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“Russia’s strategy of leadership in the global Liquefied Natural Gas (LNG) industry: strengths and weaknesses”.

Abstract.

An interim between 2007 – 2012, was marked by Russia’s beginning strategic re-orientation towards Asia-Pacific region. This process was greatly accelerated with the outbreak of the Ukrainian crisis and the economic-political debacle in relations between Russia and its western counterparts. In pursuit of this “Pivot to Asia” strategy Russia primarily relies on its vast natural resources – primarily non-renewable energy – located in Arctic region and High North. This article examines Russia’s plans in the realm of commercialization of its Arctic-based LNG project as both the means of state budget revenue and a geo-political tool. The article argues that whereas Russia has several competitive advantages in pursuit of this strategic goal, however there is a number of serious limitations that could impede Russia’s ability to be able to fully capitalize Arctic vast LNG deposits.

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Key words.

Russia, Arctic, LNG, NSR, sustainability, non-renewable energy.

Extended Abstract

Quote by a Russian scientist Mikhail Lomonosov, that “the Russian power will grow by Siberia and the Northern Ocean”, has gained new meaning after 2014. A debacle in economical-political ties between Russia and its western counterparts made Russia’s growing orientation on (North)

Asian markets – highlighted in the “Pivot to Asia” strategy – even more avid (the Arctic region, High North and Eastern Siberia). Moscow aims to use its resource-endowed Arctic region – notably, its geographic definition was also officially formalized in 2014 – as a locomotive of the country’s internal socio-economic development and a means of diversification of its foreign economic ties.

In addition to the vast bio-marine resources, new commercial transportation route(s), rare earth minerals, tourism and agriculture, for Russia, the strategic geo-economic importance of the Arctic region is inseparable from its large non-renewable energy resources whose export still accounts for around 54 percent of Russia's total export revenues, although estimates vary. According to some estimates, the macro-region contains approximately 7.3 billion tons of oil and about 55 trillion cubic meters of natural gas. Given the fact that the last comprehensive geological explorations in the macro-region took place before 1987, it is safe to argue that currently no more than 2 percent of the region’s resource potential has been discovered.

Despite the growing orientation toward “green” and renewable energy, no major conventional energy producers – despite their strong commitments to invest in new types of energy and diversify energy exports – plan to stop exporting non-renewable energy; and Russia is no exception. The energy crisis in Europe (late 2021 – early 2022) and the booming energy consumption in the Asian Pacific region have vividly demonstrated a very high probability that non-renewable energy will retain a central role in energy mixes of all major economies for at least the upcoming two or three decades. At the same time – if the use of oil and coal is indeed to recede in the future – consumption of natural gas, as a source of cleaner energy and an indispensable element in production of certain types of “green energy” (such as blue hydrogen), is likely to increase. For Russia – the world’s most natural gas-endowed nation – wilding strategic inroads to energy hungry Asian Pacific markets – this opens up a range of geo-political (strengthening its role in the Asian Pacific region and its partnership with China), economic, and business prospects. Even today Russia’s Arctic region stands for nearly 10 percent of Russia’s total GDP and secures no less than 10 percent of inbound Foreign Direct Investments (FDI).

the costs of the extraction and transportation of Arctic-placed oil are high. In practical terms, to reach breakeven point (BEP) and start generating profits from its Arctic oil megaprojects, Russia would have to attract FDI and/or heavily subsidize extraction and transportation of oil. Indeed, a combination of massive state support, potential transformation of the Arctic region into a Free Economic Zone (FEZ) and some tax stimuli for businesses could bring about positive effect. However, given worsened ties with the EU (and the US) as well as China’s evasive position the source of much-needed FDI is unclear. Furthermore, for now the only visible outcome of Russia’s growing involvement in oil projects in the Arctic are growing expenses and increasing calls from Rosneft top management for more subsidies and state support. At this juncture it would be important to underscore a request that Putin shared with Sechin, specifically asked the Rosneft CEO to “make very good calculations” with regard to the profitability of the megaproject, meaning that Putin might have serious doubts about the commercial side of the project.

Third, the aforementioned gradual departure from oil by Russia’s top customers. This – undoubtedly long(er)-term trend – is visible not only among environmentally sustainable EU members (such as Finland) but also such actors as China. Aside from active reliance on diversification of supplies, Beijing has confirmed its determination to switch to the carbon neutral economy by 2060 and voiced its readiness to start gradually reducing its oil imports, which has alarmed the Russian expert community. Furthermore, given the 400-billion deal with

the oil-endowed Iran and growing interest in Iraqi deposits Russia's role in China's oil imports mix might be weakened, which in turn could challenge some key pivots of Russia's Arctic Strategy.

Lastly, the ecological issue, which gives additional "trump cards" to Russia's opponents in the West and, covertly, other oil suppliers. Russian scientists have argued that oil extraction presents paramount challenge to the entire Arctic ecosystem. In effect, based on Russian calculations in 2019 alone, out of 17,000 accidents in Russia's fuel-energy sector, more than 10,500 involved oil facilities mainly located in the High North. This means that, on average, one accident took place every thirty minutes. For Russia, which is seeking to maintain an image of an ecologically sustainable Arctic player new environmental catastrophes will mean continued reputational damage(s) – a prospect that Russian political leadership would want to avoid.

Russia's LNG industry: first steps.

From a global perspective, the historical roots of the LNG industry began in the early 19th century when Michael Faraday conducted the first experiments with liquefying different types of gases. These trials were followed by Karl von Linde, who successfully built the first industrial compressor refrigeration machine in Munich (1873). Commercial exploitation of LNG did not however begin until 1941, when first liquefaction and regasification facilities started operating in Cleveland (US). International operations with LNG commenced in 1959, when a US Constock company conducted first delivery of LNG from Louisiana (Lake Charles) to the UK. Starting from the second half of the 1960s, LNG from the US started to arrive to economically rising Asian markets (Japan). Taken together, these processes marked the advent of the first LNG revolution with the US, Indonesia, Algeria and later Qatar and Australia forming the vanguard of the world's top exporters.

The USSR joined the LNG industry with a significant delay. First ideas related to the commercial exploitation of LNG in the Soviet Union started to circulate between 1945-1947, yet due to worsening political ties with the US – which was ready to supply Moscow with necessary technologies – the issue did not move forward. Later, in the 1970s American companies proposed the Soviet side to build LNG facilities in Murmansk and Magadan to allow access of inexpensive Soviet gas to the US market. This proposal, however, did not receive proper attention in Moscow; whereas later (in the 1980s) when the Soviet authorities became interested, the war in Afghanistan and ensued sanctions hindered potential cooperation once again. Another reason obstructing the use of LNG was the Soviet growing engagement in NG delivery (via pipelines) to the European customers, at a time a clearly priority for Soviet authorities.

After 1991, Russian authorities – still unconditionally believing in the dominance of gas pipeline networks – repeated the same mistake and missed the ongoing boom in the global LNG industry. As a result, Russia finally joined the "LNG race" only in 2009, with the launch of the Sakhalin-2 project. A combination of a late start, lack of clear strategy, economic miscalculations and technological weakness resulted in a de-facto collapse of several major LNG projects. For instance, both the Kharasavey (the north-western part of the Yamal Peninsula, 480 km north of Salekhard) and the Baltic LNG (the Baltic Sea) were cancelled at the stage of financial analysis; whereas Shtokman LNG Terminal (Barents Sea area) – that fell prey to a combination of the global economic crisis (2008) and a new boom on the US LNG market and was officially frozen

in 2012 – became, perhaps, the best example of the general weakness of Russia`s LNG industry at that time.

The about turn occurred in 2013, most likely, under the influence of Russia`s growing “Pivot to the East” strategy and strengthening economic cooperation with Asian players in general and China in particular. On 1 December 2013, a decree on liberalization of export of LNG came into force. This document had a genuinely transformative effect on the entire Russian LNG industry, allowing other companies – other than Gazprom, which had enjoyed this right all along – to export LNG, which led toward the rise of Rosneft and Novatek as two additional actors in Russia`s LNG industry. These transformations resulted in a rapid growth of the domestic LNG industry and Russia`s transformation into one of the leading LNG producers worldwide.

seriously compromised.

Conclusion.

Russia`s plans related to the economic revitalization of its Arctic region and High North is inseparable from the use of non-renewable energy resources and LNG. In pursuit of its LNG-related initiatives Russia could rely on several competitive advantages. However, these are balanced by some serious challenges that could have a negative impact on Russia`s ambitions. Thus, at least four fundamental issues arise. First, will Russia be able to minimize expenses associated with the implementation of the full complex of actions – including, among others, establishing appropriate infrastructure – related to the exploitation of its vast LNG potential? In the case this is not achieved, it will be very difficult for Russian producers to keep Arctic LNG projects economically sustainable, which, in turn, would translate into a very low rate of Return on Investments (ROI).

Secondly, despite the liberalization of the LNG industry, latest tendencies demonstrate that the role of some large corporations, whose top management relates to the Kremlin, is becoming disproportionality high. With increasing international sanctions and abridging international contacts this trend could translate into emergence of a planned, Soviet-style configuration, that could seriously damage general competitiveness of Russia`s LNG industry.

Thirdly, to what extent will Russia be able to deal with its opponents and competitors, both directly and indirectly? In addition to traditional LNG-producers currently several new/emerging players are appearing. This, however, is only one side of the issue. As stated earlier, Russia`s competitors could try to rely on other means of competition – including sanctions and/or an environmental agenda – that could present a serious challenge to Russia`s plans.

Finally, in case Russia`s (economic) isolation increases and/or remains at current level and the EU finds the way of substituting energy imports from Russia, economic sustainability of exploitation of Arctic/High North energy deposits will be compromised.