Proliferation of liquefied natural gas (LNG) in the Baltic Sea region (BSR) has recently been celebrated for two reasons. Firstly, its flexible logistics allows diversification of gas supply sources, and what with the escalation of political tensions between the EU and Russia – prompted by the Ukrainian crisis – the issue of energy independency has become particular relevant, as has the desire for gas supply diversification in the BSR. Since LNG takes up only about 1/600th the volume of natural gas, greater volumes can be stored at smaller facilities and delivered on-demand by ship, truck or train. Therefore LNG is conceived as an ‘ideal candidate’ to improve European energy security.

Secondly, used as a bunker fuel, LNG significantly reduces SOx, NOx and PM emissions in shipping exhaust fumes, making it an attractive compliance option for operating in the Baltic sulphur emission control area (SECA). Due to a diversity of potential uses (including maritime) and environmental characteristics superior to oil-based energy sources, natural gas has been envisaged as a primary means to succeed in one of the most prominent contemporary challenges: energy transition.

**LNG facilities in the BSR**
The availability of LNG in the BSR has been limited due to the absence of adequate import infrastructure. Sweden’s (and the Baltic’s) first LNG terminal in Nynäshamn was opened in 2011, and in Autumn, 2014 import terminals in Klaipeda (Lithuania) and Lysekil (Sweden) followed. Now we observe a boom in LNG facility construction around the BSR. If current plans are realised, by 2020 the BSR will have a dozen import facilities with total regasification capacity exceeding 15 million metric tonnes per annum (MTpa) (see Figure 1).

The new terminals are mostly planned as mid-sized (up to 100,000 MTpa) import facilities that will serve three purposes: diversify gas supply, assist energy transition, and supply LNG for bunkering. In light of Russia’s ambitious plans to significantly increase its share in the global LNG trade in the coming decade, it seems relevant to provide an overview of the upcoming Russian LNG facilities as a part of Baltic LNG infrastructure development.

**Russia in the LNG market**
Natural gas is Russia’s major energy asset. Yet in the LNG market Russia was a latecomer when production started in 2009 in Sakhalin (see Figure 2). Lack of LNG was identified as one of the central problems of Russian energy policy as it signifies “insufficient development of production of energy products with high added value” (Russian Energy Strategy 2030), which causes large-scale export of un–or only slightly–processed gas and as a consequence lower incomes from sales.

Currently, six large-scale production facilities are scheduled for construction: Yamal, Gydan and Pechora in the Arctic, the Vladivostok and Sakhalin projects in the Far East, and a Baltic LNG plant in the Leningrad region (Figure 3). According to the Russian Ministry of Energy, Russia is to increase its production capacity to 50-60 million MTpa by 2025. Therefore, The Russian Energy Strategy up to 2030 emphasises that development of seaport and transport infrastructure for liquid hydrocarbon transportation is among the most important strategic energy infrastructure projects with the potential to enhance Russia’s position on foreign markets. Due to political and economic reasons, Russia is also trying to diversify away from Europe and sees its sales potential primarily in Asian markets.

**Baltic LNG plans**
A plan for an LNG liquefaction facility along the Baltic shore commenced in 2004 with the registering of a joint venture between Gazprom and Sovcomflot, however it was frozen at the planning stage. The facility, planned together with PetroCanda, Mitsubishi and Eni was supposed to supply ca. 5 MTpa by 2010. The reason the project was cancelled was the existence of a commercially attractive alternative – an underwater gas pipeline, ‘Nord Stream’, eventually launched in 2011. Yet in autumn 2013, Gazprom announced its plans to revive the Baltic LNG project in a new form and with new partners.

**Ust Luga**
The multi-purpose port Ust Luga was selected as a future site due to favorable climatic conditions (ice coverage during
Gazprom’s plans to promptly increase its supply capacity in the BSR have been challenged, however realistic the timetables and availability of investment and technology. Yet, several considerations shall be brought to light:

- Though LNG facilities planned for the Baltic are rather modest compared to other regions, they are significant at the regional scale. The Baltic LNG plant is mainly meant to serve the European markets, providing an alternative to LNG from Norway or Qatar and covering the demand for LNG bunker in Baltic and North Sea areas. Instead, Russian Arctic and Far East facilities are meant to supply Asian markets

- Russian LNG terminals shall be understood in terms of politics as much as in terms of economics. Even when commercial viability may seem weak, projects may get subsidies as the Russian government seeks to gain momentum in the growing Asian and emerging European local LNG markets

- The port competition in the eastern Baltic range has been tightening ever since commercial operations commenced in Ust Luga. Due to its dynamic development and growing diversified facilities, Ust Luga is considered as the main competitor to ports in Estonia and Latvia. With the development of LNG facilities, it will gain a unique competitive advantage and may become Russia’s major transshipment hub

Conclusion

Gazprom long pursued a strategy of maintaining control over the entire supply chain – from production to end sales, which according to Gazprom’s Head of Foreign Economic Activities, Pavel Odervo, will remain the case with its LNG strategy.

About the author

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About the organisation

The Aleksanteri Institute at the University of Helsinki (Finland) functions as a national centre of research, study and expertise pertaining to Russia and Eastern Europe, particularly in the social sciences and humanities. The institute promotes cooperation and interaction between the academic world, public administration, business life and civil society, both in Finland and abroad.

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