

1

Energy Outlook in the Asia-Pacific

Shoichi Itoh

The gravity of the global energy demand has increasingly shifted towards the Asia-Pacific. The International Energy Agency (IEA) forecasts that primary energy demand in the Asia-Pacific will increase by 1.4 times in 2017–40.¹ Compared to the total energy consumption of the EU, that of the Asia-Pacific was 3.6 times more in 2017 and is estimated to be 5.2 times more in 2030. Following China as the world’s largest energy consumer, India and South-East Asia will also increase energy demand dramatically to 2040. In particular, the role of natural gas has come under the spotlight to meet the growing energy demand as well as environmental needs to reduce greenhouse emissions in the world today. The Asia-Pacific is increasingly no exception to this global trend.

The Asia-Pacific also has gigantic exporters of natural gas, including liquefied natural gas (LNG)—namely Australia, Russia and the US. As a result of the US shale gas revolution, the role of LNG as a means of inter-regional long-distance transportation of natural gas is increasing. The US is projected to become the world’s largest LNG exporter by the mid-2020s, by which time China is forecast to top the list of LNG importers by overtaking Japan. Russia, the biggest piped gas exporter in the world, is also striving to become a major LNG exporter in the 2020s.

¹ International Energy Agency, *World Energy Outlook 2018* (Paris: OECD Publishing, 2018), 40 (hereafter *WEO 2018*).

Energy is securitised from different standpoints by policymakers, businessmen and mass media. The energy landscape is not necessarily transformed simply by the balance of energy supply and demand. Some focus on the security of energy markets. Security of supply is crucial for energy consumers, whereas security of demand is a major concern for energy producers. Others highlight the linkage between energy and security, which goes beyond a mere question of commercial deals. Energy is sometimes used as a means of political leverage to exert impacts on interstate relations.

The first part of this chapter provides an overview of the energy outlook in the Asia-Pacific with a special emphasis on natural gas. In the second part, Russia's growing presence in the Asia-Pacific's LNG market with dynamically changing trade flows is examined from both economic and geopolitical standpoints. We examine China's surging gas demand, the US shale gas revolution and Japan's positioning against its diminishing gas demand as market conditions that await Russia's LNG supplies. Then, the escalation of US–China relations, Tokyo's non-economic approach to Russian energy and the US–Japan joint initiative to create new demand for US LNG exports are discussed.

Asia-Pacific Energy Outlook

Primary Energy Demand

According to the Institute of Energy Economics, Japan's (IEEJ) *Outlook 2019*, the global primary energy demand is projected to increase by 1.4 times from 2016 to 2050, of which China, India and the ASEAN (Association of South-East Asian Nations) countries combined will account for 63 per cent of the increment. Asia's primary energy demand is projected to increase by 1.6 times against the background of robust economic growth in 2016–50.²

2 Institute of Energy Economics, Japan, *IEEJ Outlook 2019* (Tokyo: IEEJ, October 2018), 45 (hereafter *IEEJ 2019*). The reference scenario is drawn from *IEEJ 2019* in this chapter. The IEEJ defines a reference scenario as a scenario that reflects past trends with current energy and environment policies without taking any aggressive policies for low-carbon measures into account. Asia, defined in the *IEEJ 2019*, includes China (including Hong Kong), India, Japan, South Korea, Taiwan, the ASEAN countries (including Brunei, Indonesia, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam), Bangladesh, North Korea, Mongolia, Nepal, Pakistan, Sri Lanka and other countries included in the category 'other Asia' in IEA statistics.

The IEA's *World Energy Outlook 2018 (WEO 2018)* forecasts that total primary energy demand in the Asia-Pacific will increase from 5,789 mtoe to 8,201 mtoe from 2017 to 2040. During the same period, it is estimated that China's demand will increase at an average annual rate of 1 per cent, whereas that of India and South-East Asia will expand by 3.3 per cent and 2.3 per cent, respectively.³ As late as 2040, the Asia-Pacific is projected to account for 46 per cent of the global primary energy demand. It is forecast that China's share in this region will decrease from 53 per cent to 47 per cent in 2017–40, whereas that of India and South-East Asia will increase from 16 per cent to 23 per cent, and from 11 per cent to 14 per cent, respectively.⁴ In the same time frame, Japan's primary energy demand is forecast to decrease at an average annual rate of 0.5 per cent, while its share in the Asia-Pacific will reduce from 7 per cent to 5 per cent.

Energy consumption in India and the ASEAN combined is projected to reach almost the same level of China and to account for 20 per cent of the global primary energy demand in 2050.⁵ India and the ASEAN countries will gradually increase dependency on hydrocarbon fuels in the course of rapid economic growth.⁶ It is forecast that China's energy consumption will peak in the mid-2040s with its ageing and decreasing population, but that energy demand in India and the ASEAN countries will continue to increase against the backdrop of their relatively younger demographic composition and high economic growth rates. It is estimated that India and the ASEAN will account for 43 per cent and 25 per cent, respectively, of the incremental growth of primary energy demand in Asia in 2016–50, with Indonesia the fastest-growing energy consumer, followed by Vietnam, in the region.⁷ In 2016–50 the energy self-sufficiency ratio is projected to decrease from 72 per cent to 63 per cent in Asia, and from 117 per cent to 66 per cent in the ASEAN as a whole.⁸

3 IEA, *WEO 2018*, 40.

4 IEA, *WEO 2018*, 40. The new policies scenario (NPS) is drawn from *WEO 2018*. The IEA defines an NPS as a scenario that 'aims to provide a sense of where today's policy ambitions seem likely to take the energy sector. It incorporates not just the policies and measures that governments around the world have already put in place, but also the likely effects of announced policies, including the Nationally Determined Contributions made for the Paris Agreement'.

5 IEEJ, *IEEJ 2019*, 36.

6 IEEJ, *IEEJ 2019*, 37.

7 IEEJ, *IEEJ 2019*, 45. Indonesia and Vietnam are projected to account for 43 per cent and 25 per cent, respectively, of the increment of the ASEAN's energy consumption during the same period.

8 IEEJ, *IEEJ 2019*, 49.

Natural Gas

According to IEA's *Gas 2019*, natural gas consumption is forecast to increase at an average annual rate of 1.6 per cent to 2024.⁹ Natural gas consumption in the Asia-Pacific is projected to increase by an average annual rate of 4 per cent in 2018–24, contributing to 57 per cent of the global growth of gas demand.¹⁰ China's natural gas demand grew by 14.5 per cent in 2017 and by 18.1 per cent in 2018, but the IEA predicts it will slow to an average annual rate of 8 per cent to 2024.¹¹ China, however, is expected to account for 42 per cent and 74 per cent of natural gas consumption in the world and the Asia-Pacific, respectively.¹²

The global natural gas demand in 2016–50 is forecast to increase by 1.7 times from 3,505 bcm to 5,986 bcm, of which non-OECD (Organisation for Economic Cooperation and Development) countries will account for 87 per cent of the increment. During the same period, it is estimated that natural gas will have the highest growth rate among all the fuels and account for approximately 40 per cent of the increase in the global primary energy demand: the share of natural gas in the global energy demand will increase from 22 per cent to 27 per cent.¹³ Natural gas consumption is forecast to grow by 2.7 times in Asia from 2016 to 2050: its share in the world will increase from 19 per cent to 29 per cent.¹⁴ Natural gas consumption will increase at an average annual rate of 1.6 per cent and overtake coal as the second energy fuel after oil in the latter half of the 2030s in the global market; however, coal will still remain the biggest component of Asia's energy mix as late as 2050.¹⁵

China's demand for natural gas is projected to expand by 2.8 times in 2016–40, when China alone will account for approximately 20 per cent of the global gas consumption.¹⁶ During the same period, gas demand in

9 IEA, *Gas 2019*, 9 (Paris: OECD Publishing, 2019), www.iea.org/reports/gas-2019 (hereafter *Gas 2019*).

10 IEA, *Gas 2019*, 14.

11 IEA, *Gas 2019*, 9.

12 IEA, *Gas 2019*, 19.

13 IEEJ, *IEEJ 2019*, 41.

14 IEEJ, *IEEJ 2019*, 47.

15 IEEJ, *IEEJ 2019*, 172–73. According to *WEO 2018*, the shares of coal and natural gas in primary energy demand will change from 27 per cent to 22 per cent, and 22 per cent to 25 per cent, respectively, from 2017 to 2040 in the world. In contrast, the share of coal will remain the predominant part of the energy mix at 38 per cent in 2040, even if it decreases from 48 per cent in 2017, and that of natural gas will increase from 11 per cent to 15 per cent.

16 IEEJ, *IEEJ 2019*, 172.

ASEAN countries is forecast to increase by 2.1 times. Indonesia, which has hitherto been one of the main gas exporters in the region, is projected to become a net importer of natural gas in the mid-2030s and to increase its natural gas consumption by 2.8 times in 2040, compared to 2016.¹⁷ Malaysia, Thailand and Vietnam are forecast to increase demand for natural gas by 1.6 times, 1.5 times and 3.6 times, respectively, in the same time frame.¹⁸ The natural gas demands of Japan, one of the biggest LNG importers, is projected to decrease due to the restart of its nuclear reactors, the improvement of energy efficiency and the utilisation of non-fossil fuel energy sources, etc.¹⁹

It is projected that Asia's power generation will almost double in 2040, compared to 2016: that of China, India and ASEAN countries will increase by 1.7 times, 3.1 times and 2.7 times, respectively.²⁰ By 2040, natural gas consumption for power generation is forecast to increase by 1.4 times in China, by 6.5 times in India and by 2.1 times in ASEAN countries. The ratio of coal in power generation is projected to decrease from 69 per cent to 52 per cent in China, and from 75 per cent to 63 per cent in India, but is to increase from 37 per cent to 46 per cent in ASEAN countries from 2016 to 2040.

Coal

Coal consumption is forecast to increase by 14 per cent from 2016 to 2050, whereas its share in the global primary energy demand will reduce from 27 per cent to 22 per cent.²¹ During the same period, it is estimated that OECD countries will decrease coal consumption by 42 per cent; however, its demand will increase by 34 per cent in non-OECD countries, of which Asia will consume 91 per cent of the increment, especially India and ASEAN countries.²²

Notwithstanding the overall reduction of coal's share in Asia's power mix, coal will still have the largest share in the region through 2050.²³

17 IEA, *South-East Asia Energy Outlook 2017* (Paris: OECD Publishing, 2017), 83.

18 IEEJ, *IEEJ 2019*, 180–85.

19 IEEJ, *IEEJ 2019*, 47.

20 IEEJ, *IEEJ 2019*, 174–75, 179. Global power generation is forecast to increase at an average annual rate of 1.9 per cent from 2016 to 2050, while non-OECD countries will account for approximately 90 per cent of the incremental growth.

21 IEEJ, *IEEJ 2019*, 42–43.

22 IEEJ, *IEEJ 2019*, 43.

23 IEEJ, *IEEJ 2019*, 73.

Oil

The share of non-OECD countries in the global oil consumption will increase from 48 per cent in 2016 to 64 per cent in 2050, when approximately 40 per cent of the demand will be concentrated in Asia, which will have about two-thirds of the global increase in oil consumption during the same period.²⁴ It is projected that about 80 per cent of the international oil trade will be destined for Asia as late as 2050.²⁵

China is forecast to top the list of oil consumers by overtaking the US by around 2030: its oil demand will peak in the mid-2040s, due largely to a decrease in demand for fuel for automobiles because of improvements in energy efficiency and depopulation.²⁶

Oil consumption in India and ASEAN countries is projected to increase by 2.9 times and 2.1 times, respectively, in 2016–50.²⁷ India will replace the US as the second-biggest oil consumer in the latter half of the 2040s.²⁸

In 2016–50, the self-sufficiency ratio of oil will decrease from 37 per cent to 23 per cent in China, from 19 per cent to 4 per cent in India and from 55 per cent to 21 per cent in ASEAN countries.²⁹

Non-Hydrocarbon Energy Sources

It is estimated that demand for non-fossil energy will almost double in Asia, accounting for 19 per cent in 2050, a 3 per cent increase from 2016. Renewables, excluding biomass and nuclear power, will account for 57 per cent and 34 per cent, respectively, of the incremental non-fossil energy consumption.³⁰

24 IEEJ, *IEEJ 2019*, 47.

25 IEEJ, *IEEJ 2019*, 47.

26 IEEJ, *IEEJ 2019*, 3, 39.

27 IEEJ, *IEEJ 2019*, 39.

28 IEEJ, *IEEJ 2019*, 3.

29 IEEJ, *IEEJ 2019*, 39.

30 IEEJ, *IEEJ 2019*, 48.

Natural Gas Supply Outlook

According to estimates of *WEO 2018*, the global natural gas production will increase at an average annual rate of 1.6 per cent from 3,769 bcm in 2017 to 5,399 bcm in 2040.³¹ It is forecast that five countries will have more than 80 per cent of the production growth in 2017–25 with the US accounting for 40 per cent of the increment. Thereafter, the supply sources will increase and the top 10 producers will account for about two-thirds of the increases in natural gas production to 2040.³²

Russia is projected to remain the second-largest gas producer through 2040 with increasing gas supplies mainly from the Arctic region, Eastern Siberia and the Far East. China is expected to become the newly expanding gigantic market for Russia's gas exports, especially after the commissioning of the 4,000 km pipeline (Power of Siberia-1) between the two countries, planned for completion by the end of 2019. In 2017–40, Russia is forecast to account for 12 per cent of the gas production growth in the world, to be followed by Australia, sharing 10 per cent of the increment.³³

Natural gas production in the Asia-Pacific is projected to increase at an average annual rate of 2.5 per cent (approximately 100 bcm per annum) in 2018–24, of which Australia and China will account for about 55 per cent of the regional incremental production.³⁴ Australia is expected to increase natural gas production at an average annual rate of 2.3 per cent from 132 bcm in 2018 to 152 bcm in 2024.³⁵ As a result of intensive investments and the gradual increase in unconventional gas production, China is forecast to increase its natural gas production at an average annual growth rate of 7.1 per cent from 160 bcm in 2018 to 242 bcm in 2024. However, the gap between domestic production and consumption will keep widening.³⁶ Natural gas production in emerging Asian economies, including Indonesia, Malaysia, India, Pakistan, Bangladesh, etc., is projected to plateau at 330 bcm per annum in 2018–24, while the gap between the regional soaring demand and supply continues to widen.³⁷

31 IEA, *WEO 2018*, 179.

32 IEA, *WEO 2018*, 180.

33 IEA, *WEO 2018*, 180.

34 IEA, *Gas 2019*, 79.

35 IEA, *Gas 2019*, 86, 175.

36 IEA, *Gas 2019*, 81, 175.

37 IEA, *Gas 2019*, 86.

Natural Gas Trade

According to IEA's *Gas 2019*, the total volume of global natural gas trade is forecast to increase at an average annual rate of almost 4 per cent to 2024, reaching 32 per cent of the world's gas consumption. Global LNG trade is projected to increase to 546 bcm or about 60 per cent of inter-regional gas trade by 2024.³⁸ In this time frame, Australia, Russia and the US are expected, altogether, to supply about 90 per cent of the global LNG export growth, of which the US alone will account for two-thirds of total growth.³⁹ The US is expected to increase its exports at 113 bcm and to top the list of LNG exporters at 113 bcm by surpassing Qatar and Australia by 2024.⁴⁰

China is projected to account for one-third of the total growth in the global LNG trade in 2018–24 and to overtake Japan as the largest LNG importer at 109 bcm (or about 80 mt) by 2024.⁴¹ China is also expected to become the largest pipeline importer during this period. It is estimated that the total volume of piped gas from Russia and Central Asia will amount to 100 bcm per annum, accounting for 48 per cent of China's total natural gas imports by 2024.⁴²

With the Power of Siberia-1 pipeline, Russia is expected to become the largest contributor of incremental gas supplies to China by the middle of the 2020s.⁴³ Russia is also forecast to increase LNG exports by approximately 50 per cent to 38 bcm (or about 28 mt) per annum by 2024.⁴⁴

38 IEA, *Gas 2019*, 115.

39 IEA, *Gas 2019*, 135.

40 IEA, *Gas 2019*, 113.

41 IEA, *Gas 2019*, 113.

42 IEA, *Gas 2019*, 113.

43 IEA, *Gas 2019*, 120.

44 IEA, *Gas 2019*, 136.

Political Economy of LNG and the Russian Factor

Russia's LNG Ambition

Amid the intensifying competition among natural gas producers, Russia has been stepping up its efforts to become one of the major LNG suppliers in the world.⁴⁵ The Yamal LNG project, the second LNG export facility after the Sakhalin-2 project, rapidly expanded LNG export capacity following the first shipment from its first train with the maximum capacity of 5.5 mt/y in December 2017. Its second and third trains, each having the same nameplate liquefaction capacity as the first, were commissioned in 2018, ahead of the original schedules. With the completion of the Yamal Project's fourth train, which has a smaller capacity, Russia's total liquefaction capacity, including the Sakhalin-2 Project, reached 26 bcm by the end of 2019.⁴⁶

In June 2018, Russian Deputy Energy Minister Pavel Sorokin said that Russia might increase its LNG production up to 100 or 120 mt/y by 2035.⁴⁷ As late as April 2019, President Putin also emphasised Russia's plan to increase its LNG capacity to 100 mt by 2035.⁴⁸ To this end, Russia aims to expand the number of LNG export facilities in the High North. However, this entails an enormous amount of capital and associated investment risks.

China is a key stakeholder of Novatek's Yamal LNG project.⁴⁹ China National Petroleum Corporation (CNPC) and Novatek inked an agreement in October 2013 for the supply of 3 mt/y for 20 years, and its first LNG cargo arrived in China in March 2018.

45 Russia started to export LNG from the Sakhalin-2 Project in 2009.

46 IEA, *FIDs for new LNG liquefaction capacity, 2014–2019*, 10 June 2020, www.iea.org/data-and-statistics/charts/fids-for-new-lng-liquefaction-capacity-2014-2019.

47 Oksana Kobzeva and Olesya Astakhova, 'Russia to Boost Presence on Global LNG Market, Helped by Lower Costs', *Reuters*, 1 June 2018, www.reuters.com/article/us-russia-lng/russia-to-boost-presence-on-global-lng-market-helped-by-lower-costs-idUSKCN1IX4FI. According to IEA's *World Energy Outlook 2017*, it was estimated that the United States would increase its liquefaction capacity to 104 mt (140 bcm) in 2025 and over 126 mt (170 bcm) in 2040.

48 Atle Staalesen, 'Putin's Biggest Oil Company Promises 100 Million Tons on Arctic Route', *Barents Observer*, 3 April 2019, thebarentsobserver.com/en/industry-and-energy/2019/04/putins-biggest-oil-company-promises-100-million-tons-arctic-route.

49 CNPC and China's Silk Road Fund have 20 per cent and 9.9 per cent stakes, respectively, in this project.

In addition to the sheer size of China's growing natural gas market, which could easily absorb Russia's LNG exports, Moscow has been desperately seeking Chinese financial commitments against the backdrop of escalating Western economic sanctions following Russia's illegal annexation of Crimea in March 2014.

As late as April 2019, Novatek signed binding agreements with CNPC and the China National Offshore Oil Corporation to have 10 per cent stakes in the Arctic LNG 2 project with a nameplate capacity of 19.8 mt/y.⁵⁰

Market Dynamics

China's Gas Demand

As noted above, China's share in the global as well as the Asia-Pacific's gas consumption is rapidly expanding. In July 2018, China's National Development and Reform Commission announced a plan to increase the share of natural gas in primary energy consumption up to around 15 per cent in 2030.⁵¹ As of 2017, this target is still behind the world's average; however, given the sheer size of total energy consumption, its absolute volume is enormous.⁵² Further, given the urgency to improve air quality, the Chinese Government is aggressively revisiting the role of natural gas to reduce coal consumption, thereby alleviating mounting frustration among the population. Compared to 2018, China is expected to consume 58 per cent more natural gas by 2024.⁵³

China's total gas imports increased by 7.4 times from 16.4 bcm in 2010 to 121.4 bcm in 2018.⁵⁴ According to the IEA's forecast, the total volume of China's gas imports will overtake that of the EU by 2040. Turkmenistan accounted for 27 per cent of China's portfolio of gas imports in 2018 and is projected to remain the largest gas exporter to China to 2024.⁵⁵ With the gradual increase in gas supplies by the Power of

50 Its first train is planned for commissioning in 2023.

51 As late as 2018, natural gas accounted for only 8 per cent of China's primary energy mix.

52 IEA, *Gas 2019*, 20.

53 IEA, *Gas 2019*, 21.

54 BP, *BP Statistical Review of World Energy 2019* (London: British Petroleum, 2019), www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2019-full-report.pdf.

55 IEA, *Gas 2019*, 120.

Siberia-1, Russia is projected to overtake Turkmenistan soon afterwards. However, China has so far developed reasonably diversified natural gas supply routes—pipelines and LNG—in advance of the start of piped gas supplies from Russia.

US Shale Gas Revolution

During the shale gas revolution, future prospects of natural gas production in the US and its LNG exports have undergone upward revisions. According to estimates by the US Energy Information Administration (EIA) as late as 2019, the projected volumes of natural gas production, including shale gas, in 2030 and 2040 increased by 1.3 times and 1.2 times, respectively, compared to the data published in 2013. Correspondingly, forecast LNG exports increased by 3.1 times and 3.2 times, respectively, in the same time span.⁵⁶ As noted above, the US is projected to become the world's largest LNG exporter by the mid-2020s.

The US shale gas revolution has triggered seismic effects in the global natural gas market in four ways. First, it has prompted a rising share of LNG in international long-distance gas flows. The International Association for Natural Gas (CEDIGAZ) estimates that long-distance trade by pipeline and LNG will increase at average annual rates of 1 per cent and 4.9 per cent in 2017–40. LNG accounted for 37 per cent of the total inter-regional gas flows in 2017, whereas its share is projected to increase to 58 per cent in 2040.⁵⁷ Second, gas pricing mechanisms, still largely indexed to oil especially in Asia, are gradually diversified with the increasing number of gas-indexed contracts.⁵⁸ Third, relaxation or abolishment of destination clauses, which restrict buyers from reselling or swapping LNG cargos, is increasing in number. Fourth, the hitherto globally compartmentalised regional gas markets in North America, Europe and Asia are being converged. This would likely foster further correlation of gas prices across regions.

56 EIA, *Annual Energy Outlook 2013* (Washington, DC: EIA, 2013), www.eia.gov/outlooks/archive/aeo13/; EIA, *Annual Energy Outlook 2019* (Washington, DC: EIA, 2019), www.eia.gov/outlooks/archive/aeo19/.

57 CEDIGAZ *World LNG Outlook 2019* (Rueil Malmaison: CEDIGAZ, August 2019), 12.

58 Japan has traditionally purchased LNG indexed to crude oil prices, known as JCC (Japan Crude Cocktail). The IEA predicts that most natural gas consumption will still be indexed to oil or regulated prices outside North America and Europe in the foreseeable future. Only 34 per cent of LNG is priced by gas-to-gas competition in the world today. IEA, *Gas 2019*, 152.

Japan's New Positioning

Japan imported 8–10 per cent of its total LNG imports from Russia in 2010–18. After the Fukushima Daiichi Plant's nuclear accident in March 2011, Japan suffered from the sudden jump of LNG imports due to the full-scale operation of gas-fired thermal plants to make up for the nuclear shutdowns. This entailed tremendous financial costs for Japan since LNG prices soared against the backdrop of the subsequent tightening of the global LNG market with relatively high oil prices. Japan in 2011 recorded an annual trade deficit for the first time since 1981, and the deficit hit historical highs for the next three years. The total costs of Japan's LNG imports mounted by approximately 2.3 times that of 2010.⁵⁹

However, concern over procuring enough LNG at internationally competitive prices has now significantly reduced. Indeed, Japan's gas demand has already peaked and begun to decrease since 2015. According to *WEO 2018*, Japan's natural gas demand is forecast to decrease by 0.7 per cent per annum from 2017 to 2040.⁶⁰ Unlike the case for crude oil, which is heavily dependent on imports from the Middle East, Japan's portfolio of LNG imports is fairly diversified.⁶¹

Japanese buyers, including gas companies, electrical utilities and trading houses, already signed a grand total of approximately 15 mt/y of LNG to be supplied from the US by the early 2020s. This volume is equivalent to about 18 per cent of Japan's LNG imports as late as 2018, whereas not all of those LNG cargos will be delivered to the Japanese market, since Japanese buyers are becoming portfolio players in the global LNG market.⁶²

59 Shoichi Itoh, 'Japan's Energy Security in the Age of Low Oil Prices', National Bureau of Asian Research, Pacific Energy Summit, Policy Brief, 26 May 2016, www.nbr.org/publication/japans-energy-security-in-the-age-of-low-oil-prices/.

60 IEA, *WEO 2018*, 586.

61 Australia, Malaysia and Qatar accounted for 34 per cent, 14 per cent, 12 per cent, respectively, of Japan's LNG imports in 2018. Ministry of Finance (Japan), Trade Statistics of Japan. See, *2020 EDMC Handbook of Japan's & World Energy & Economic Statistics 2019 Edition* (Tokyo: IEEJ, 2019).

62 The total LNG volume includes both purchasing and sales agreements and tolling agreements.

Political Factors

US–China Conflict

China is set to become the world's largest LNG importer in 2024 when the US is forecast to top the list of LNG exporters globally.⁶³ However, Beijing has found fresh incentive to further consolidate a strategic energy partnership with Russia by the escalation of relations with the US under the Trump administration. The ongoing Sino-US trade war has inflated uncertainties with regard to the future of bilateral LNG trade. In 2018, when China's LNG imports expanded by 38 per cent to 54 mt, US LNG exports to China dropped by 10.5 per cent. China imposed 10 per cent tariffs on LNG imports from the US in retaliation for its imposition of tariffs on Chinese goods in September 2018. China raised the tariffs of US LNG to 25 per cent in retaliation for increased US tariffs in June 2019. There was no US LNG export cargo delivered to China in the second quarter of 2019.⁶⁴

Rising concerns have emerged that the current Sino-US standoff entails Chinese state-backed buyers losing confidence in US LNG projects as long-term stable supply sources, and that US sellers may lose big market opportunities that were previously factored in for the planned expansion of LNG exports. China would be encouraged to tilt towards non-US LNG exporters, including Russia. The aggravation of Sino-US relations could also augment the significance of securing increased access to natural gas supplies by land from Russia, provided against a conceivable US naval blockade on oil tankers to China in military contingencies.

Japan's Politicisation of Energy Vis-à-Vis Russia

Prime Minister Shinzo Abe has identified radical improvement of Japan–Russia relations as one of Japan's diplomatic priorities. Tokyo has singled out energy as a priority area for bilateral cooperation, since this

63 IEA, *Gas 2019*, 113.

64 'Europe and South America Jump in as China sees no US LNG in Q2', *Hellenic Shipping News*, 4 July 2019, www.hellenicshippingnews.com/europe-and-south-america-jump-in-as-china-sees-no-us-lng-in-q2/.

strategic sector would likely capture Moscow's attention more than any other sector.⁶⁵ The Abe administration initially anticipated Moscow's concession on the Northern Territories issue in return for a massive economic cooperation package. Tokyo also sought to make reinforcement of Japan–Russia relations a hedge against the rise of China and a means to circumvent further consolidation of the Sino-Russian partnership. Yet, these naively optimistic targets have been dashed to date.

Notwithstanding that Russia increased its presence in Japan's portfolio of oil and LNG imports in the past decade, an economically feasible mega energy project could no longer be easily identified. As a matter of fact, the Japanese Government's extra effort to politically encourage its domestic private companies to develop more business opportunities in Russia's energy sector has resulted in only limited success. Although the Abe administration has virtually minimised Japan's commitment to move in step with the US and the EU to impose economic sanctions against Russia, the Japanese private sector has increased concerns about the possibility of getting involved in the consequences of Russia's escalating relations with the West. Apart from the question of political risks, Japanese buyers can easily procure LNG at internationally competitive prices elsewhere.

Nonetheless, Japan has increased its commitment to economically dubious LNG projects in the Arctic. Following a memorandum of understanding between Novatek and JOGMEC (Japan Oil, Gas and Metals National Corporation) to develop additional LNG projects and new marketing opportunities for Russia in September 2018,⁶⁶ JOGMEC signed a share purchase agreement with Novatek and Mitsui & Co. in relation to the sale of a 10 per cent participation interest in the Arctic LNG 2 project in June 2019.⁶⁷

65 For the details, see Shoichi Itoh, 'Japan's Opaque Energy Policy toward Russia: Is Abe Being Trumped by Putin?', in *The Emerging Russia-Asia Energy Nexus*, ed. Erica Downs, James Henderson, Mikal E. Herberg, Shoichi Itoh, Meghan L. O'Sullivan, Morena Skalamera and Can Soylu, *NBR Special Report 74* (December 2018): 33–42; Shoichi Itoh, 'Japan's Russia Policy at a Crossroads: New Phase for Geopolitics of Energy', in *Change and Continuity in Japan-Russia Relations: Implications for the United States*, ed. Paul J. Saunders and John S. Van Oudenaren, 17–26 (Washington, DC: Center for the National Interest, 2019).

66 'JOGMEC and NOVATEK Signed a Memorandum of Understanding', JOGMEC, last modified 12 September 2018, www.jogmec.go.jp/english/news/release/news_03_000002.html.

67 'JOGMEC Provides Equity Financing and Loan Guarantee for Mitsui's Participation in the Arctic LNG 2 Project and Signed Share Purchase Agreement', JOGMEC, last modified 29 June 2019, www.jogmec.go.jp/english/news/release/news_03_000009.html.

The US–Japan Agreement

Tokyo and Washington agree on the importance of creating new LNG demand, especially in the Asia-Pacific, to absorb the growing scale of LNG exports from the US. Despite the decrease of Japan's LNG demand and its reasonably diversified import portfolio, Tokyo has good reasons to maximise LNG supplies from the US, Japan's ally, from both geopolitical and economic standpoints. The increase of LNG transportation across the Pacific Ocean would relax Japan's dependence on the other seaborne routes cutting across the Strait of Hormuz and the South China Sea, where seeds for geopolitical conflicts are simmering almost endlessly. Besides, the expansion of LNG exports from politically reliable partners, including the US, would further increase the liquidity of LNG trade flows in which Japanese stakeholders are becoming portfolio players in the world.

The Japan–US Strategic Partnership was established in November 2017 with the aim of developing new LNG markets globally. A memorandum of cooperation to boost bilateral cooperation on the creation of energy infrastructure in third countries was inked by Japan's Ministry of Economy, Industry and Trade and the US Trade and Development Agency.⁶⁸ Additionally, the US Overseas Private Investment Corporation signed a memorandum of understanding with the Japan Bank for International Cooperation and Nippon Export and Investment Insurance separately in view of developing joint-financing opportunities in the field of LNG-related infrastructure in third countries in Asia, Africa, the Indo-Pacific and Middle East.⁶⁹

Given the US–Japan agreement of joint enterprise to expand new market opportunities for US LNG exports, it is no wonder that Tokyo may find it difficult to keep politically covering up the lack of economic rationality to help Russia's ambition to increase its LNG supplies into international markets. It would be especially so in the case of further escalation of negative US–Russia relations.

68 'Japan and the United States Affirm Advancement of Cooperation in the Fields of Energy and Infrastructure', Ministry of Economy, Trade and Industry, accessed 3 September 2020, www.meti.go.jp/english/press/2017/1107_001.html.

69 'JBIC Signs MOU with OPIC of the US', Japan Bank for International Cooperation, accessed 3 September 2020, www.jbic.go.jp/en/information/press/press-2017/1108-58390.html; 'United States of America/Memorandum of Understanding on Cooperation between NEXI and Overseas Private Investment Corporation (OPIC)', Nexi, last modified 8 November 2017, www.nexi.go.jp/en/topics/newsrelease/2017110701.html.

The surging demand for natural gas in the Asia-Pacific has created a new arena for competition for LNG suppliers. Russia is accelerating efforts to drastically expand its LNG export capacity; however, amid the West's economic sanctions, its future will depend on the scale of greenfield Arctic projects, which are in need of tremendous investment. The US, which is projected to become the largest LNG exporter globally by the mid-2020s, has an increasingly optimistic future scenario in regard to shale gas production; however, it still needs to find new markets to make the best of its export potential. China is forecast to overtake Japan as the world's largest LNG importer by 2024, while the former is also to become the largest pipeline importer with gradual increases of gas supplies by land from Russia by around the same time.

A market-based projection of the regional energy landscape is subject to a range of political uncertainties and challenges. The aggravation of US–China relations may slow final investment decisions of US LNG projects, which have hitherto taken the huge Chinese gas market for granted. China, instead, could be encouraged to increase its commitment to Russia's gas sector, which is under mounting financial pressure due to the West's economic sanctions. Tokyo's strategy of politicising energy to capture Moscow's attention, thereby improving bilateral relations, if somewhat ignorant of economic rationality, may negatively affect marketing opportunities for US LNG suppliers.

This text is taken from *Russian Energy Strategy in the Asia-Pacific: Implications for Australia*, edited by Elizabeth Buchanan, published 2021 by ANU Press, The Australian National University, Canberra, Australia.

doi.org/10.22459/RESAP.2021.01