

JAPAN



Relationship issues

Russia is pushing for LNG investment as it seeks to supply Japan's gas market, report Mark Lowe and Robert Gilhooly, in Tokyo.

On the face of it, Japan and Russia could make perfect partners for growing trade in LNG. Japan has always had precious few fossil fuel resources for powering its sophisticated industrial economy, and Russia has plenty of gas to export. But while continuing demand in Japan has been encouraging investment in LNG production and logistics linking eastern Asiatic Russia with

Drilling operations at the Lunskeya-A platform, at the Sakhalin 2 project

Photo: Gazprom

Japan, a harsh climate, with ice-bound seas, has made this a tough challenge.

Japan currently imports around 90% of its crude oil (some 15.6tn barrels in 2017) from the Middle East, and around 4.5% from Russia. Its LNG suppliers, however, are more diverse – including Australia, Malaysia, Qatar and Russia – with the country importing almost 84mn tonnes in 2017, more than double the globe's next biggest importer, China (38.1mn tonnes). And while Japan's LNG imports fell 1% year-on-year in 2018 to 82.9mn tonnes, it is still a major market for Russian gas.

Substantial Russian LNG production facilities already exist in the country's far-east region, with plans for expansion in coming years. Daisuke Harada, Russia Project Director at state-owned Japan Oil, Gas and Metals National Corporation (JOGMEC), says Russia has 'massive potential' to supply Japan, citing US Geological Survey estimates of 90bn barrels of oil and 47tn cm of natural gas in the Russian Arctic.

And these reserves are already being tapped. 'Historically, Japan is the biggest buyer of Russian LNG,' says Sergey Kapitonov, a gas analyst at the Skolkovo Energy Centre, a strategic energy consultancy. 'Japan is a very important market for Russia's LNG.'

Meanwhile, Mikhail Korchemkin, Executive Director of Eastern European Gas Analysis, points out: 'Russia's Sakhalin Energy has been exporting LNG to Japan for about 10 years. The company has several long-term contracts with Japanese utilities.' In 2015, Sakhalin Energy's LNG plant produced 10.82mn tonnes of LNG for export to Japan, representing 64% of all LNG from its Sakhalin 2 plant.

'Already, two-thirds of LNG volumes from the Sakhalin 2 LNG plant go to Japan,' echoes Kapitonov. The remainder is delivered to South Korea, China and Taiwan by customer ships or company-chartered LNG tankers.

Sakhalin Energy is also developing the Piltun-Astokhskoye oil field and the Lunskeye gas field offshore north-eastern Sakhalin.

Japanese companies have been directly involved in developing these resources. Mitsubishi and Mitsui initially held a combined 45% share in Sakhalin 2, although these stakes were halved when control was handed to Gazprom.

Whether Japanese players

become involved in plans to develop a third LNG train on Sakhalin Island (the first is run by Exxon-Mobil) – called Sakhalin 3 – remains to be seen. Gazprom and Mitsubishi held discussions relating to the project in 2018, following talks with Mitsui two years earlier.

Harada says Sakhalin 3 would be a 'tough nut to crack', with a relatively small estimated output of 1bn cm/y and reserves deep enough to require US technology, which could be a problem given ongoing US sanctions against Russia following its 2014 annexation of Crimea from Ukraine.

Peninsula exports

Since 2017, Japan has also imported LNG from Siberia's far north-west Yamal Peninsula, including from the South-Tambeyskoye field operated by Novatek, which has reserves in the region of 683bn cm. However, supplies are expensive due to the difficulties of transporting the fuel, as the eastern sea route to Japan requires icebreaker ships in winter to push through the Arctic Ocean.

In July 2018, Russia and Japan announced plans to build a transfer terminal on the far eastern Kamchatka Peninsula in a bid to lower shipping costs from Siberian production sites. Novatek subsequently said that it intends to complete an LNG terminal on the peninsula by 2023. The LNG would still be shipped initially by specialised ice-class vessels but, at Kamchatka, it would be transferred onto cheaper conventional carriers for onward distribution. The icebreakers would then be able to turn around at Kamchatka and sail back to Yamal more often. The plan was formally approved by the Russian government in March 2019.

Gazprom has also outlined plans to build an LNG plant near Vladivostok, Russia's main Pacific sea port, which would service what the company describes as 'potential sales markets in the Pacific-Asia region'. It has described eastern Siberia and other parts of the Far East as 'a top priority'.

The Moscow-based gas major is seen by the Russian government as the programme coordinator for Russia's policy to establish an integrated gas, production and transport supply system to serve the Far East, with a view to promoting Asia-Pacific exports.

According to the Russian Ministry of Energy, Russia's energy strategy for 2030 forecasts that the Asia-Pacific market will by then consume 22–25% of Russian oil exports and 19–20% of Russian gas exports.

According to Kapitonov: 'The most advanced project is the Gazprom and Shell-led third train [expansion] of the Sakhalin 2 LNG plant, with capacity of 5mn t/y. The pre-front-end engineering and design stage has been completed.' He adds that the Novatek project to build an LNG trans-shipment terminal in Kamchatka will also stimulate the flow of Russian LNG from the Yamal LNG plant.

Kapitonov feels that, by and large, the economic and technical issues the region faces to expand LNG facilities have already been shown to be overcome. 'In terms of climate issues there are no challenges,' he says. 'The Sakhalin 2 LNG plant has been successfully working for 10 years with no climate-related incidents. We might talk about technical issues such as seismic activity while discussing offshore pipelines from Russia to Japan – but this project hasn't been considered seriously so far.'

Other factors may also hinder plans for such offshore pipelines, suggests Denis Suslov, Senior Research Fellow at the Economic Research Institute (Far Eastern Branch) of the Russian Academy of Science. Talk of constructing a potential Sakhalin-Hokkaido gas pipeline is misplaced, he says. 'The project cost is estimated [to be] at about \$6bn – and American political influence on Japan is another main reason why the construction of this is impossible today,' he explains.

A major potential competitor for Russian LNG in Japan will be liquefied gas exported from the US. The US Commercial Service has said that 'Japan is now expected to import billions of dollars of LNG from the US in coming years.' It has predicted that purchases will be made by major Japanese electric and gas utilities, with JERA

expected to be the largest importer. While the US is geographically further than Russia from Japan – its efficient shipping industry and the lack of icebound ports in either country could make US LNG more attractive than Russian for Japanese buyers.

Another concern for the future of Russian LNG trade is if the Japanese government makes good on its plans to rebuild nuclear capacity that was mothballed following the Fukushima disaster, reducing its demand for LNG, notes Kapitonov. However, these nuclear expansions have not yet made much headway.

Other export options

If nuclear capacity was rebuilt in Japan and demand for LNG imports fell as a result, there are other options for Russian exporters – most notably in China. Kapitonov points to the Power of Siberia pipeline now under construction, with a capacity of 38bn cm/y, which is due to start delivering gas to China in December 2019. 'Much will also depend on China's own production capabilities and Central Asian gas exports,' he adds.

Further options for expansion are also possible, although some are more practical than others, suggests Suslov: 'It's possible to extend the pipeline Power of Siberia to more ports in the Russian Far East and there are opportunities for realisation of other energy projects, which will increase volumes and capacity of hydrocarbon exports to Asia,' he comments. 'But decisions on their implementation largely depend on the reliability and interests of Asia partners.'

As for a pipeline to South Korea, Kapitonov says that politics, rather than demand or economics, will determine how this plays out over the long term. 'This question has been studied for a while, but before the necessary political developments on the Korean peninsula are finalised, it is impossible to imagine such a project.'

Further improving Japanese relations

One way in which Russia could woo Japanese trading relations – although securing investment in its LNG projects and boosting import contracts will probably remain based on purely commercial factors – would be the signing of a formal post-World War II peace treaty (which remains un-finalised). There is also an ongoing dispute over sovereignty of islands lying between Japan's

northernmost main island, Hokkaido, and Kamchatka in Russia, which Russia seized at the end of World War II. But such a resolution seems unlikely to happen in the short term. Indeed, the Russian Ambassador to Japan, Mikhail Galuzin, recently said Japan should accept these islands as Russian territory and instead focus attention on addressing Russian concerns over the Japan-US security treaty.

This has not stopped the two countries negotiating economic deals, however. Since 2012, Japan and Russia have held 26 rounds of talks, developing an eight-point Japan-Russia economic cooperation plan that includes infrastructure and other development projects in Russia.

Other energy areas where the two countries are looking to cooperate are nuclear and wind power. Russia and Japan have begun collaborating on renewable energy initiatives, among them one that was launched in early 2014 to develop wind power plant technology that facilitates operation at low temperatures in regions of the Far East.

At a Japan-Russia summit in 2016, at least one-third of the 68 commercial deals that were signed concerned energy. A Japanese Foreign Affairs Ministry official said there were 23 such energy deals signed. But added no details have yet been released about these projects. However, Joshua Walker, Global Head of Strategic Initiatives and Japan for political risk consultancy Eurasia Group, says Russia's relatively inaccessible eastern LNG reserves and its unpredictable economy and politics, particularly if Vladimir Putin retires from the presidency in 2024, means Japan should take the long view in strategic agreements with Russia.

'It would take a lot of development for Russia to reach the capabilities of say Qatar,' he comments. 'Energy security is constantly used to say that's why Japan needs to deepen its relationship with Russia. In the short term, I don't buy that... Japan's energy needs are so massive that, when it comes to looking at a diversified energy market and LNG especially, it would be better off looking elsewhere, such as the US, especially in the long-term.' Indeed, he suggests that Russia is refusing to resolve the island territorial dispute to provide a political carrot to attract greater Japanese investment in Russian LNG. ●

Grand Aniva gas carrier at the Sakhalin 2 LNG plant
Photo: Gazprom

