Chinese, Russian, Japanese, and Korean Strategies for Northeast Asian Cross-Border Energy Connectivity

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In 2018, research was underway in Northeast Asia on several trilateral and multilateral initiatives for cross-border infrastructure connectivity involving China, Russia, both Koreas, and Japan. Infrastructure included railway lines, cross-border oil and gas pipelines, and power grids. Although most discussions of infrastructure group energy and railroad infrastructure together, energy infrastructure differs from rail transport due to a greater potential for asymmetrical dependence. Reviewing these projects, this chapter analyzes and compares the strategies of the five parties in the region that are exploring new connectivity.

Northeast Asian institutionalization is understood to require a concrete functional area, which energy has appeared to be. However, there has long been a failure to form a regional political consensus on an energy regime. According to analysis from the Korea Energy Economics Institute (KEEI), a process is needed for regime formation: a political consensus followed by creation of an institutional framework, and numerous joint feasibility studies, which would lead to concrete regional projects. Alternatively, Northeast Asian countries could start with a regional cooperative energy project on a commercial basis, and then form a multilateral cooperative framework around it which would, over time, become institutionalized.[1] A core question is whether such a framework will be China-centered and largely bilateral in nature or, perhaps at South Korea's initiative, truly multilateral in nature.

China as the world's largest importer of energy resources might have been at risk for oil import dependency if it had not countered that risk with the strategy of the Belt and Road (BRI). Since 2013, Beijing has promoted a BRI that contains six energy channels, all of which are bilateral channels for importing oil, natural gas, and other raw materials into China.[2] It is a network of energy infrastructure centered on China. Beijing has used the BRI to create bilateral asymmetric dependencies for exporting countries through its investment, exports and debt, while avoiding Chinese dependency on exporting countries. Chinese efforts at constructing energy channels, that might lead to Beijing's expanded role in global energy governance, have focused on organizations that had no members from the West—the BRICS, the Shanghai Cooperation Organization (SCO) with eight members, and ASEAN. Several SCO countries—Turkmenistan, Uzbekistan, and Kazakhstan—export oil and gas to China. Most ASEAN countries have become dependent on China for markets and investment.

In 2012, a Chinese energy analyst told the author that Beijing did not want any Chinese analysts discussing Northeast Asian multilateral energy cooperation although at the time it was not clear why. Chinese emphasis on bilateral energy cooperation would become clearer a year later when the BRI was announced in September 2013, and then elaborated further in the BRI Action Plan: regional energy channels should all radiate out from China to energy exporting countries along economic corridors. If China participated in a Northeast Asian energy regime, China planned to be at the center of it. Since then, its bilateral energy links to Russia have widened, even as others have kept discussing additional, multilateral linkages.

South Korea's "New Northern Policy" (NNP) and the "Asian Super Grid," involving Japan, Russia, Mongolia, South Korea, and China, have in common the fact that they do not conform to the BRI's strategy of bilateral energy channels and are not centered on China. These initiatives promote energy infrastructure connectivity that could form the core of a Northeast Asian multilateral energy regime. The Asian Super Grid is evaluated by Japan and South Korea on a commercial basis. The NNP seeks to forge a political consensus while simultaneously proposing projects. Seoul has spurred interest in such new channels.

Before 2018, Chinese analysts claimed Beijing was not considering expanding BRI into Northeast Asia—Japan, South Korea, and North Korea—because of tensions on the Korean Peninsula, and because Chinese companies building infrastructure lacked comparative advantage in relation to South Korean and Japanese companies.[3] There were, however, numerous Chinese writings on linking BRI with South Korea's Eurasia Initiative and NNP.

In 2018 Beijing changed its policies and studied incorporating Northeast Asia into BRI, primarily South Korea's NNP, which partners with Russia, but also the Asian Super Grid, a project centered on Mongolia, initiated by Japanese and South Koreans with Russia a partner. Both these projects interrupt the BRI's bilateral energy channels and undermine older Chinese regional projects meant to create natural economic territories centered on China such as the Greater Tumen Initiative and the economic integration of China's Northeast and the Russian Far East. The BRI was expected to revive these two Chinese initiatives which had faced resistance from neighboring countries in the past.

This chapter assesses the plans Beijing had for incorporating Northeast Asian regional energy initiatives into the BRI in 2018, and their prospects for success. What strategies do South Korea, Russia, and Japan have to link the three regional energy projects—BRI, Asian Super Grid, and the NNP—without BRI coopting and absorbing the other two projects? How links will develop is important for not only the geoeconomics but also geopolitics in this region.

Trilateral Russia-South Korea-North Korea Pipeline

Russia is geographically close to the Korean Peninsula, which has historically been a source of threat for Russian Far East security. In April 2017, Moscow was reported to have moved troops to the North Korean border, and civilians away from the border, in response to fears of a U.S.-DPRK military clash over Pyongyang's nuclear program. Beijing also moved troops to its border with North Korea. Northeast Asian energy cooperation that includes the DPRK is considered one means to create a more stable and peaceful Korean Peninsula.

Beijing and Moscow initiated oil pipeline discussions in 1993. A decade later Tokyo, led by Prime Minister Koizumi, tried to redirect the pipeline towards Vladivostok which would then export to Japan. The Sino-Japanese struggle over the Russian East Siberian-Pacific Ocean oil pipeline (ESPO) lasted from 2003 to 2005. At present ESPO transports oil to both China and to Kozmino, near Vladivostok, which exports to Japan, South Korea, the U.S. and China. A Sino-Russian gas pipeline, the Power of Siberia, will be completed in 2019.

Chinese analysts have suggested that Sino-Russian pipelines could form the core of a Northeast Asian energy regime, but there is no regional response to these suggestions. The Sino-Russian oil and gas pipelines never appeared to have the capacity to form the basis for a Northeast Asian multilateral regional energy regime.[4] The bilateral Sino-Russian energy relationship is deepening mutual interdependence,[5] but it is often plagued by price disputes. Chinese analysts have also suggested that a proposed BRI China-Russia-Mongolia economic corridor could form the core of a regional energy regime. BRI is now the focus of planning.

The idea for a Russian-Korean gas pipeline was proposed in 1991 as the Vostok Plan, a gas pipeline from Vladivostok to South Korea transiting North Korea.[6] In 2003, the U.S. had considered a Russia-Korean gas pipeline as an incentive to end North Korea's nuclear program, using gas from ExxonMobil in Sakhalin I,[7] but this initiative was not pursued. A Korean analyst suggested that South Korea had been too dependent on China, Japan, and Russia to initiate construction of regional infrastructure, and would need to take a leadership role itself.[8] South Korea has, thus, systematically pursued an institutional framework for Northeast Asia energy cooperation, beginning with a symposium as early as 2001.

At first, Seoul called upon an international organization, the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), to support institutionalization. At one point, UNESCAP functioned as the secretariat, hosting in November 2005 an Ulaanbaatar meeting of the Korean initiative adopted the Intergovernmental Collaborative Mechanism on Energy Cooperation in North-East Asia, with a project for Energy Cooperation in North-East Asia (ECNEA). The work plan would be coordinated by KEEI with partner research institutes in each country. China's response was to propose very limited functions for the organization, and it suggested countries should simply strengthen bilateral energy cooperation. Russia and Mongolia joined, but China and Japan did not.

Russia's membership in the Intergovernmental Collaborative Mechanism on Energy Cooperation in Northeast Asia was attractive to Moscow due to the fact that the South Korean initiative had created a producer-consumer dialogue, Russia's main goal, as shown in analysis from the Energy Research Institute of the Russian Academy of Sciences. The project would give Russia a pathway into the Asia Pacific that was not dependent on China or Japan. This would open up a new market for Russian energy exports and, thus, spur economic development of the Russian Far East. Russians hoped for technological expertise, investment from major oil corporations in production and transportation, giving Russian companies greater access to Northeast Asian markets. Moscow sought the "integration of Northeast Asian countries into a unified Eurasian energy system," integrating Northeast Asia with Central Asia, which would give Russia a larger leadership role.[9]

The November 2009 "Energy Strategy of Russia for the period up to 2030" had authorized exploration and development of East Siberian and Russian Far East hydrocarbon resources. The strategy mentions exports to Northeast Asian countries, but energy cooperation is mentioned only within a unified Eurasian energy area that included the Commonwealth of Independent States (CIS) and the SCO, primarily a Eurasian energy area with Russia at the center, rather than a Northeast Asian energy regime. Agreement was reached on the Russian-Korean project in September 2008, during a bilateral summit in Moscow, in a memorandum of understanding signed between the state-run Korea Gas Corporation (Kogas) and Russia's Gazprom. But the project was stalled due to North-South Korean tensions. The third round of the Russian-Korean Strategic Dialogue on November 23, 2011 in Seoul, discussed tripartite projects: the gas pipeline from Russia through North Korea to South Korea, a power transmission line on the same route, and a railway network between Russia and the two Koreas. Gazprom and Kogas introduced a joint roadmap for cooperation in September 2011.

North Korean leader Kim Jong-il had given his support, and after his death in December 2011, the new leader, Kim Jong-un, continued to support the project. North Korea was a regime-taker in this initiative as it was in all Northeast Asian energy initiatives. However, frequently it demonstrated its ability to cause a delay or obstruct initiatives, primarily by provoking Western sanctions with its nuclear program and missile testing.[10]

In March 2012, South Korean president Lee Myung-bak claimed that the Russian-Korean pipeline would be his legacy. He had originally conceived of the pipeline two decades before when he was CEO of Hyundai Construction and it was called the Vostok Plan.[11] China had discouraged the Russian-Korean pipeline, however, promoting an alternative route. On February 16, 2012, China National Petroleum Corporation (CNPC) proposed to Korea National Oil Corporation to build an undersea gas pipeline from Weihai, Shandong Province to South Korea, bypassing North Korea. The South Korean government and Kogas considered the viability of the proposal. The natural gas supply Beijing was offering would come from Russia. Beijing hoped the extension to South Korea would give it greater bargaining power with Moscow over natural gas prices.[12] This proposal appeared to be a revival of the late 1990s' Kovykta gas pipeline project from Russia that would transit China into South Korea. Beijing's pipeline proposal appeared to undermine Moscow's Trans-Korean pipeline and would be compatible with the BRI, which had not yet been announced. The Chinese route would prevent Russian influence from expanding in North and South Korea, displacing Chinese influence. By the end of 2012, South Koreans were divided over the alternative routes, and LNG imports from North American shale gas had become still another, more stable option for South Korea.

UNESCAP organized a Track 1½ "North-East Asia Sub-regional Consultation Meeting," in November 2012 in Incheon, South Korea as preparation for its first Asian and Pacific Energy Forum (APEF), an official energy ministers meeting hosted by Vladivostok in May 2013. Not surprisingly, at the November 2012 UNESCAP meeting, Chinese participants spoke on China's bilateral energy relations although at that time the BRI had not yet been introduced. Korean participants spoke on the need to manage Northeast Asia's organizational deficit, arguing that the region needed a "more effective institutional design" by either building on an existing institutional framework or creating a new one.[13] The meeting report, submitted to the 2013 APEF, noted that the benefits of cooperation were not clearly visualized by the region despite the large number of initiatives for Northeast Asian energy cooperation. A resolution included regional cooperation in connectivity of physical infrastructure for cross-border energy trade in oil and gas pipelines and power grids.[14] The 2018 2nd APEF meeting supported the same goals.

In October 2013, South Korean president Park Geun-hye announced Korea's Eurasia Initiative, which included development of international energy networks and was primarily focused on the Russian Far East and Central Asia. China was included in the concept of Eurasia, but it was not at the center. The Eurasian Initiative proposed trilateral cooperation among North Korea-South Korea-Russia and trilateral cooperation among North Korea-South Korea-China, placing Seoul at the center.

In 2016, Russia indicated interest in what it called the Russia-Japan energy bridge, meaning the Asia Super Grid. The Russian expectation was to make Siberia and the Russian Far East the hub of a regional energy network.[15] The Russian vision lacked details. In 2018, Moscow appeared to be more of a regime-taker with participation in the Asian Super Grid.

The NNP continued the Eurasia Initiative. After his election, Moon created the Presidential Committee on Northern Economic Cooperation (PCNEC) and in August 2017 appointed Song Young-gil to lead it. In September 2017, Moon proposed the NNP at the third Eastern Economic Forum held in Vladivostok. It included the economic and energy integration of the Russian Far East, North Korea, and South Korea. Moon's "nine bridges of the NNP" included a natural gas pipeline. Moon proposed starting construction of a Northeast Asian super grid for the purpose of creating a Northeast Asian energy community.

Putin has used the Eastern Economic Forum each year to introduce his New Eastern Policy for Russian Far East economic development. Seoul and Moscow agreed to conduct a joint study to check the feasibility of cross-border energy, railway, and natural gas projects. The NNP expands South Korean-Russian bilateral cooperation into a region-wide formation.

In December 2017, Moon visited Beijing to repair relations made tense the previous year by Seoul's deployment of Terminal High Altitude Area Defense (THAAD), a U.S. missile defense system. Beijing had responded with an undeclared economic boycott, which Xi had apparently partially lifted prior to Moon's visit. The meeting was not totally a success. Xi pressed Moon on the THAAD issue. Two South Korean reporters were beaten thuggishly by Chinese security agents. North Korean denuclearization was discussed, but without resolution. Korean media thought Moon was not treated respectfully by Xi. During the visit, Moon proposed cooperation between his NNP and New Southern Policy and BRI, but with so many pressing issues, this was given scant attention.

A Russian economist, Pavel Minakir, was not very optimistic on Russian-Korean trilateral cooperation. He identified many impediments: international sanctions on Russia and North Korea would block financial assistance from international organizations and companies; Russia and South Korea have different goals in trilateral cooperation; Russian companies want access to the South Korean market; and South Korea's goal is economic integration with North Korea. Minakir felt Russia and the Koreas would have to coordinate their actions with China,[16] in effect, giving China veto power over Russian-Korean trilateral projects.

In fact, Western sanctions on Russian-Japanese and Russian-South Korean energy cooperation are not a primary factor. Japan and South Korea have not imposed energy sanctions on Russia. Their companies have ways to utilize the sanctions' loopholes.[17] Yet, Russian energy analysts are generally not inclined to offer designs for Northeast Asian regional institutions. Russian energy experts have traditionally tended to be engineers and, more recently, energy economists. There has not been a large number of Russian publications on energy cooperation that reflect an understanding of energy regime building or institutional design. Russia has been considered a regime-taker in Northeast Asian energy dialogues. However, Russian suggestions have been incorporated into Korean initiatives,

such as the Eurasian Initiative, which adopted the Russian idea of linking the Russian Far East, Central Asia, and Northeast Asia. The Asian Super Grid initiative proposes linking Mongolia, Siberia, the Russian Far East, China, Japan, and North and South Korea. Russia's interest in a producer-consumer dialogue is realized in regional projects, and it has chosen to work through UNESCAP, participating in its APEF meetings and other consultations on regional energy cooperation. Putin has also used the Eastern Economic Forum meetings to discuss regional energy infrastructure projects.

Asian Super Grid

Japan has cooperated with Russia in oil and gas since the 1970s. More recently, in May 2016, the Abe government introduced an eight-point economic cooperation plan with Russia that included energy and infrastructure. The Japan Bank for International Cooperation (JBIC) signed a memorandum of understanding (MOU) with Novatek, Russia's Yamal LNG operator. Many Japanese corporations have investments in Russia's oil and gas sector. During the 2018 Eastern Economic Forum, additional MOUs were signed with Novatek and Gazprom. However, in the Asian Super Grid, a Japanese company (not the government) has joined with Mongolia and South Korea in a Northeast Asian electricity grid based on renewable energy, the Gobitech Initiative. The concept of the Asian Super Grid was announced in 2012 by Softbank CEO Son Masayoshi, a project of his Japan Renewable Energy Foundation (renamed as Renewable Energy Institute), in the post-Fukushima shift in Japan toward renewable energy.

The Gobitech Initiative was introduced in 2009, published in the *Korea Herald*, by Bernhard Seliger and Gi-Eun Kim. Mongolia's Gobi Desert would be the site of a giant wind farm that would feed a regional grid linking Mongolia with high voltage direct current (HVDC) transmission lines to Japan, South Korea, China, and Russia. SB Renewables formed a joint venture with Mongolia's Newcom. It would be a smart grid using IT to manage fluctuating power supply with fluctuating demand, promoting free trade in clean electric power.

In 2012 the Mongolian Energy Commission partnered with the Hanns Seidel Foundation, Korea to hold a Gobitech conference. Japan's Renewable Energy Institute became a partner. In 2014, Mongolia hosted a Gobitech forum and issued a report on forming a regional grid, the "International Symposium: Roadmap to Asia Super Grid." The partners in Gobitech are Energy Charter Secretariat (ECS), Energy Economics Institute of the Republic of Korea (KEEI), Energy Systems Institute of the Russian Federation (ESI), Ministry of Energy of Mongolia (MOE), and Japan Renewable Energy Foundation (JREF). Mongolia has numerous Soviet-era power plants, coal-fired and inefficient. Gobitech promotes clean energy production, solar and wind, in the Gobi Desert for transmission on a regional grid. Russia's Irkutsk would supply hydropower from the North. Gobitech's vision is Mongolia and Russia exporting clean energy power to Shanghai, Seoul, and Tokyo.[18]

KEEI was a partner in the 2014 report. Korea Electric Power Corporation (KEPCO), which dominates South Korea's electricity industry, supported regional cooperation. KEPCO had presented its vision of a regional super grid in 2014. In 2016, the Asia International Grid Connection Study Group formed and KEPCO joined.

Gobitech promotes a legal framework, Energy Charter Treaty (ECT), in order to protect intellectual property rights, attract investment, and maintain a reliable transit regime. Because of cross-border energy infrastructure, cooperation was needed from international organizations and financial institutions—APEC, ESCAP, International Renewable Energy Agency (IRENA), the EC, and ADB. Gobitech recommends forming a Northeast Asian communications platform for consultations, leading to a multilateral energy regime, and has suggested utilizing South Korea's Intergovernmental Collaborative Mechanism on Cooperation in Northeast Asia (ECNEA).[19] Mongolia has been a member of ECNEA since it was formed in 2005.

In August 2017, the Renewable Energy Institute issued the Asia International Grid Connection Study Group Interim Report, reporting on the economic feasibility of a regional grid. The report seemed to be asking the Japanese government for a firm commitment of its support for the regional grid.[20] In June 2018, REI issued a second interim report, considering alternative routes between Japan and Russia, Japan and South Korea, and their costs, business models, and legal frameworks.[21]

In November 2017, Cho Hwan-ik, president of KEPCO, stated that the company, after doing a feasibility study, thought that a Northeast Asian super grid was feasible, working with Japan, Russia, and China.[22] KEPCO had promoted creating a grid that included Japan. In 2016 KEPCO and Softbank had issued their plans for an Asian super grid linking South Korea, China, Japan, and Mongolia but did not mention Russia.[23]

After participating in Gobitech for several years, in March 2016 China formed an international non-profit organization Global Energy Interconnection Development and Cooperation Organization (GEIDCO), headquartered in Beijing. GEIDCO claimed to be dedicated to promoting clean and green sustainable energy development worldwide. GEIDCO's chairman was Liu Zhenya, chair of the State Grid Corporation of China. Its vice chairman was Son Masayoshi from Japan's Renewable Energy Institute, and also, former U.S. Secretary of Energy Steven Chu was a vice chairman. GEIDCO adopted the Asian Super Grid idea as its own, promoting "Global Energy Interconnection" (GEI) as the global version of the Asia Super Grid. Although GEIDO appeared to be a Chinese organization for participation in the Asian Super Grid, it was a project for the BRI. On June 28, 2018, GEIDO held the "Forum on Energy Interconnection & Belt and Road Development in Arab States" in Beijing. Liu wanted to expand BRI into a global network with the GEI initiative. China claimed to be launching a global clean energy electricity grid although most electricity produced domestically is from coal-fired plants.

With regard to the Asian Super Grid, Chinese researchers have argued that the energy channels and infrastructure proposed by the BRI can resolve the problem of Northeast Asian regional energy cooperation. Northeast Asian countries need oil and gas pipeline networks and power grids. BRI could supply investment through the Silk Road Fund and the Asian Infrastructure Investment Bank. BRI can be implemented bilaterally and does not initially require a multilateral framework but, rather, could evolve into one as Japan and South Korea join the Sino-Russian economic corridor of oil and gas pipelines and the China-Mongolia-Russia economic corridor. Chinese implied that in the absence of political trust and with Northeast Asia having an organizational deficit, BRI could solve this situation.[24]

Some analysts have argued that currently there is greater political will and vision that will enable a Northeast Asian energy regime. They state that it is possible to combine China's BRI, Mongolia's Gobitech Project, South Korea's NNP, and Russia's New Eastern Policy. All these initiatives propose cross-border energy infrastructure. However, they recognize that there is still an organizational deficit. There is no Northeast Asia multilateral mechanism for combining all these initiatives.

Chinese have written of a regional energy organization as an alternative to regional energy markets. Chinese argue that Northeast Asia has failed to form regional mechanisms that could restrict commercial competition and failed to form non-market relations fixed to energy infrastructure and institutionalized into a system where there would be no bargaining. They present Northeast Asia as being in an unnatural, "uncooperative" condition lacking political trust necessary for a more natural state of an institutionalized political framework for multilateral energy relations. Trust would allow for the formation of an Energy Community between China and its neighbors. This Energy Community could be used to promote the BRI.[25]

Many of the cross-border energy projects recently proposed by Japan and South Korea are bottom-up approaches to create a regional project on a commercial basis, involving detailed economic feasibility studies, which would eventually promote increased Northeast Asian institutionalization. The Chinese approach contrasts with the Japanese and South Korean approach in that Chinese perceive regional infrastructure projects as a means to avoid market competition, and there is less emphasis on commercial viability. There is no evidence of Chinese economic feasibility studies prior to project implementation.

On October 31-November 1, 2018, in Ulaan Baator, UNESCAP, China Electricity Council (CEC), Ministry of Energy of Mongolia, and Asian Development Bank (ADB) organized the "Northeast Asia Regional Power Interconnection and Cooperation Forum 2018." The author was able to participate. Many proposals for energy cross-border cooperation and results of feasibility studies were presented. The GEIDCO presentation suggested Northeast Asian energy cooperation should be under GEIDCO's Global Energy Interconnection (GEI) but had not mentioned that GEI was part of BRI. During Q & A, the author asked the GEIDCO representative if China was trying to incorporate the Asian Super Grid into BRI. He responded that GEIDCO was not part of BRI. The Ulaan Baator meeting sought to address the lack of an intergovernmental framework on multilateral energy cooperation that could bring all the Northeast Asian countries and stakeholders together, the Northeast Asian organizational deficit. The need to create a framework was discussed, but it is unclear if an agreement was finalized.

During 2018, China and South Korea jointly researched connecting their power grids bilaterally as the first stage of a Northeast Asian super grid that would eventually include Mongolia and Japan. In 2018, Beijing promoted incorporating the Asian Super Grid into the BRI, but it did not elicit enthusiastic regional responses.

The BRI and the NNP

Because BRI does not have a political framework of its own, Beijing searched for regional political frameworks to absorb into it and strengthened efforts to absorb ASEAN, the SCO, and BRICS into the BRI. In 2018 Beijing focused on absorbing competing regional cross-border infrastructural projects into the BRI. BRI does not have its own multilateral political framework other than organizations China has created and the BRI Forum. Consequently, Beijing has promoted coopting other regional projects and placing them under BRI in order to acquire greater political control over BRI partner countries.

China has promoted a Free Trade Area for the SCO faced resistance from Russia. In December 2017, Russian prime minister Medvedev had stated that a free trade zone was not part of the SCO vision. Central Asian states were concerned that China would dominate the organization and the region.[26] Three think tanks—the Chongyang Institute for Financial Studies at Renmin University, the Institute for Central Asian Studies at China's Lanzhou University, and the Global Governance Research Center at Renmin University—had issued a report prior to the 2018 SCO summit arguing that China could use the SCO to give itself a larger role in Central Asian affairs, provide an important platform for China to implement BRI in the region, increase trust with Moscow and New Delhi, and help maintain security in northwest China.[27] At the June 2018 SCO summit in Qingdao, Xi Jinping tried to pull the SCO into the BRI but met opposition from India. Skeptical of BRI and resistant to becoming a BRI member, India vetoed incorporation of the SCO into the BRI, depriving Xi of a consensus. The October 12, 2018 *SCO Joint Communique* listed the six countries who did affirm their support for BRI, but it could not state that the SCO would be incorporated into the BRI. The communique indicated support for cooperation on renewable energy projects and construction of energy infrastructure facilities.

Docking [对接] is an elusive term which has proven difficult to define or concretely implement. Beijing and Moscow agreed to the docking of the EEU and BRI in May 2015 after much debate between Russians and Chinese as to what that meant, but in 2018 it had not progressed and was still under discussion. In the context of energy infrastructure, docking is more concrete—it is connecting oil and natural gas pipelines and power grids across borders.

The possibility of incorporating South Korean initiatives into the BRI began in 2016 with Chinese discussion of docking Korea's Eurasia Initiative and the BRI using the China-Korea FTA as the institutional framework.[28] When Seoul shifted to the NNP, Chinese discussed docking BRI with it. In 2017, a Chinese specialist enumerated the benefits of linking BRI and NNP: it would pull South Korea into the BRI, would provide external stimuli for economic growth of China's three Northeast provinces, would push North Korea's reforms, and when it linked with Russia's EEU, would alleviate Russia's concerns regarding BRI.[29]

A Korean researcher who obtained his PhD at Fudan University, Lee Chang-ju, advocated docking NNP with BRI, with economic policy and financial coordination, and management mechanisms which accords with Xi Jinping's "Five Links"—physical connectivity, institutional connectivity, people-to-people connectivity, infrastructure connectivity and communication connectivity. Lee proposed incorporating China's Northeast provinces and the Russian Far East into the BRI-NNP docking.[30]

In the Chinese understanding of docking, it is the means by which the NNP could be incorporated into the BRI. Chinese analysts considered BRI a larger, stronger, more enduring initiative with a greater capacity for implementation than NNP. Xue Li, comparing BRI and NNP, expected that NNP would only last as long as Moon's five-year term while BRI would continue to exist long after. Xue argued South Korea's NNP should be incorporated into the Sino-Mongolian-Russian economic corridor of BRI and focus on Korean economic integration with China's Northeast provinces.[31] Because of economic sanctions Beijing had imposed on Seoul after deployment of THAAD, Xue Li claimed Beijing was not ready for a high-level docking mechanism despite Chinese writings on docking. This was demonstrated in April 2018 when Moon's representative Song Young-gil traveled to Beijing to meet with research institutes but had minimal contact with the Chinese government. Song discussed Korea's NNP and China's BRI at the institutes and gave an interview on NNP with CGTN.[32]

According to Chinese authors, the Beijing government has monopolized and controlled the BRI narrative domestically. Before the May 2017 Belt & Road Summit in Beijing, the government imposed a moratorium on BRI-related conferences. Academic writing on BRI has been controlled by Beijing to stay within governmental guidelines.[33] Thus, what Chinese have written on BRI and NNP can be understood to reflect official thinking. When Song met with Chinese specialists it was more of a Track 1½ than a Track 2 meeting. When both sides were ready for a docking mechanism, Xue proposed holding a Chinese-Russian-Korean dialogue and consultation channel at the bureau level. Xue Li suggested that if Beijing-Seoul official political relations remained tense, implementation of this docking should be at the local government level. Local level cooperation already is thriving between Korean local governments and 33 Chinese local governments.[34]

In China's Northeast, local governments have intense interest in BRI and NNP. At the beginning of the economic reforms, Beijing had paired border provinces with neighboring countries, e.g., Heilongjiang with the Russian Far East, Liaoning with Japan, and Jilin with North Korea. According to a Chinese analyst, Shandong lobbied Beijing to be paired with South Korea even before formal normalization of China-ROK relations.[35] However, border areas seek the most profitable cross-border relations. Yanbian businessmen cannot depend on trade only with an unstable North Korea. They have stronger commercial and social ties with South Korea. Yanbian people watch South Korean television and are influenced by South Korean culture.[36] In the early 20th century, Liaoning's Dandong was a transportation hub on the railway between the Korean Peninsula and Manchukuo and a trading port on the Yalu River. Recently, sanctions on North Korea had hurt Dandong's economy. Dandong could anticipate increased border trade and economic growth if it is incorporated into South Korea's regional project NNP and North Korea opens up. Dandong real estate prices are increasing on that expectation.[37]

Heilongjiang has for more than two decades anticipated an economic revival through economic integration with the Russian Far East, and had assumed the province had an exclusive claim. Heilongjiang had expected that the *Program of Cooperation between the Northeast of the People's Republic of China and the Far East and Eastern Siberia of the Russian Federation (2009-2018)* would achieve this. BRI had encouraged this hope with the "China-Russia-Mongolia economic corridor" stretching from the Russian Far East to Mongolia with Heilongjiang at its center. However, the more strident Heilongjiang became

on integration, the more reluctant the Russian Far East became. The 2009-2018 plan's ambitious goals were only partially implemented with Chinese businessmen losing millions of dollars. Nevertheless, Beijing and Moscow designated 2018 and 2019 as the "Bilateral Years of Russian-Chinese Interregional Cooperation."

At the September 2018 Eastern Economic Forum, China and Russia signed a new, less ambitious *Program for development of Russian-Chinese cooperation in trade, economic and investment spheres in the Far East of the Russian Federation (2018-2024)*. This new plan did not imply economic integration between China's Northeast and Russia's Far East.[38] The 2018-2024 plan mentioned Heilongjiang only four times, primarily in the context of developing international transport corridors "Primorye-1" (Harbin-Mudanjiang-Suifenhe-Pogranichny-Ussuriysk-Vladivostok/Nakhodka)and"Primorye-2"(Changchun-Jilin-Hunchun-Zarubino port).

China's Ministry of Commerce compiled the 2018-2024 plan with the Ministry for the Development of the Russian Far East (*Minvostokrazvitiya*). The Ministry of Commerce is the Chinese secretariat of the "Intergovernmental Commission for Cooperation of the Northeast China and the Far East and Baikal Region of Russia," and will be closely monitoring the Chinese side and working with the Russian side to implement the new Plan.[39] The commission established a business council, which includes Russian and Chinese entrepreneurs, who are charged with promoting joint investment projects.

In the aftermath of signing the 2018-2024 plan, Harbin economists indicated discontent with Beijing's policies. They claimed Heilongjiang should be able to establish a new cross-border trade zone with the Russian Far East due to its advantageous position on the Russian border. This would give Heilongjiang a more prominent position in China-Russia trade. The state council had issued relevant policies in 2013, but implementation had not taken place. In fact, they argued, the Chinese state had not given strong policy support to Heilongjiang province. Liaoning has several free trade zones, but Heilongjiang has only two bonded zones in Suifenhe and Harbin.[40]

South Korea's NNP would undermine Heilongjiang's exclusive access to the Russian Far East with a competing project, while it would tend to favor Yanbian and Dandong. The New Northern Policy and the BRI are competing for the Russian Far East. Beijing and Seoul tentatively approach the idea of "docking" the two projects as a rational solution. Heilongjiang could be expected to be less supportive. Other researchers recognized the existence of competition between China's BRI and South Korea's NNP, especially in the Arctic, but also felt it possible for there to be Sino-Korean cooperation.[41]

Some South Korean analysts questioned benefits of BRI and critiqued its compatibility with Seoul's strategies. Moon expected BRI would lessen Korean dependence on China, but critics thought dependency would increase because Beijing would use South Korea to develop China's Northeast provinces as a hub of Northeast Asia. Moon expected BRI to connect his NNP and New Southern Policy with Southeast Asia, expanding South Korea's influence there.[42]

By November 2018, Beijing was ready for BRI docking with NNP. At a meeting during APEC, Xi Jinping proposed to Moon that South Korea participate in BRI, intending to incorporate South Korea and its NNP into it. At that time Moon had not decided whether to join. Some

Koreans suspected Xi's proposal was meant to force South Korea to choose between China and the U.S. during the U.S.-China trade war. China is South Korea's largest trade partner but memories of China's economic retaliation for South Korea's installation of THAAD were still strong.[43]

The Korean Presidential Committee on Northern Economic Cooperation took the position that BRI's five links and NNP's nine bridges could be docked.[44] It appears that South Korea understood the term docking to mean cross-border cooperation and connection of infrastructure without incorporation into the Chinese political framework of BRI. During his December 2017 trip to China, Moon had announced that he and Xi would examine ways to cooperate between BRI and NNP. Moon hoped BRI would help connect South and North Korea, promoting more peaceful relations. He also expected that BRI would facilitate South Korea's access to natural gas pipelines through China and Russia, a cheaper alternative to LNG. Moon indicated his intention for South Korea to develop relations with a variety of local governments. U.S. sanctions on North Korea remained an impediment for South Korean companies to invest in North Korea.

The website of the Presidential Committee on Northern Economic Cooperation now includes in its Eastern Region strategy "Pushing ahead with projects in connection with 'One Belt, One Road' and multilateral cooperation projects involving the Three Northeastern Provinces of China." This includes connecting with the BRI's China-Mongolia-Russia Economic Corridor using AIIB and the Greater Tumen Initiative, and "Laying the foundation to connect ROK, North Korea, and Russia in the sectors of gas, railway, and electricity."[45]

Conclusion

Visions of local Sino-Russian-South Korean-North Korean border economic and energy integration, pipelines, and power grids have existed for three decades. In practice, energy infrastructure actually constructed has been bilateral. A multilateral, region-wide energy pipeline would have to identify a center or hub which has eluded Northeast Asia. The puzzle of Northeast Asian energy infrastructure is how to link the three regional energy projects –BRI, Asian Super Grid, and the NNP—without BRI coopting and absorbing the other two projects. BRI's proposed infrastructure projects promise infrastructure connectivity in Northeast Asia. The other infrastructure initiatives are more multilateral, not exporting energy only to China. Beijing's response to these multilateral initiatives has been to try to run all multilaterals through China to keep China at the center of regional infrastructure and to place China's Northeast provinces at the center of Northeast Asia.

Since the end of the Cold War, Northeast Asian regional energy cooperation has been seen as a basis for building a larger regional mechanism that could serve as a peace regime on the Korean Peninsula. Almost every Northeast Asian energy regime proposal has included a proposal to include North Korea to meet its energy needs and to lessen the need for a nuclear energy program. In autumn 2018, Russian officials made a secret proposal to North Korea, offering to build a nuclear power plant in exchange for Pyongyang dismantling its nuclear weapons and ballistic missiles. It is unclear if the offer was accepted.[46] This was a revival of the U.S. proposal to provide two light-water reactors to North Korea under the 1994 Agreed Framework.

China has promoted the BRI as a mechanism which could incorporate the Asian Super Grid and give China a leadership position in Northeast Asian energy. It is not clear whether other Northeast Asian countries would support that effort. Japan and South Korea stress market-based relations, the need for a legal regime and protection of intellectual property. China views a regional political framework as based on non-market energy relations, a way to avoid the world oil market. Chinese stress the need for political trust rather than a legal regime. They propose that the Sino-Russian oil pipeline be the core of a Northeast Asian energy regime and that Japan and South Korea could join, but there have been disputes in the past over oil prices in the Sino-Russian pipeline preventing it from being a peaceful core. Despite discussions of pipelines, Japan and South Korea prefer LNG from Russia rather than entanglements in pipelines. Japan is the largest buyer of Russian LNG.

South Korea's NNP is dependent on removal of DPRK sanctions for its implementation, which has not yet happened. The Asian Super Grid is a multilateral energy project promoted by Russia, South Korea, Japan, Mongolia, and China. Currently, serious consultations are supported by UNESCAP and ADB. The Asian Super Grid will make progress if Northeast Asian countries can agree on the framework of a multilateral mechanism.

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