

## **“LNG is HOT”**

### Examining the Russian Liquefied Natural Gas Market\*

Russia, a net importer of liquefied natural gas (“LNG”)<sup>1</sup> until 2004, is rapidly becoming one of the largest producers and net exporters of LNG in the world. Driving this rapid growth are: (i) huge domestic reserves of natural gas (estimated to be 30% or more of global supply), (ii) increased demand fueled by declining natural resources in gas-consuming countries, (iii) technological advancements in exploration, production, transportation and storage of LNG, and (iv) improved relations with western energy companies and capital sources, particularly in the United States and Great Britain. At the heart of the Russian LNG market is the state-controlled natural gas giant OAO Gazprom (“Gazprom”), which by any measure is shaping the LNG global marketplace.

Gazprom’s entry into the LNG market should come as no surprise. Gazprom’s reserves and untapped supply of natural gas have been the envy of the world, leaving only the challenge of delivering that supply to customers. Until recently, however, the price point for LNG was too steep. Now, with the advent of modern shipping and storage capabilities, LNG is more cost effective. Transported by specially designed cryogenic sea vessels and road tankers and stored in specially designed tanks, and with a relative volume of less than two-tenths of one percent of natural gas, LNG has become much more cost effective to transport over long distances where pipelines are shut down, do not exist or otherwise are curtailed by capacity. These advancements and cost reductions mean that LNG has become cost-effective for those countries with few other choices – such as Japan – and also for those countries seeking to attain a strategic balance of fossil-fuel supplies – such as the United States. With this in mind, Gazprom and other Russian producers have mounted a full scale assault on the global LNG Market.

### **Russian LNG Projects Under Development**

The Russian LNG market is developing rapidly and new projects continue to be proposed. Four projects are particularly noteworthy.

The “Sakhalin II” project (located on Sakhalin Island with annual production capacity of 9.6 million tons of LNG), is based on a production sharing agreement that is currently allocated 55% Shell, 25% Mitsui and 20% Mitsubishi. As reported last year, Gazprom signed a Memorandum of Understanding in July 2005 to acquire a 25% interest from Shell through a swap agreement for a 50% interest in the Zapolyarnoye field. However, as of mid-September 2006, the swap has not yet occurred and press reports indicate that Gazprom is seeking to

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<sup>1</sup> LNG is a derivative of natural gas, processed to remove impurities and heavy hydrocarbons and then condensed into a liquid at almost atmospheric pressure by cooling it to approximately (-163) degrees Celsius.

renegotiate the swap terms in light of revised increased cost projections for the project.<sup>2</sup> Sakhalin II's licenses have also come under pressure from Government agencies over alleged environmental problems.<sup>3</sup> Despite delays, Sakhalin II can be credited for putting Russian LNG "on the map." Nearly all of its capacity has been pre-sold, and the project has been expanded to include Russia's first offshore gas production platform. As currently being developed, Sakhalin II is expected to be the primary source for LNG exports to Korea and Japan.

Shtokman field in the Barents Sea is another Gazprom LNG project attracting international attention. With gas reserves estimated at 3.2 trillion cubic meters, Shtokman field is being developed primarily for LNG export to the United States. Preliminary agreements have been signed with ChevronTexaco, ConocoPhillips and ExxonMobil. Shtokman field is particularly attractive to Western companies due to its proximity to Snovit field (a Norwegian-developed LNG project), which provides an operational benchmark for the Shtokman field and some joint venture opportunities. Norwegian and Russian producers have been actively pursuing joint development opportunities for these projects.

Ust-Luga, along the Baltic Sea near St. Petersburg, is another offshore Russian LNG project designed to supply North America. Developed as a joint venture between Gazprom and Petro-Canada, Ust-Luga is Canada's attempt to enter the burgeoning Russian LNG market. As currently planned, LNG would be shipped from Ust-Luga to a regasification plant in Quebec, where pipelines would then distribute the gas across Canada and into the United States. The two groups have also discussed developing other LNG projects along the Yamel peninsula, which would allow Petro-Canada to tie into additional onshore production capacity.

Finally, a joint venture between Russian oil giant Lukoil and ConocoPhillips (which recently acquired a 11.3% interest in Lukoil) is developing an LNG project that would also tap into existing reserves along the Yamel peninsula. For ConocoPhillips, as an active developer of regasification plants in the United States, Russian LNG projects allow them to capture value not only as producers, but transporters and processors as well.

### **Understanding the Russian Market**

These four projects make it clear that Western companies are major players in the developing oil and gas industry in Russia. Any investments in oil and gas projects, and in LNG in particular, face the usual panoply of risks encountered in the development of projects worldwide, including technological and environmental considerations, access to available infrastructure and the vagaries of world supply and demand and the resulting price fluctuations. Companies involved in the Russian market are mindful, as well, of the unique risks facing them.

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<sup>2</sup> "Sakhalin II: The Russians Play Hardball with Royal Dutch Shell," by John Donovan, Indymedia Ireland, September 6, 2006; "Russian Environmental Agency Asks Court to halt Sakhalin-2 Energy," by Stephen Boykewich, Yahoo! News, September 5, 2006.

<sup>3</sup> Some press reports suggest that the license issues are timed to add pressure to the renewed negotiations by Gazprom. See footnote No. 2 above. Also, "Russia Cancels Shell Permit, May Seek Better Deal," by Greg Walters, The Wall Street Journal, September 15, 2006.

For regulated industries, such as energy, it is important to have a good working relationship with the relevant Federal agencies. In addition, prudent investors should develop relationships at the local government levels, where officials are often eager to grow tax revenues. For significant investments, it is “best practices” also to meet with local parties who might have an interest in the project, such as the governor of the region and leaders of the local community in which the project will operate.

Because of the complexities of many of these issues it is necessary, particularly in large-scale projects, to have partners with strong connections to the government and the local business community. In fact, Russian government officials have stated that Russia does not intend to grant licenses for strategic deposits unless the developer is majority controlled by Russian companies. In the energy sector (representing as much as 70% of Russia’s gross domestic product) consolidation and growth have narrowed the field of potential partners. While Gazprom has historically enjoyed a near monopoly on gas production and reserves and in the gas transport system, major Russian oil companies such as Rosneft and Lukoil now have the asset base and access to capital to take the lead on major projects. In the aftermath of the purchase by Rosneft of the major production arm of Yukos Oil Company (Yuganskneftegaz), Rosneft was successful in raising more than \$10.4 billion in an initial public offering on the London Stock Exchange earlier this year.

The Russian legal system can best be described as a “work in progress.” Compared to the mid-90’s, the Russian legal system of the mid-2000’s can boast of many effective and sophisticated laws. Nonetheless, there is little meaningful track record in the application of those laws, and many prospective investors are concerned with reported difficulties associated with obtaining and enforcing judgments. While it is possible for foreign investors to obtain effective redress in the Russian courts and arbitration tribunals, there is no substitute for proper planning on the front end, recognizing the merits and limits of the development of Russia’s legal foundation, including the need to assemble an experienced team, and planning for contingencies that will inevitably occur. Initial considerations should include entity selection (on-shore or off-shore; or contractual relationship only), investment type (debt, equity, hybrid), and the means for repatriating profits or income (dividends, royalties, license fees, payments for goods and services).

The above issues are generally applicable to all large-scale investments in Russia. Additional risks associated with the Russian LNG market can be broken down into three categories: (i) climate and remoteness of fields, (ii) an evolving regulatory framework, and (iii) competition in the global markets. Poor climate and remote operations make exploration and production of Russian LNG fields difficult, time consuming and expensive. Energy companies are accustomed to budget adjustments and logistical challenges, but Shell’s recent \$10 billion budget increase at Sakhalin II clearly illustrates the problem. Russia’s regulatory framework is another obstacle that must be overcome, since the laws that govern Russia’s LNG production and trade are currently dispersed among at least a half a dozen major items of legislation and there is every reason to expect continuing evolution; moreover, the overriding characteristics of these laws is that they are frequently duplicative, sometimes contradictory, in several places incomplete, and often times inconsistently applied. Finally, Russia’s late entry into LNG exports is a matter that will have to be overcome by proof that Russia is able to be a reliable long-term source of supply at contracted prices.

Russia now stands poised to take center stage in the global LNG marketplace. Despite clear advantages (robust market, Western partners, unmatched reserves), however, questions still remain as to when (or whether) Russia will fully reach its potential in the LNG trade. Recent challenges (most notably Sakhalin II, but others as well) demonstrate that progress will not always be smooth and uninterrupted. However, the impressive strides that Russia has taken in the short time since the dissolution of the Soviet Union suggest that this is a marketplace that cannot be ignored.