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Yuri Fedorov reports from Prague:

ENERGY EXPORTS TO EAST ASIA1 AS PART OF RUSSIA'S STRATEGIC PIVOT TO THE EAST

ANNOTATION

As a result of Western sanctions imposed on Russia, in the spring of 2014 Moscow brought a strategy known as "a pivot to the East" to the forefront of its foreign policy. This strategy is commonly held to include the following points:

- Accelerated development of the Russian Far East and Eastern Siberia;
- Overcoming the economic, social, and demographic imbalances between western and eastern Russia, which are slowing down the whole country's development;
- Accelerated exploration and exploitation of eastern Russia's natural resources (which are needed to compensate for the depletion of natural resources in the European part of Russia and in Eastern Siberia);
- Attracting large foreign investors to help achieve the above goals;
- Achieving Russia's comprehensive integration into the Asian economy; the reasons for that include Moscow's belief that there is no longer any room left for closer ties with Europe and the United States.

Meeting these objectives would serve Russia's national interests — but to what extent, and how quickly can they actually be met? PIR Center expert Yuri Fedorov believes that at this point in time, the implementation of Russia's new foreign-policy strategy boils down to searching for new energy markets in East Asia, as well as trying to identify potential sources of financing and high-tech equipment that are required to develop new oil and gas fields and build new pipelines. In this paper Fedorov analyses the current state of that policy, the problems facing it, and the outlook for its implementation.

¹ For the purposes of this paper, the definition of East Asia includes all APEC states, with the exception of the United States and other North American countries, Chile, Peru, Australia, and New Zealand.

The concept of Russia's pivot to the East was formulated at the turn of the century. Nevertheless, up until the spring of 2014 Moscow had maintained its traditional focus on relations with the former Soviet states and with the Western countries. Western sanctions have now propelled the pivot to the East to the forefront of Russia's foreign policy. In practical terms, the changes boil down to searching for new markets for Russian oil and gas in the East Asia region, as well as trying to identify new sources of financing and high-tech equipment required to develop new oil and gas fields and build new export pipelines. The reasons for that are threefold:

- ullet $\underline{\mathit{First}}$, the Russian leadership is concerned with falling energy exports to $\underline{\mathit{Europe}}$.
- <u>Second</u>, one of the key components of the pivot strategy is to increase Russian trade with the East Asian countries. The only way to achieve that increase is to ramp up Russian energy exports to the region. Other Russian exports are not able to compete in the Asian markets.
- <u>Third</u>, Moscow is very mindful of the interests of the largest Russian oil and gas companies, especially Rosneft and Gazprom, which are finding themselves in a difficult situation as a result of the economic sanctions.

OIL

Hydrocarbons - primarily oil and coal - currently account for about 75 per cent of Russian exports to East Asia. In 2013 Russia exported about 43m tonnes of oil to the region's countries, which made up about 20 per cent of the entire Russian oil exports to non-CIS states. The region's largest importer of Russian crude was China, which bought about 24.3m tonnes of it, worth 19.7bn dollars. China also imported 8bn dollars worth of Russian petrochemicals, including lubricants.

	Million tonnes	Share of national imports, %
China	24.3	9
Japan	11.4	7
South Korea	5	4
Others	1.5	Less than 1 %

<u>Table 1</u>. Russian oil exports to East Asia in 2013. Source: Energy information administration (www.eia.gov).

According to preliminary data, in the first half of 2014 Russian oil exports to East Asia rose, thanks largely to falling exports to Europe. East Asian destinations now account for about a third of Russian oil exports, excluding sales to the CIS states. If this trend continues, Russia will have sold up to 60m tonnes of crude to East Asian customers by the end of 2014.

China will remain the region's biggest buyer of Russian oil over the next several years. Under the contracts that have already been signed, *Rosneft* expects to supply up to 720m tonnes of crude to China by 2037. Average annual supplies of Russian oil to China will reach about 30m tonnes after 2020.

Partner	Contract signed	Amount, million tonnes	Deliveries in	Value, billion dollars	Upfront payment, billion dollars
CNPC	2004	48	2005-10		6
CNPC	2009	300	2011-37	100	10 + 15 *
CNPC	June 2013	365	2013-37	270	60-70
Sinopec	October 2013	100	2014-23	85	25

^{*}China has given a low-interest loan of \$15bn to Rosneft and another loan of \$10bn to Transneft.

Table 2. Rosneft oil export contracts with China. Data from Russian open sources.

Rosneft hopes to increase its oil exports to China to 50m tonnes per annum, but there are doubts as to whether these hopes are realistic. Such an increase in Russian exports will require a speedy and successful development of large new oil fields in Yamal (the Suzunskoye, Russkoye, Messoyakhinskoye, Pyakyakhinskoye, Tazovskoye, and Zapolyarnoye fields) and Krasnoyarsk Territory (the Kuyumbinskoye and the Yurubcheno-Tokhomskoye fields). Recent reports suggest, however, that only 7.4m tonnes of oil will be pumped in 2016 via the Zapolyarye-Purpe oil pipeline, which connects Yamal to the Eastern Siberia - Pacific Ocean (ESPO) pipeline; previous estimates put the figure much higher at 20m tonnes. Also, only 8.5m tonnes of crude will be pumped in 2020 via the Kuyumba-Tayshet pipeline, down from the previous estimate of 14m tonnes.

An increase in Russian oil exports to Asia to 65-70 million tonnes per annum by 2020 will only be possible if Russia reduces its oil exports to Europe by 30-35 million tonnes per annum, which is about 20-25 per cent of its current oil exports to non-CIS countries. This has to do with falling production at the old oil fields, whereas growth of production in the east of the country is lagging well behind schedule. Also, an increase in Russian oil production will depend on ramping up the output of difficult oil at fields that require expensive investment and advanced technology; both will be hard to obtain because of Western sanctions.

The strategy of ramping up Russian oil exports to **China** is drawing sharp criticism from some quarters in Russia itself. The low-interest loans that Russian companies received from China were issued using massive future oil exports as a *collateral*. That oil has yet to be produced at new fields that have yet to be fully developed; production at some of these fields has not even begun. Meanwhile, the loans received from the Chinese are already being used up by *Rosneft*. In fact, most of that money is being channeled into paying old debts or financing new acquisitions of smaller companies, rather than developing new fields or building the required infrastructure. The price formula is not being released into the public domain, either. As a result, many have begun to suspect that the increase in Russian oil and gas exports to China is in fact damaging to Russian national interests. Finally, there are grave doubts as to the long-term strategic consequences of Russia's current foreign-policy course.

NATURAL GAS

The outlook for Russian exports of natural gas to East Asia depends on the following factors:

- Size of liquefied natural gas (LNG) exports;
- Gas supplies via the "Siberian Power" pipeline to eastern China and via a future new pipeline to Western China;
- Implementation of the projects (now under discussion) to build new gas pipelines to South Korea and Japan.

For now, the Sakhalin-2 facility is the only source of Russian LNG exports to East Asia. In 2013 that facility produced 11m tonnes of LNG, of which 9m was shipped to Japan (making up about 10 per cent of Japan's LNG imports) and 2m tonnes to South Korea (5 per cent of South Korean imports). A new facility in Yamal may also begin to export LNG to East Asia; in fact, contracts have already been signed with Asian countries for most of its future output. Another LNG production facility is expected to come on line in Vladivostok in 2018-2019; that facility will serve only the Asian markets. The prospects for the implementation of the Far Eastern LNG project (which is linked to the Sakhaklin-1 project) by Rosneft and ExxonMobile remain unclear.

Project		Launch	Output, million tonnes per annum
Sakhalin-2		2009	Up to 11
	First stage	2018	5
Vladivostok LNG	Second stage	2020	+ 5 (for a total of 10)
Yamal LNG	First stage	2017	5.5
	Second stage ъ	2018	+ 5.5 (for a total of 11)
	Third stage	2019	+5.5 (for a total of 16.5)
Far Eastern LNG	project	2018	5

<u>Table 3</u>. Russian LNG projects targeting Asian markets.

Data from Russian open sources.

If all these plans are implemented (which is not a foregone conclusion), Russia will be able to supply 37m to 42m tonnes of LNG (an equivalent of 51-58 billion cu.m. of natural gas) to the Asian markets every year after 2020. According to experts at the Skolkovo center, this figure will account for 9-11 per cent of annual global LNG consumption after 2020. By that time, global LNG production capacity will double to about 580m tonnes per annum. This will lead to an oversupply on the LNG market and a significant fall in LNG prices. The output of Russia's future Vladivostok LNG facility may well prove too expensive to compete with other suppliers.

Over the next several years China will remain the only East Asian destination of Russian natural gas exports via pipelines. Gas will be supplied under the Gazprom contracts with CNPC (China National Petroleum Corporation) that were signed during President Vladimir Putin's visit to Shanghai in May 2014. Over a period of 30 years starting in 2019 or 2020, Gazprom will supply about 1,100bn cu.m. of gas to China (which translates to an average of 38bn cu.m. per annum) via the Siberian Power pipeline. The price of that gas is expected to be in the region of 350 dollars per 1,000 cu.m., but the actual price is linked to the oil prices and will fluctuate depending on the situation in the oil market. Natural gas for exports to China will be produced at the Chayandinskoye field in Southern Yakutiya, and, starting in 2024-2025, at the Kovykta field in Irkutsk Region. The entire project will require 77bn dollars of investment. According to various estimates, 25bn to 40bn of that money will be spent on building the pipeline. Over the first five years Gazprom will supply an average of 16.4bn cu.m. of natural gas every year; the figure is projected to reach 38bn cu.m. per annum only by the mid-2020s. The Russian government has exempted natural gas exports to China from the mineral resources tax, otherwise the contract with CNPC would have been loss-making for Gazprom.

Russian experts closely linked to the government, as well as the Russian media, recognize that the project will barely be able to break even. Nevertheless, they stress the political benefits it offers Russia, in view of the possible reduction in gas exports to Europe. Meanwhile, independent experts are worried about Russia's growing economic dependence on China, which entails political dependence as well.

Even though China's gas consumption is growing, it remains unclear whether Russia will be able to increase its exports to that country beyond the already agreed 38bn cu.m. per annum. The future of the proposed Western Route for gas exports from Western Siberia to Xinjiang also remains uncertain. Beijing has major doubts about the feasibility of that project since it hopes to ramp up domestic gas production. It is pressing ahead with the exploration of its huge shale gas reserves. It also hopes to increase gas imports from Turkmenistan to 60-65 billion cu.m., and it has already signed contracts for the next 10 years to import 73.5m tonnes of LNG, which is equivalent to about 100bn cu.m. of natural gas.

There are no realistic prospects for Russian exports of natural gas via pipelines to **other East Asian countries**, even though Japan and South Korea would be interested in importing such gas since it would be cheaper by an average of 30 per cent compared to LNG. Russia, however, is primarily interested in sustainable exports of LNG to be produced at its new facilities. As a result, Gazprom is showing little enthusiasm for a **Japanese** proposal to build a pipeline connecting gas fields in Sakhalin to Hokkaido. The capacity of the proposed pipeline is 20bn cu.m., and the whole project would cost about 6bn dollars.

The implementation of several proposed pipeline projects from the Russian Far East to **South Korea** also seems unlikely. The proposal to build an overland pipeline via North Korea is unrealistic for political reasons, and laying a pipeline along the sea bottom is not feasible because of the difficult underwater terrain in the Vladivostok area, great depths, and a relatively low volume of the proposed gas exports (10bn cu.m.) The only option that could potentially be implemented is to build a pipeline via China, with a submarine leg along the bottom of the Yellow Sea. That project, however, is still being discussed, with no agreement in sight.

If all the plans that exist at this time are actually implemented, Russia will be able to export about 40m tonnes of LNG (55bn cu.m.) to East Asia by the mid-2020s, plus 38bn cu.m. of natural gas via pipelines. Taken all together, these figures represent about 60 per cent of Russia's current gas exports to Europe.

COAL

Coal exports are a much less lucrative business than oil and gas. The kind of coal that is used by power plants commands a price that is roughly one-tenth of the price of oil; the price of coke coal is one-fifth of the price of crude. Nevertheless, Russian coal exports to Asia have been growing much more rapidly than exports to Europe and the former Soviet republics. To illustrate, Russian coal exports to the European countries rose by 250 per cent to 71m tonnes between 2000 and 2012. Over the same period, exports to the Asia Pacific region rose by as much as 400 per cent to 48m tonnes.

In 2010-2013, 70 to 90 per cent of Russian exports to Asia were destined for three countries: China, Japan, and South Korea. The Russian Ministry of Energy intends to double coal exports to Asia to 110-120m tonnes by 2030 by means of diverting production previously destined for other countries and launching new production in Eastern Siberia and the Far East. These plans are predicated on the projection that coal demand will grow by 50 per cent in the Asia Pacific region by 2030.

It has now become obvious, however, that the implementation of these plans has run into serious problems:

- Russia will need to significantly increase the export capacity of its Far Eastern ports, which currently stands at 70m tonnes per annum, and the eastward capacity of its two main railway lines, the Trans-Siberian line and the Baikal-Amur line. The railway capacity will have to increase from the current 60m tonnes to 130m by 2020, which will require an investment of 20bn dollars.
- The main Russian coal fields are thousands of kilometers away from the potential Asian markets. Transport overheads make Russian coal significantly less competitive compared to rivals from Indonesia and Australia, who currently control up to 90 per cent of the East Asian market.
- Developing new coal fields in the Russian Far East and Eastern Siberia will require massive foreign investment, which will now be very difficult to attract.

To summarize, further exploration of energy resources in Eastern Siberia and the Russian Far East is facing major difficulties:

- In addition to large oil, gas and coal fields, there are numerous small ones. Licenses for their exploration are currently held by a large number of smaller companies.
- There is a lack of industrial, pipeline and transport infrastructure; large swathes of Russian territory are very poorly explored, and there is a big gap between projected and explored resources.
- There is an unresolved problem with using and processing the ethane, propane, butane, condensate, and especially helium contained in the oil and gas produced in Eastern Siberia and the Far East.

CONCLUSION

- > Speeding up the exploration of energy resources in Eastern Siberia and the Far East is a necessary precondition for overcoming the deep imbalances between western and eastern Russia. But this strategy will also facilitate the preservation of Russia's current economic model, which is centered on exports of raw materials and minerals, and prevent its technological and institutional modernization. On top of that, such a strategy will not be able to achieve a comprehensive and systemic development of eastern Russia's resource base any time soon. All it can do is attract Chinese investment into developing a handful of large oil and gas fields, and increase Russia's exports of these resources, primarily to China.
- ➤ If all the existing plans come to fruition, Russia will be able to increase its gas exports to East Asia to 80-90 billion cu.m. in the early 2020s, thanks mainly to ramping up LNG production. It will also be able to increase oil exports to the region's countries by another 30-40m tonnes. This will enable Russia to diversify the geographic structure of its exports of hydrocarbons, and compensate to some extent for the likely fall in energy exports to the European market. But the reduction in Russia's dependence on the Western markets for hydrocarbons that can realistically be achieved by the end of this decade will be fairly small.
- Meanwhile, China will acquire a much greater role as a major importer of Russian energy. This will increase Russia's economic, and therefore political dependence on China, and Beijing will have a much greater influence on the strategically important sectors of the Russian economy. Meanwhile, it is far from certain that Rosneft and Gazprom will be able to pay off their mounting debts to China by ramping up their oil and gas exports to Chinese customers.



The author of this paper is Yuri Fedorov, PIR Center's expert, member of the PIR Center Executive Board.

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Best regards

Dmitry Polikanov Chairman Trialogue Club International

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