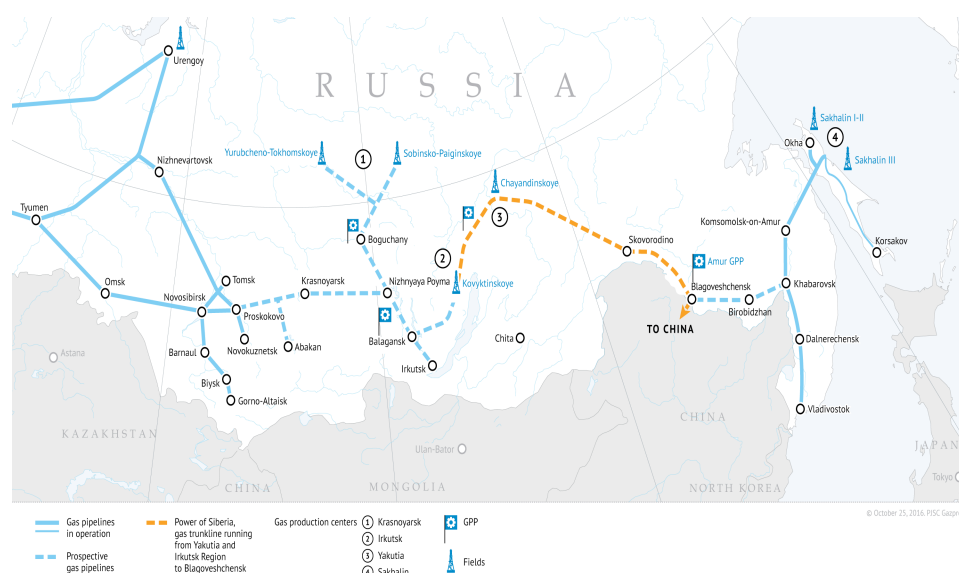
Additionally, the two countries’ energy cooperation benefited from the post-Fukushima adjustment of Japan’s energy policy, leading to a shift away from nuclear power and subsequent increase in demand for non-nuclear, “clean” energy resources, including natural gas and liquefied natural gas (hereafter “LNG”). Moreover, as both Japan and Russia’s national energy strategies pursue similar goals, such as the improvement of energy efficiency, promotion of renewable energy resources, conservation of energy resources, and advancement of clean technologies to facilitate emissions reductions, the two countries began expanding their bilateral energy cooperation in these areas, in addition to their traditional trade in oil and natural gas.

Overview of Russia-Japan energy cooperation initiatives (prior to the Ukrainian Crisis of 2014)

Japanese-Russian energy cooperation has been gradually improving since the materialization of the Sakhalin-1, Sakhalin-2, and related oil and gas projects in the Russian Far East (hereafter “RFE”) in the mid-1990s. In April 2009, Japan received its first LNG shipment from the Sakhalin-2 project, and in December 2009, three major Japanese companies contracted purchases of ESPO crude oil cargoes¹ from the export terminal at Kozmino Bay in the RFE. Since then, the Russian share of Japan’s total LNG imports has grown from 4.3% in 2009 to about 10% in 2014, thereby making Russia Japan’s 4th largest LNG supplier (after Australia, Qatar, and Malaysia). Also, Russia overtook Iran to become Japan’s 4th largest (and the top non-Middle-Eastern) supplier of crude oil, with oil shipments to Japan reaching approximately 10.13 million barrels, constituting 9% of Japan’s total crude imports in July 2010 (Maeda, 2010).

¹ ESPO crude oil cargoes are delivered via the Eastern Siberia-Pacific Ocean oil pipeline [hereafter the “ESPO oil pipeline”], which came into full operation in December 2009. The shipment of the first oil cargo from Kozmino Bay (in Primorskiy District of the RFE) took place in January 2010.

At the governmental level, a number of important energy cooperation agreements were concluded between the two countries during the same period. In 2008, the Japanese government represented by the Japanese Ministry of Economics, Trade and Industry (METI)'s Agency for Natural Resources and Energy (ANRE) signed a Memorandum of Understanding (MoU) with Russia's largest oil company Rosneft, laying ground for energy cooperation in a number of sectors related to crude oil exploration, extraction, and deliveries in Eastern Siberia and the RFE. On May 12-15, 2009, Russia's largest energy company Gazprom signed an agreement in the gas sector development with Japan's ANRE, Itochu Corporation, and Japan Petroleum Exploration Company (JAPEX). Additionally, in June 2013, Gazprom successfully completed a feasibility study on the Vladivostok LNG project with Japan Far East Gas Co. (JFG).² Upon its completion, this project is expected to make an important contribution to the stable LNG supplies from Sakhalin and Eastern Siberia to Japan and the rest of the Asia-Pacific Region (hereafter the "APR"), thereby helping diversify Russia's LNG export routes (see Map 1; Gazprom Press Release, 2011).



Map 1. Energy Development Projects (Natural Gas and LNG) in the RFE.
(Source: Gazprom, 2018).

However, in spite of the increased number of new opportunities in Russia-Japan energy cooperation during this period, many of the initiatives and projects have stalled, were postponed or altogether abandoned, due to the lack of economic feasibility and financial difficulties, further exacerbated by the economic and technological sanctions imposed by the West on Russia in response to the 2014 Ukrainian Crisis. For example, in June 2015, Gazprom's Chairman Alexey Miller announced that the construction of the LNG terminal in Vladivostok was no longer a business priority; therefore, it would unlikely be realized in the near future (Vesti: Ekonomika, 2015). Furthermore, because of the remaining political hurdles and lack of trust in Japan-Russia business relations, historically only large Japanese companies capable to secure government financial and political support were able to successfully engage in joint projects in Russia.

² The Far East Gas Co. (JFG) is a company established by several Japanese firms, such as INPEX, Itochu, Japan Petroleum Exploration (JAPEX), Marubeni and Itochu Oil Exploration (CIECO).

The Sakhalin Oil and Gas Projects

Sakhalin oil and gas development projects, which have been the most successful joint initiatives, are also among the most extensive and largest commitments supported by the Japanese government in the USSR and Russia to date (see Map 2). In the Sakhalin-1 project³, Japan is represented by a consortium of the Sakhalin Oil and Gas Development Company (SODECO), Itochu, and Marubeni corporations, holding a 30% share in total. The Japanese members of the Sakhalin-2 consortium are the Mitsui Bussan and Mitsubishi Shoji corporations, with 12.5% and 10% of the project shares, respectively. Both Sakhalin-1 and Sakhalin-2, which are among the world's largest oil and gas integrated projects, hold the extensive recoverable gas and oil reserves, the development of which has attracted tens of billions of dollars in investment.

The Japanese government has been providing financial assistance to the Sakhalin-2 project since its inauguration, particularly for the construction of the first Russian LNG terminal located in Prigorodnoye on the Aniva Bay of Korsakov District in Sakhalin Region. The Japanese Bank for International Cooperation (JBIC), along with a banking consortium of international (mainly Japanese) banks, agreed to provide a 5.3 billion-dollar package, which helped finance the final stages of the LNG construction project.



Map 2. Overview of Energy Projects in Sakhalin Island.

(Source: Gazprom, 2015).

The LNG production from the Sakhalin-2 project at the new terminal began without delay on March 5, 2009, with the first shipment of LNG (4.8 million tonnes) reaching Japan in early April 2009. By December 2010, the LNG plant was operating at its full production capacity of 9.6 million tonnes a year, constituting 5% of the world's LNG market and about 4.3% of Japan's LNG imports. At that time, about 65% of the total

³ Other international partners in the Sakhalin-1 project include the US' Exxon Mobile and India's ONGC Videsh, holding 30% and 20% shares, respectively.

capacity was contracted on a long-term basis to eight Japanese companies, including Tokyo Gas and Toho Gas, and the remaining 35% to the South Korean and the US markets.

In August 2012, the 500th cargo of Sakhalin LNG was successfully offloaded from Prigorodnoye, and by the end of 2014, the Sakhalin LNG plant produced 10.8 million tons of LNG (about 7% of global and 9% of Japan’s LNG supplies) for exports to Japan, South Korea, China, Taiwan, and Thailand. In addition, from 2011, the Sakhalin-2 project started commercial production of the new “Sakhalin Oil Blend” of crude oil, which was introduced on the Asian market for the first time and was successfully delivered to Japan, China, and South Korea in 2014 (Sakhalin Energy, 2015).

The Sakhalin-1 project was also progressing successfully, aiming at the start of commercial production at its main oil and gas fields (Chayvo, Odoptu, and Arkutun-Dagi) by 2015. Furthermore, after the completion of the 1,800-km Sakhalin-Khabarovsk-Vladivostok gas pipeline, which was constructed ahead of schedule in September 2011, the Russian government announced that it would build an additional LNG terminal in the RFE in order to ship the Sakhalin pipeline gas and LNG to Japan, China, and other consumers in the APR (Sakhalin-1 Project, 2015; Gazprom, *Sakhalin-Khabarovsk-Vladivostok*, 2018).

The ESPO oil pipeline and related projects

Other examples of successful projects with Japanese participation include the construction of the ESPO oil pipeline and development of the related regional infrastructure (see Map 3). The ESPO oil pipeline project was launched in 2004 and was divided into two construction phases. Phase 1, which focused on the construction of the 2,757-km Tayshet-Skovorodino branch to deliver around 600,000 barrels of oil a day (hereafter “bbl/day”), was completed and became operational on December 28, 2009. The first crude supply from the new oil terminal at the Kozmino Bay on Russia’s Pacific Coast (near Nakhodka City in Primorskiy District of the RFE) was shipped in January 2010, thereby officially launching the ESPO Blend exports to the Asia-Pacific market.



Map 3. The ESPO oil pipeline route (as of January 2013).
(Source: Fischer, 2018)

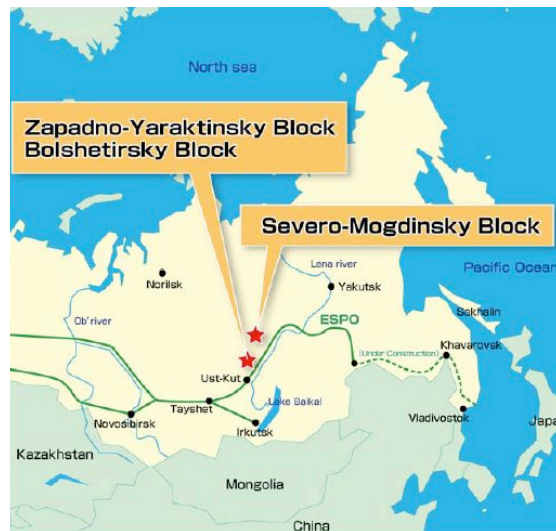
Phase 2 of the ESPO oil pipeline project, connecting Skovorodino with the Kozmino Bay Terminal (about 2,100 kilometers; projected capacity of 30-45 million tons/year), was successfully completed two years ahead of the planned schedule, in December 2012. At the commemorative ceremony, President Putin stressed the critical significance of this project for the regional as well as the national economy. He also declared that the project would help connect the RFE with the rest of Asia and would help deliver the ESPO blend to a large number of Russian energy partners, namely Japan, China, the US, the Philippines, South Korea, Indonesia, Singapore, Thailand, and Malaysia (Kremlin, 2015).

Since the successful launch of Phase 1 of the ESPO oil pipeline, many Japanese energy companies began seeking direct participation in the development of Russia's natural resources in Eastern Siberia and the RFE, both in the upstream and downstream sectors⁴. By taking part in these projects, the Japanese businesses sought to enlarge their presence in the Russian energy market and to ensure that the Russian government would maintain its commitment to the timely and successful completion of the second phase of the ESPO pipeline, which was expected to become a critical link to the energy supply route between the RFE and Japan.

In April 2008, Japan's state-run Oil, Gas and Metals National Corporation (JOGMEC) announced that it secured the rights to develop the Severo-Mogdinsky oil and gas block in Irkutsk Region (see Map 4), thereby obtaining access to Russian oil resources in Eastern Siberia. The business deal was in line with "the promotion of collaboration between Japan-Russia private enterprises outlined by 'The Japan-Russia Action Plan' adopted during the Russia-Japan summit in January 2003 and 'The Initiative for Strengthening Japan-Russia cooperation in the Far East and East Siberia' agreed by the countries' leaders in June 2007" (JOGMEC, 2010). In order to explore and develop the acquired area, JOGMEC established a joint venture with Russia's Irkutsk Oil Company (INK) by providing the latest technology for the block's seismic studies and exploration and jointly investing 95.8 million dollars in this project.⁵

⁴ The upstream sector refers to the exploration and production (E&P) sector of energy operations and involves the searching for and the recovery and production of crude oil and natural gas. The downstream sector focuses on the refining of crude oil as well as the selling and distribution of natural gas and products derived from crude oil (such as liquified petroleum gas (LPG), gasoline or petrol, jet fuel, diesel oil, other fuel oils, asphalt and petroleum coke).

⁵ Following the successful Putin-Abe Summit in June 2007, INK and JOGMEC formed a 51:49 joint venture ("INK-Sever" LTD) specifically to launch their joint development of Severo-Mogdinsky oil and gas block.



Map 4. JOGMEC: the ESPO oil pipeline-related projects.
(Source: JOGMEC, 2010)

Aiming at the joint development of energy infrastructure and expansion of crude oil production in Eastern Siberia for shipments to Japan, JOGMEC established two joint ventures with local Russian energy companies in May 2009. The main purpose of the first project, established between JOGMEC and Russia's "United Oil Group Ltd" (holding 49% and 51% shares, respectively), was to carry out a five-year feasibility study and prospecting work in Russia's Krasnoyarsk Territory, Irkutsk Region, and Sakha Republic (Yakutiya). The second joint-venture, between JOGMEC and Russia's "INK-Zapad", was created to explore two additional oil and gas blocks of Bolshetirsky and Zapadno-Yaraktinsky in the same region (see Map 4). On September 24, 2013, it was reported that the second project expanded its operations and "moved to a new stage after joining of Itochu Corporation and INPEX Corporation, two major Japanese private companies, to the project as shareholders of JASSOC, which is a subsidiary of JOGMEC" (JOGMEC Press Release, 2013).

During the same period, Japan and Russia also held discussions on a number of projects for the downstream sector development in Eastern Siberia and the RFE. One such project focused on the participation of Japanese companies in the construction of Rosneft's refinery (planned capacity of 200,000-400,000 bbl/day) at the final destination point of the ESPO oil pipeline. In November 2009, JOGMEC and INK signed a feasibility study agreement to develop gas-to-liquid (GTL) capacity in Eastern Siberia and the RFE (Russia and CIS Oil and Gas Weekly, 2009, p. 15).

These joint energy projects have been not only mutually beneficial for the economies of Japan and Russia but also critically important for Russia's regional development. While utilizing Japanese investment and technological support, the Russian government granted Japanese businesses access to the Russian downstream and upstream sectors and, in a long-term perspective, offered them other important benefits of joint development of energy resources and infrastructure development in the Russia's Far East, Eastern Siberia, and other remote areas rich in oil and gas resources. In turn, energy development in Russia's remote areas was helping boost their transport and service infrastructure, and economic development of the areas as a whole.

In addition to the aforementioned projects focusing on the traditional sectors of energy cooperation, Japan-Russia cooperation has been growing in other fields, such as nuclear and renewable energy resources as well as environmental protection, energy efficiency and conservation. Since Russia lacks experience in these areas (with exception of the nuclear sector), Japan is seen as an important partner that could contribute its expertise and advanced technology in such projects.

Prior to the March 2011 Fukushima nuclear disaster in Japan, Japan and Russia had been expanding their ties in the nuclear energy sector as well. In May 2009, Japan and Russia signed an agreement on cooperation in peaceful use of atomic energy, which stipulated that Russia would deliver supplies of low-enriched uranium to Japan, while Japan would supply Russia with advanced nuclear power plant technology in exchange. It also envisioned increasing the share of Russia's presence in Japan's nuclear energy market from its current 15% to 25% in the near future (World Nuclear News, 2009).

The Fukushima nuclear accident that followed the Great Eastern Earthquake in Japan's Tohoku region on March 11, 2011 brought a new set of realities in Japan's energy policy as well as in the two countries' energy relations. At the end of 2011, only 16 out of 54 existing nuclear plants were still operating in Japan, and currently all but 5 of the nuclear reactors are offline. While it is politically and economically difficult to envision nuclear power in Japan being completely phased out, its share will likely remain relatively small in the total power general mix. Therefore, in order to compensate for the lost power generation due to the decline in its nuclear power sector, Japan needs to increase supplies of other primary energy resources, such as oil, gas and coal, preferably from reliable suppliers in its close proximity, such as Russia.

Key developments in Russia-Japan energy relations since 2014

In late 2014, in response to Russia's interference in Ukraine and annexation of Crimea, the US and the rest of the Western nations imposed economic, trade, and technological sanctions on Russia. Japan, as a member of the G-7 group, also introduced a package of sanctions, albeit a mild one, placing various restrictions on a number of Russian businesses, especially those operating in Crimea. The Western sanctions have undoubtedly hurt Russia's economy, including trade, technological and economic cooperation, particularly in the field of energy. The difficult economic situation in Russia was exacerbated by a significant drop in energy prices that further undermined Russia's economic growth and put in jeopardy the large-scale energy development projects. Average Brent Crude Oil price, which stood at \$109/bbl in the first half of 2014, fell by more than 70% to about \$31/bbl by January 2016 (EIA, Brent Spot Price, 2017). Although oil prices have recently recovered to the levels of \$75-80/bbl, the aforementioned two factors have simultaneously threatened Russia's chances for energy exploration, development, and investment, especially large-scale projects domestically and abroad, including several Russia-Japan energy projects and initiatives.

In spite of the above challenges, Russia remains a global energy superpower and hence an important energy partner for Japan and other Asian partners. Presently, it is the world's top natural gas exporter and the second largest natural gas producer (with the export volume of 197.7 billion cubic meters [bcm] and the production volume of

598.6 bcm based on the 2015 estimates). It is also the world's top oil producer and second largest oil exporter (at the rates of 10.55 million bbl/day and 5.116 million bbl/day, respectively, based on the 2016 estimates) as well as the world's second largest exporter of refined petroleum products (at the rate of 3.133 million bbl/day based on the 2014 estimates) (CIA World Factbook, 2018).

Because of Japan's participation in the Western sanctions regime vis-à-vis Russia and due to Russia's (although limited) retaliating measures, there has not been many new, significant developments in the two countries' energy relations aside from the joint projects already onstream. However, in 2016, Russia and Japan have entered a new stage not only in their energy cooperation but also in their bilateral relations as a whole. In 2016, PM Abe and President Putin held three important meetings (two summits in Sochi and Yamaguchi and a meeting at the Eastern Economic Forum⁶ in Vladivostok), during which they discussed progress in their countries' ties in various areas, including joint energy and infrastructure development in the RFE and Eastern Siberia. The ultimate goal of these frequent meetings, especially for Japan, was to advance bilateral negotiations on the Kuril territorial dispute, aiming at signing a peace treaty to formally settle the two countries' WWII grievances.⁷

During the same year, a number of important meetings and visits by the two countries' ministers in charge of trade, energy, and cooperation with each other also took place on a regular basis. These meetings further solidified the two countries' commitment to the acceleration and expansion of their economic ties, culminating in the agreement on about 100 bilateral projects and the establishment of the joint one-billion-dollar fund to help facilitate financing of some of those projects.⁸ Furthermore, at the summit meeting in Sochi on May 6, 2016, Japan announced it would be launching a "new strategy" vis-à-vis Russia focusing on joint economic cooperation in eight areas, including energy, developing industries and export bases in the RFE, and cooperating on advanced technologies (at an estimated cost of more than one trillion yen, or 9.6 billion dollars). Among the proposed projects for energy cooperation, the two countries' leaders revisited the construction project of a petrochemical plant near Vladivostok (at an estimated cost of 600 billion yen) as well as development of oil and natural gas in Sakhalin, Siberia, and the Arctic Sea area (Japan Today, 2016).

The progress in the eight-item cooperation plan was later confirmed during the St. Petersburg International Economic Forum in June 2016 by Japan (represented by

⁶ In September 2015, President Putin personally launched the Eastern Economic Forum in Vladivostok, thereby reiterating Russia's determination to accelerate the development and export of natural resources from the RFE to the countries in the Asia-Pacific. The Forum has become an important annual event held every September with personal attendance by the Russian president.

⁷ Japan and the Soviet Union/Russia have been entangled in the territorial row over the four southernmost Kuril Islands of Shikotan, Kunashir, Iturup, and the Habomai (the "Northern territories," as Japan calls them, or the "Southern Kurils," as Russia refers to them) since the end of WWII. The territorial dispute, which has dominated the political, economic, and even cultural relations between Russia and Japan for more than a half century, serves as the main reason for the two countries failing to settle their borders. It also prevented them from signing a peace treaty following World War II.

⁸ The joint fund, comprised of 500 million dollars provided each by the JBIC and the Russian Direct Investment Fund (RDIF), will help finance a large number of joint projects in Russia. The two entities have been in partnership since 2013 to provide financial assistance to Japanese companies doing business in Russia (see Gale, 2016).

Hiroshige Seko, Minister of Economy, Trade and Industry and also for Economic Cooperation with Russia) and Russia (represented by Maxim Oreshkin, Minister for Economic Development and President Putin's Special Representative for Trade and Economic Cooperation with Japan). Minister Seko also visited Russia on November 2-6 to inaugurate and, together with Russian Energy Minister Alexander Novak, to chair the first meeting of the Japan-Russia Energy Initiative Council. During the council meeting, it was announced that three working groups, focusing on bilateral cooperation in hydrocarbons, energy efficiency and renewable energy, and nuclear energy, will be established to oversee bilateral projects in these areas. These new developments at the government and institutional levels suggest that Russia and Japan have reached a new level in their energy cooperation and have diversified their cooperation in various sectors, not limited to traditional oil and gas projects.

In the oil sector, Russia-Japan energy ties greatly benefited from the increase in the crude oil deliveries through the ESPO oil pipeline to Asian customers, after the pipeline oil-pumping capacity was expanded from 50 to 58 million tons of crude oil per year in 2014. Also, there has been a consistent (6.6-fold) increase in Russia's crude oil supplies to Japan between 2005 and 2016 (EIA, Russia Reports, 2005 and 2016). In the gas sector, in addition to the continuing development of Russia's pipeline gas capacity and infrastructure in the RFE, the Russian government focused on boosting Russian LNG exports in the APR. For example, deliveries of Russian LNG from the Sakhalin-2 project to Japan (which recently became the world's largest buyer of LNG), reached 10.8 million tons by the end of 2014 and currently occupy a 9% share in Japan's total LNG imports.

Among other bilateral projects that have been realized as a result of a new momentum in the two countries' relations are the Yamal LNG (led by the Russian largest independent natural gas producing company "Novatek" and located in Yamalo-Nenets Autonomous Okrug, north of the Arctic Circle) and the Sakhalin LNG expansion projects. Japan (represented by the joint venture of engineering firms Technip, JGC and Chiyoda) was participating in Russia's Yamal LNG project prior to the 2014 Ukrainian crisis. Presently, the project is still an undergoing venture, which includes the construction of additional two LNG trains, export and other facilities, reaching the capacity of 5.5 million tons/year in the future, in which the Japanese firms will continue playing an important role in providing engineering expertise and possible future financial investment, albeit subject to the sanctions' limitations. The ongoing LNG project and the planned Arctic LNG-2 project will also be supported by the JBIC's financial assistance offer, which was announced in late 2016.

Another recent proposal for Japan-Russian energy cooperation came from Gazprom, which, along with its Sakhalin-2 partners, announced it would build an additional Sakhalin LNG platform in order to increase LNG exports to Japan starting from 2022. In his interview with the Nikkei Asian Review, Gazprom's Deputy Chairman Alexander Medvedev declared, "if there is enough demand in Japan, we will make the expansion of this business a top priority, creating a pillar for future cooperation between Russia and Japan" (Ikeda, 2016). Gazprom also announced that, in response to "strong, repeated requests" from Japanese business and political leaders, it would be conducting a feasibility study jointly with the Japanese partners for the gas pipeline construction mega-project connecting Sakhalin to Japan and would revisit the shelved

plan to build an LNG plant in Vladivostok, which would serve as the “export hub to Japan” upon its realization (Ibid).

While technological assistance and capital investment offered by Japan is very much welcome by Russia, the Japanese government and financial institutions have to operate carefully in Russia in order not to violate the West’s sanctions regime that Japan is part of. Belov (2016) observes that “elsewhere, from Yamal, to Tatarstan, to Yakutia doors are opening for Japanese investors, and opening wide. With the carrot of a potential territorial resolution in hand – and with Tokyo seemingly willing to splinter the U.S. strategy of isolation – Russia is operating from a relative position of strength”. Indeed, the main reason for the Japanese government’s willing to take the risk of possible criticism from the rest of the G-7 group, particularly the US, is that it wants to make progress in the Kuril territorial negotiations with Russia. In late 2016, it was reported that the Japanese government, hoping to pave the way for a breakthrough in the territorial row negotiations with Russia, began actively urging Japanese businesses to invest in Russia, specifically in the projects under Abe’s “eight-point economic plan.” In spite of this pressure, it remains a difficult task to attract large Japanese private-sector investment due to various risks associated with doing business in Russia, which, in addition to the cost-benefit uncertainties, include the unpredictable investment environment, widespread corruption and red-tape, changeable legal system, and the fallout from the Western sanctions (Umekawa and Sieg, 2016).

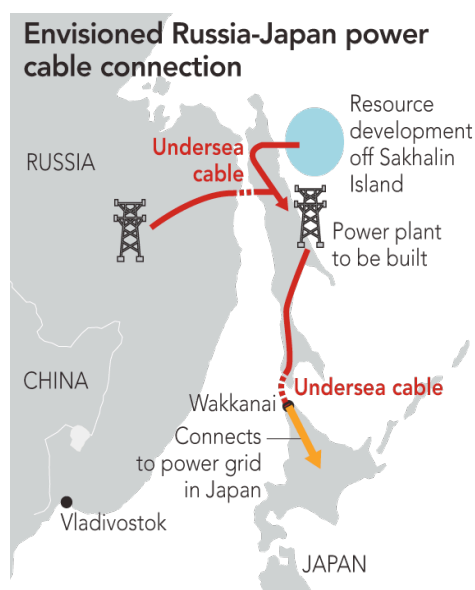
In spite of a considerable potential for Japanese-Russian energy cooperation, the number of new concrete joint projects and initiatives that have been, or are in the process of being, fully realized remains relatively small. The most difficult problems affecting the prospects for the expansion of the two countries’ energy ties stem from the Western economic and technological sanctions, unstable crude oil prices, and the unsettled political issues, such as the Kuril territorial dispute and the absence of a peace treaty, undermining a full normalization of the two countries’ ties. Furthermore, Russia-Japan energy cooperation in the traditional, fossil-fuel sectors may also suffer as a result of the future adjustments in Japan’s energy demand due to the shift away from overreliance on fossil fuels and a possible return to a larger nuclear energy share, which was proposed in the recently adopted energy plan of the Japanese government (Yamaguchi, 2018).

Future prospects in Russia’s energy cooperation with Japan

The future Japanese-Russian energy projects will most likely be related to the existing large-scale undertakings in Sakhalin, the RFE, and Eastern Siberia. In addition, a number of new opportunities for potential bilateral cooperation will likely be found in the fields of energy conservation and efficiency, promotion of non-fossil and renewable energy resources, and advancement of clean energy technologies.

Since the launch of Japan’s “new approach” aiming to boost economic ties with Russia, Japan’s and Russia’s governments as well as their business and industry leaders have been revisiting several large-scale, ambitious mega-projects, namely the construction of the Sakhalin-Japan gas pipeline and Sakhalin-Japan power grid. Both projects have been considered in the past but had to be abandoned due to their prohibitive costs, seismic and environmental concerns, and the impact on the regional

fishing industry. However, after Russia and China concluded their historic, multibillion-dollar gas deal in May 2014⁹, a group of Japanese lawmakers from the ruling coalition parties, the LDP and Komeito, began lobbying for the construction of a gas pipeline to deliver the Sakhalin gas to Central Honshu. The proposal called for the construction of a 1,500-km pipeline with the annual capacity of 20 bcm at the cost of approximately 7 billion dollars (Eurasia News Online, 2016). So far, there has not been any progress on this initiative due to the uncertainty over its profitability and the lack of interest from Russia that seemed to favor a more economically and logistically attractive option of the LNG deliveries to Japan. Furthermore, in addition to the project's high cost estimates, the Japanese business leaders remain wary of overreliance on Russia for gas supplies, instead preferring the LNG option, especially because of considerable investment in the existing LNG receiving facilities in Japan.



Map 5. “Envisioned Russia-Japan power cable connection”.
(Source: *Eurasia News Online*, 2016).

Another multibillion-dollar mega-project involves the construction of the electric power grid connecting Sakhalin and Japan by an underwater electric cable (see Map 5), which could further connect the two countries to China and South Korea as well, creating the so-called “Asian Supergrid.” This project, however, seems to be even less likely to be materialized in the near future. In addition to the high price tag, it would require legal and logistical adjustments in Japan’s electric grid system to be able to accept Russian electricity and, as with the Sakhalin-Japan gas pipeline project, it would also result in Japan’s energy dependence on Russia, which, along with the outstanding political problems, would only increase Japan’s risk and vulnerability vis-à-vis its northern neighbour.

⁹ On May 21, 2014, Russia’s Gazprom and China’s CNPC concluded a long-term agreement at the unprecedented cost of 400 billion dollars that envisions deliveries of 33 (eventually up to 38) bcm/year of pipeline gas for the period of 30 years that will be transported by the “Power of Siberia” pipeline from Russia to China starting in 2019. This agreement also stipulated the multibillion-dollar additional construction of a massive gas infrastructure in Russia’s Eastern Siberia to support this commitment.

Conclusion: Impact of Russia's energy "pivot" to Asia on its overall relations with Japan

In 2012, when Putin and Abe became the Russian president and the Japanese prime minister for the third and second term, respectively, Russia and Japan have entered a new stage in their relations. In spite of the continuing economic and technological sanctions placed by the West on Russia in response to the 2014 Ukrainian crisis, their impact on the two countries' economic ties and trade relations has been relatively mild, as their bilateral cooperation continues to steadily progress.

Growing Japan-Russia economic ties and energy cooperation has been a welcome development in the two countries' relations as a whole. The most successful developments in the bilateral energy cooperation to date include the inauguration of the Prigorodnoye LNG plant in March 2009 under the Sakhalin-2 Project; the December 2009 launch of the Kozmino Bay oil terminal and the December 2012 completion of Phase 2 of the ESPO oil pipeline project; the completion of the Sakhalin-Khabarovsk-Vladivostok gas pipeline in September 2011; joint energy development projects in Eastern Siberia with JOGMEC; and the expansion of Russia's LNG production capacity for the shipments to the APR. These projects serve as important milestones, helping bring Japanese-Russian energy cooperation to a new level, marking the beginning of large-scale energy exports from Russia to Japan, and opening Russia's access to Asia-Pacific energy markets.

Based on the close linkage between politics and economics in the two countries' relations, it is plausible to argue that through deeper economic integration and energy cooperation, Japan and Russia will be able to improve their political ties as well. Both Japan's and Russia's leaders today agree that the absence of a peace treaty in their relations, in Putin's words, is "abnormal," and that they need to place a high priority on signing a peace treaty in the near future as the key prerequisite for the full normalization of their relations (Japan Times, 2013). Minister Seko, during his interview with the Financial Times in December 2016, stressed the importance of Japan's continuing expansion of its economic ties with Russia, stating that Japan prefers "a win-win relationship. Without thinking about the Northern Territories too much, we want to set up economic projects of benefit to Japan. But if both countries can work together and develop a really good relationship, then it'll help make a better environment for PM Abe... to conduct Northern Territories negotiations" (Harding, 2016).

It is crucial for the two countries to continue advancing their bilateral relations in various areas, especially in the strategically important energy sector, in order to create opportunities to deepen their dialogue in search of timely, effective, and mutually acceptable solutions to their outstanding problems, including the Kuril territorial dispute. Because Russia and Japan are the key players in the world energy market, particularly in the APR, their successful energy collaboration not only would serve their respective economic and energy needs but also would improve their political relations. This, in turn, would contribute greatly to the strengthening of energy security, cooperation, and political stability in the APR as a whole.

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