

CENTRE FOR RUSSIA AND EURASIA

ENERGY PROGRAMME

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SHTOKMAN FIELD

1. Field and significance

The **Shtokman field** (Russian: Штокмановское месторождение) named after the Soviet geophysicist Vladimir Shtockman, is one of the world's largest natural gas fields. It lies in the Russian sector of the Barents Sea, 550 km away from the northeast coast of Murmansk, in a depth of 200 - 400 metres. Its gas reserves are estimated at 3.2 – 3.7 trillion m³ of natural gas and more than 31 million tons of gas condensate. Practically, this means that it can sufficiently cover the gas needs of the EU for a period of seven years, while the respective reserves in Canada equal only the half. The discovery of the field was realized in 1988, but the deep depth of the sea and the permafrost of the region impose significant technical barriers on the exploitation process necessarily asking for the know-how of the western foreign companies.

The current project concerning the exploitation of the Shtokman field is expected to produce 22.5 bcm of natural gas and 205,000 tons of gas condensate annually. At a later stage, the production is expected to increase up to 70 bcm of natural gas and 0.6 million tons of gas condensate. All extraction facilities will be probably located under water. The development costs are estimated at \$15 to \$20 billion. The above predictions reveal the vast multi-level significance of Shtokman field.



Picture 1 – Geographical position of the Shtokman field (www.rigzone.com)

Shtokman Field

On September 2006, Gazprom completed drilling of appraisal the well No. 7¹ in the field region, and expects the gas production to be running by 2013-2015. Voices expressing a different view have however been heard: The Norwegian environmental group Bellona² had claimed that Shtokman field will probably not be on stream before 2035, due to the fact that Gazprom lacks expertise to develop the field by itself. In addition, due to the ever-increasing global warming, vast icebergs³ are expected to be unleashed into the Arctic creating an additional problem to the field development as platforms would need to be impervious to icebergs As for LNG (Liquid Natural Gas), its production will be delayed until 2014 and the LNG plant will be laid most likely in by the village of Teriberka⁴, about 100 km north-east of Murmansk.

2. Exploitation and foreign companies

The field is owned by the Russian gas company Sevmorneftegaz⁵, a Gazprom's subsidiary (owned 100% by the latter), having the licence to explore the region, produce gas and retain all marketing rights for the hydrocarbons of this Arctic field. For the design and construction of the field infrastructure, including a production complex, a pipeline network and an LNG plant, Sevmorneftegaz is exclusively in charge. What is more, the Shtokman development process was primarily supposed to involve state-of-the-art technologies and technical know-how. International

¹Well number seven is located 550 km from the Kola Peninsula and is in approximately 340 meters of water. For more details, Oilvoice (2006), 'Gazprom Sub and Hydro Begin Drilling Shtokman Field Well' at www.oilvoice.com/Gazprom_Sub_and_Hydro_Begin_Drilling_Shtokman_Field_Well_/6929.htm (accessed: 4 November 2007)

²See: Upstreamonline (2007) 'Shtokman won't be on stream until 2035', at www.upstreamonline.com/live/article131366.ece (accessed: 5 November 2007)

³Upstreamonline (2007) 'Iceberg threat looms over Shtokman', at www.upstreamonline.com/incoming/article132282.ece (accessed: 8 November 2007)

⁴LNG terminal for the Shtokman field will be constructed by the village of Teriberka, north-east of Murmansk city. Last year, though, Gazprom announced that it intended to build the plant by the town of Vidyaevo, but the Russian naval base in the region shifted the interest in Teriberka, whose citizens have to officially consent with the project plans. For more details, Barentsobserver (2007) 'Gazprom changed site for planned Shtokman LNG plant', at <http://www.barentsobserver.com/gazprom-changed-site-for-planned-shtokman-lng-plant.527709-28235.htm> (accessed: 4 November 2007)

⁵ The license of the field was primarily credited to another Gazprom's subsidiary, the Rosneft Purneftegaz.

Shtokman Field

companies were therefore invited for these purposes as contractors, with strict compliance with work deadlines and costs to be a critical contract clause. Despite the incessant dialogue with the foreign gas companies for the cooperation in the development of the field since 2005, it was finally decided on October 2006 that Gazprom will develop the field by itself, and foreign companies would be considered only as subcontractors.

In detail, during the period 2004 - 2005 Gazprom signed nine memoranda⁶ with prominent energy companies that had provided their joint project plans in relation to the development of the Shtokman field. After having examining meticulously these offers and plans, Gazprom announced on 16 September 2005 a short-list of companies eligible for detailed commercial talks about the Shtokman project. The foreign companies Statoil and Hydro (Norway), Conoco Philips and Chevron (USA) and Total (France) shared the same chances to participate in the whole exploitation venture along with the Russian Sevmorneftegaz, in a percentage of 49%. The expected agreement would have been announced in 2007 and would have included the conditions under which the exploitation and the technical support of the west foreign companies (including infrastructure) would have been implemented. According to the agreement, the distribution of the gas in the different markets would be achieved through a network of pipelines, which would transfer the gas in North Europe: a sub sea pipeline of 650km (the Nord Stream pipeline) would reach Terebelka, and via Kola Peninsula, another pipeline of 1500 km would reach Baltic coast and Germany. Since 2000, was also decided that LNG would be pumped into USA market, due to the geopolitical changes marked by Putin's election and 9/11, signalling a period of closer diplomatic relations between Kremlin and Washington DC.

Despite the ongoing talks, on 9 October 2006, the President of Gazprom, Alexei Miller, announced that Shtokman field would be exploited only by Gazprom after an agreement with Sevmorneftegaz, as international companies had failed to provide assets corresponding by size and quality with Shtokman's reserves. In addition, experts claim that the cooling of political relations between Russia and USA, along with the Kremlin's unwillingness to share Russia's natural resources influenced

⁶Gazprom (2006) 'Shtokman Project', at www.gazprom.com/eng/articles/article21712.shtml, (accessed: 3 November 2007)

Shtokman Field

Gazprom's decision in a negative way. Another important statement of that day was that gas from Shtokman would go primarily to Europe by pipeline - instead of by tanker in the form of liquefied natural gas to the U.S.⁷, as had been originally proposed. Miller clearly highlighted that the gas will be used to feed the Nord Stream pipeline, which is being built from the Russian town of Vyborg across the Baltic Sea to Germany. Therefore, the contribution of European foreign companies would be only limited to technical support and infrastructure, while USA was excluded from the Shtokman field.

3. Latest developments

Taken that the Russian energy company lacks the offshore expertise to go to the exploitation process alone, securing foreign participation, even in the form of subcontractors, is of immense importance to Gazprom, which would attract better technologies and improve the overall management of the project. In this context, a framework agreement⁸ was signed (13 July 2007), among Gazprom (Alexander Ananikov), Sevmorneftegaz (Yury Komarov) and Total (Christophe de Margerie). Gazprom and Total will establish a special company (Shtokman Development Company or Special Purpose Vehicle - SPV)⁹ charged with the design, financing, construction and operation of the Shtokman phases one infrastructure. According to Alexei Miller¹⁰: *“There exists an opportunity to include one more or several foreign partners with an additional stake up to 24 per cent, due to possible reduction of the*

⁷Newswires Jones Dow and Walters Greg (2006), ‘Gazprom Rejects Foreign Partners for Shtokman’, at www.rigzone.com/news/article.asp?a_id=36922 (accessed: 8 November 2007)

⁸For details on the agreement, Kramer E. Andrew (2007) ‘French Oil Giant Agrees to Work on a Russian Natural Gas Project’, The New York times, July 13, 2007, section: World Business. Also, Oilvoice (2007) ‘Gazprom and Total sign a Framework Agreement for Cooperation in the First Phase of Shtokman Development’, at http://www.oilvoice.com/n/Gazprom_and_Total_sign_a_Framework_Agreement_For_Cooperation_in_the_First_Phase (accessed: 2 November 2007) and Gazprom (2007), ‘OAO Gazprom and Total S.A. sign agreement on main conditions of cooperation at first phase of Shtokman filed development’, at <http://www.gazprom.com/eng/news/2007/07/24577.shtml>, (accessed: 7 November 2007)

⁹For SPV: Socor Vladimir (2007), ‘Shtokman Gas deal: an initial assessment of its implication’, at http://www.jamestown.org/edm/article.php?article_id=2372294 (accessed: 7 November 2007)

¹⁰Gazprom (2007) ‘Gazprom chooses French Total as partner for initial phase of Shtokman field development’, at www.gazprom.com/eng/news/2007/07/24558.shtml (accessed: 2 November 2007)

Shtokman Field

Gazprom involvement. In any case, Gazprom will retain control over no less than 51 per cent of the shares in the special-purpose company as well as 100 per cent of the shares in the company - owner of the field license, and will also be the owner of the whole amount of hydrocarbons to be extracted". Therefore, Total will bear all financial, geological and technical risks related to the production activities, having a share of 25% in this company, while it would be possible for other foreign companies to take another 24% of the stake. Total will not own the gas produced nor have any right of initiative or saying on the final disposal of the gas.

On 25 October 2007, another framework agreement¹¹ was signed between Gazprom and StatoilHydro giving to the latter the remaining 24% of the shares. Alexei Miller stated once more that: *"We have giant reserves of gas in the Barents Sea, while our partners from Norway have good experience in production and transportation of gas in harsh Arctic conditions. Our joint efforts will be the keystone of success in the Arctic"*. For once more, it becomes obvious that the know-how of the Western foreign companies plays an essential role in the exploitation process in the Shtokman field. A prerequisite for the participation of Total and StatoilHydro in the project is to pay 800 million USD in advance. Gazprom will control the Shtokman Development Company (SDC) with its 51 percent of the shares, while Total and StatoilHydro will be junior partners. Several Gazprom officials¹² confirm that StatoilHydro will have less rights in the company management bodies than Total. This special company will own infrastructure (this includes offshore installations,

¹¹ The agreement gives Statoil a 24% equity interest in Shtokman Development Company, while Gazprom (51%) and Total (25%) are the two other partners. For more details, Barentsobserver (2007) 'Gazprom picks StatoilHydro for Shtokman', at <http://www.barentsobserver.com/gazprom-picks-statoilhydro-for-shtokman.550854-28235.html>, (accessed: 3 November 2007), Barentsobserver (2007) 'StatoilHydro will not reveal Shtokman details', at <http://www.barentsobserver.com/statoilhydro-will-not-reveal-shtokman-details.552107-28235.html> (accessed: 3 November 2007), Oilvoice, 'StatoilHydro Signs Shtokman Agreement with Gazprom', at http://www.oilvoice.com/n/StatoilHydro_Signs_Shtokman_Agreement_with_Gazprom/KEVDBo78.aspx, (accessed: 1 November 2007)

¹²Sergey Pravosudov from the Institute of National Energy claims that Gazprom is likely to have chosen the Norwegian StatoilHydro, and not the other main contender ConocoPhillips, because of the vital importance of the Norwegian technology at this stage of field development. He believes the Americans will be included in the project at a later stage when the LNG is to be exported. For more details, Barentsobserver (2007) 'Shtokman company in the making', at <http://www.barentsobserver.com/shtokman-company-in-the-making.551521-28235.html> (accessed: 2 November 2007)

Shtokman Field

pipeline to shore and the onshore processing plants for both liquefied natural gas (LNG) and piped gas), for 25 years from field commissioning. The relationship between the SPV and Sevmorneftegaz will be based on a contract. Whether or not Total and StatoilHydro will get a share of the Shtokman gas is to be seen. Gazprom supports that all the gas will remain under its property, while representatives of Total claim that after 2009, 150 billion cubic meter of gas will be registered on their account. The implementation of the project is subject to a final investment decision also in the second half of 2009.

4. Russia's energy diplomacy

It becomes clear from the above that during the last years Moscow has fully exploited its energy diplomacy card via Shtokman field in its dealings with the West, in order to promote the country's national interests. Scrapping and reviving talks according to the political climate favouring either Europe or North America seems to have become Russia's prevalent tactic.

In detail, before a cooling in American - Russian relations in 2006, the Shtokman field had been the centerpiece of a continuing effort by the Bush administration to encourage direct Russian oil and natural gas shipments to the United States, as a method of diversifying supplies away from the Middle East. A mutual approach on the matter had been forged from the side of Kremlin, as well. For example, the Russian Industry and Energy Minister Viktor Khristenko had expressed a strong preference for US market as far as the field's gas disposal was concerned: *"I think two or three companies should be chosen in the end [for Shtokman] and the selection will largely depend on how effective their programs are for long-term presence on the American market", because "the first phase of the Shtokman project will target the US market only"*. A year later, the interest of Gazprom shifts towards European markets as Gazprom announces that Shtokman gas would now be channelled mostly through the North European Gas Pipeline that is being constructed under the Baltic Sea with German collaboration, rather than shipped as liquefied gas to the US as originally planned. Probably the USA encouragement of the anti-Russia policies of the Georgian leader Mikhail Saakashvili or the deployment of elements of the US national – defence missile system in Poland and the Czech Republic or even the overall hostile policies of the Bush administration towards Russia led to such a

decision. What is undoubted though is that Gazprom hits US interests hard as the participation in the project would have been a highly profitable business for US oil majors. The Gazprom decision reflects at the same time the mood in Moscow not to cave in to US pressure, while a new balance is formed in the world arena; a “new axis in Europe to oppose US hegemony” is created consisting of Russia - Germany - France.

Russia aims at the creation of this trilateral cooperation, actually forging "flexible alliances" with countries of Old Europe, something that should really raise USA's concerns. The North American energy – security issue also asks for attention, as it will soon loom in the horizon, especially if Russia stays focused on the markets in Europe and the Far East. European market seems like a wisely picked destination for Shtokman's field gas production; EU's policy of tough restrictions on greenhouse - gas emissions under the Kyoto Protocol, as well as the inability of renewable energy resources to compete with traditional sources, will certainly cause an increase in natural - gas consumption in Europe. Forecasts¹³ for 2020 show that the EU's dependence on natural gas will grow from its present 40% to 70-80%, and Russian gas exports to the EU in the same period will increase from 26% at the moment to 40-50%. Such an economic dependence paves the way for an increased political interaction between European countries and Russia. However, questions concerning the dispute created between the European defenders of Russian cooperation (such as Germany, France, Austria, Italy) and the traditional USA supporters in the EU (such as UK, Spain, Poland, Ukraine etc) need to be answered. The issues of transparency and free access to the Russian market have also drawn EU's attention, as a satisfying solution should be reached between EU and the world's most important energy power, Russia.

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¹³Bhadrakumar K M, (2006), ‘Russian energy: Europe's pride, US's envy’, at http://www.atimes.com/atimes/Central_Asia/HJ14Ag01.html (accessed: 7 November 2007)