

The Other Pivot: Russian Energy Policy Toward China

Law360, New York (June 10, 2013, 2:25 PM ET) -- In 2010, when the Obama administration announced a new policy of engagement in the western Pacific, known as the "Pivot," it was clear that China's quest for secure supply lines for resources, and in particular energy, was a key factor. Energy is likewise the driver in another less noticed, but quite important pivot that is now fully underway: a pivot in Russian energy policy toward China. This Russian pivot could have equally profound geopolitical effects and it will certainly have profound effects on the global energy market.

The key to understanding the global energy market (and infrastructure) is gas, and in particular the key to the Russian energy pivot is liquefied natural gas (LNG).

China is engaged in a long-term switch from coal to gas for electricity generation; the International Energy Agency (IEA) forecasts that China's gas consumption will reach 260 billion cubic meters per year by 2016. And much of this gas will arrive on Chinese shores in the form of LNG. Although expensive and dangerous to transport, LNG has one very important strategic advantage over pipeline gas: unlike the long-term "locked-in" nature of pipeline gas, LNG could form the basis for a freely trading spot market. Between the various state-owned Chinese oil companies, there are at least 15 LNG regasification terminals on the drawing board, and five LNG regasification terminals are already in operation, most of them operated by China National Offshore Oil Corporation (CNOOC). In fact CNOOC has recently allocated funds for a new LNG regasification terminal in Diefu, on the coast in Shenzhen, while CNOOC's competitor, China National Petroleum Company, is likewise reported to be considering an LNG regasification terminal in Shenzhen, which would be the third in that province after Diefu, and the existing terminal at Dapeng. So how will China source LNG in the medium to long term?

Russia aims to be a big part of the answer, but this is far from obvious on current trends. At present, Russia is the largest exporter of natural gas in the world by a significant margin, having exported approximately 178.7 billion cubic meters of gas in 2012, according to the Russian Central Bank. But this figure is down nearly 8 percent (by volume, from 193.9 billion cubic meters) from 2000, when Putin took office, and down by 14.5 percent (by volume from 209.2 billion cubic meters) since its peak in 2005.

Russia's Gazprom, the state-owned giant that supplies nearly 25 percent of Europe's gas, sells most of its gas via pipelines to Europe (and the rest of the CIS) and, based on the pipeline projects planned or underway, it would be logical to assume that this is its and Russian's long-term business model. Gazprom already has export capacity of nearly 250 billion cubic meters, well in excess of what it needs for current exports to Europe (just under 140 billion cubic meters in 2012). Yet several further pipeline projects are underway, including South Stream (which will cross the Black Sea from Russia to southeast Europe), Nord Stream Three and Four (additional to two pipelines that already cross the Baltic from Russia to Germany) and Yamal Europe Two (from the Yamal Peninsula in northwest Siberia to Poland). All of these projects together would add more than 130 billion cubic meters of capacity — far more than Europe could conceivably buy from Russia in the medium term.

The explanation for this spare capacity is as much political as commercial. Much of Gazprom's current pipeline capacity (some 140 billion cubic meters) runs through Ukraine, and even with the friendlier (to Russia) President Yanukovich in Kyiv, the price disputes and subsequent disruption of 2009 are ample explanation for Gazprom to seek alternative capacity. But even subtracting the Ukrainian capacity, if all of the new capacity is built it still significantly exceeds realistic medium-term exports to Europe. How does this square with Russia becoming a major LNG supplier to China?

In Europe, it is evident that Russia is specifically aiming to have spare capacity in order to gain leverage and reduce dependence on particular transit routes and customers (viz-Ukraine). Further it is not clear at this writing if the EU will approve all of this new capacity (in particular Nord Stream Three and Four), and Gazprom also faces hurdles in the form of the Third Energy Package, a set of EU regulations that prohibit the vertical integration of gas suppliers and transporters in the EU.

Gazprom also has pipeline ambitions to the east; the greatest being the new "Power of Siberia" pipeline that, when completed, will span from Yakutia (in eastern Siberia) to Vladivostok on the Pacific, partially shadowing the oil pipeline known as ESPO (for East Siberia-Pacific Ocean) at a distance of more than 3,000 kilometers, with a capacity of more than 32 billion cubic meters per year. To finance this project, substantial long-term offtake agreements need to be in place. Gazprom might try and finance the construction, at least in part, out of pre-payment for gas deliveries. But if Gazprom's problem in Europe is EU resistance to vertical integration and trying to control pipeline capacity in order to better leverage multiple customers, the problem for Gazprom in China is dealing with, effectively, a single customer, and negotiating the price. For years, Gazprom has argued that gas prices should be linked to oil prices, as in Europe, while the Chinese have insisted on decoupling the linkage, and have cited the lower prices that China is paying for pipeline gas from central Asia, for example from Turkmenistan delivered by the Trans-Asia Gas Pipeline. In late March Gazprom and CNPC signed a Memorandum of Understanding (MoU), as a showpiece of cooperation during President Xi's visit to Russia.

Technically, the MoU only applies to a spur of the Power of Siberia pipeline, but the press in both countries hailed it as a precedent and a positive step, and the Chairman of the Board of Gazprom, Viktor Zubkov, predicted that Gazprom and CNPC would reach agreement on pricing (for that spur) by this summer.

What Gazprom lacks in both pipeline strategies, east and west, is flexibility and leverage. In Europe, the additional pipeline capacity may enable volumes to be redirected, whether around recalcitrant transit countries (and consumers) like Ukraine, or to buyers offering better terms, but it comes at a steep economic cost (building all that redundant capacity), and the end-buyers are, and will certainly remain, for the medium-term, heavily regulated and low-growth. Worse, in the late-medium to longer term, there is the potential for further development of LNG regasification terminals and even indigenous shale gas in many of Gazprom's European customers. An agreement with China on pricing for gas delivered through the Power of Siberia pipeline will be no small achievement, and will bolster the potential of the eastern Siberian fields, such as Kovytko, even as the western Siberian fields enter their decline. But it is unlikely that Russia intends for eastern Siberia to be locked in at the (inevitably) discounted long-term Chinese pipeline price. And, indeed, Power of Siberia terminates in the port city of Vladivostok. Not coincidentally, plans for an LNG liquefaction plant in Vladivostok are already underway.

What is the role of LNG in the mix?

Currently, there are two significant LNG projects being considered on the Yamal Peninsula (in northwest Siberia): Shtokman and Yamal LNG. The developers of Shtokman are a consortium that originally consisted of Gazprom, Total and Norway's Statoil. At some 600 kilometers north of the Kola Peninsula in the Arctic Ocean, the Shtokman field is estimated to contain an astonishing 3.8 trillion cubic meters of gas, but it will require significant investment and cutting-edge technology in offshore arctic conditions. The three Shtokman joint venture partners could not agree on a final investment decision because the shale gas boom in the U.S. dramatically changed the economic assumptions of the project. Initially, some of the gas from the Shtokman field was to go in a pipeline to Europe, and the rest would be feedstock for the LNG liquefaction facility with the likeliest destination for sales being Texas. Even at the outset, however, the parties considered shipping LNG across the newly open water passage in the Arctic Ocean, through the Bering Strait (past Alaska) and on to China, Japan and South Korea. When the price of gas fell precipitously in the U.S., the partners delayed the project and last year Statoil wrote off its investment in the project and transferred its share back to Gazprom. Significantly, Statoil recently mooted the idea that it might be interested in rejoining the Shtokman project, but only on the condition that the pipeline portion of the project be abandoned, and all of the project's gas be sold as LNG.

The Yamal LNG project is actually an umbrella covering several gas fields both onshore and offshore of the Yamal Peninsula. The largest of those gas fields, the Bovanenko field, is estimated by some analysts to contain even more gas than Shtokman.

These huge Arctic gas fields, and the large eastern Siberian fields such as Kovytko, are absolutely key to Gazprom's, and indeed Russia's, future financial health, as the traditional western Siberian fields gradually decline. But as Statoil's recent proposal underlines, these resources will be difficult to finance, much less capture new market share, as pipeline feedstock. Although a pipeline can be a natural monopoly, it can also be a natural monopsony (market dictated by the buyer, rather than the seller). Russia needs to be able to access the global gas market, and it needs to do so quickly, before (for example) the U.S. or other western hemisphere gas producers capture market share. This is the rationale for Russia to move expediently to build LNG infrastructure, such as Shtokman, the Yamal LNG project, the proposed Vladivostok project and others.

This build-out of LNG capacity is already detectable. For example, Rosneft and Exxon announced a study for a 5 million ton per year (USD 15 billion) LNG liquefaction plant for the Sakhalin 1 Project, which would be specifically oriented to the east Asian market. This would compete with Gazprom's stake in the Sakhalin 2 LNG plant, and the planned LNG plant in Vladivostok. In addition, the Rosneft/Exxon LNG plant could be expanded to liquefy and ship volumes from the Sakhalin 3 and Sakhalin 5 blocks. In fact, Rosneft is already reported to be in talks with a South Korean company to build a fleet of LNG vessels.

This competitive approach to LNG is also a new phenomenon; at this writing Russian law only permits one company — Gazprom — to export LNG.

Clearly anticipating that the law will be changed, Rosneft recently announced a joint project with Exxon for an LNG plant in Alaska, to help Rosneft acquire industry know-how.

Meanwhile, the Obama administration recently approved the Freeport LNG project in Texas, for export to the east Asian market, and it has been reported that the owners are in talks with Japanese utilities as offtakers. There are a further 19 applications for free (i.e. to east Asia) export of LNG pending with the U.S. Department of Energy; while it is not likely that all will be approved, even half would constitute a serious shift in the east Asian gas market.

Russia still has time to develop its own LNG capabilities and to secure east Asian gas market share, but it cannot afford undue delay. Rosneft and Gazprom's recent competitive activity in this sector suggests that the Russian energy pivot to the east is now well under way. This pivot will challenge both companies, and Russian energy policy makers, but will create significant opportunities not only for the consumers and producers but for a host of companies involved in the design, build-out and operation of the substantial infrastructure required for such a pivot to succeed.

—By Shane R. DeBeer, Dechert LLP

Shane DeBeer is a partner in the Moscow and London offices of Dechert.

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