RUSSIA'S PROJECTS AND INVESTMENTS IN CENTRAL ASIA: THE OIL AND GAS INDUSTRY

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In the 1990s, Russia's projects and investments in the Central Asian oil and gas industry were mainly concentrated in Kazakhstan, while its interest in other states of the region were minimal. When Vladimir Putin became Russian president in 2000 and the price of hydrocarbons steadily rose, Central Asia's importance abruptly increased. This caused the Russian Federation and Russian oil and gas companies to drastically step up their activity not only in Kazakhstan, but also in Turkmenistan and Uzbekistan. Russia has also started to show a much greater interest recently in two other states—Kyrgyzstan and Tajikistan—despite their low oil and gas potential.

Moscow's growing interest in Central Asia was largely explained by the fact that the conditions in the region make hydrocarbon production technologically easier and economically more profitable than in the north of Russia, where most of the Russian oil and gas fields are concentrated. The Russian Federation is trying to draw as many of Central Asia's hydrocarbon resources into its fuel and energy balance as possible in order to maintain domestic consumption without lowering the volumes of hydrocarbon export to the foreign markets, particularly to Europe.

This has resulted during the past few years in a gradual increase in the volumes of hydrocarbon export from the region to Russia. But the future plans of Russia, Kazakhstan, Turkmenistan, and Uzbekistan could make significant adjustments to this trend as their own oil and gas industries grow and energy strategies are elaborated. This is mainly due to the fact that it is far from clear whether oil and gas export from the region's

states will continue to be distributed in favor of the Russian Federation or, on the contrary, everything will become gradually reoriented toward markets outside Russia and the post-Soviet expanse. Nor is it clear whether cooperation in the deeper conversion of oil and gas will be expanded between Russia and the region's countries. The latter is extremely important since in Soviet times, for example, it was precisely refining that determined the large (approximately four-fold greater than today) volumes of reciprocal deliveries of this so-called black gold.

So the main problem consists of two essential elements: the unpredictability of the future nature of oil and gas export from Central Asia and interstate cooperation between the Russian Federation and the region's countries in oil and gas processing. On the one hand, the current (and in particular planned) volumes of hydrocarbon production and export in the region (and in Russia itself) could perpetrate a breakthrough in these cooperation areas. On the other hand, it is not clear whether such a major change in energy strategies is actually possible.

So an analysis of the current nature of Moscow's project and investment activity in Central Asia's oil and gas industry will make it possible to better understand the answers to extremely difficult questions regarding not only the prospects of Russian-Central Asian energy cooperation itself, but also the development of the entire post-Soviet expanse.

Today Russia's strategic interests largely lie in the three Central Asian states that possess hydrocarbon resources: Kazakhstan, Turkmenistan, and Uzbekistan. Hydrocarbon recoverable reserves have still not been found in two other countries of the region—Tajikistan and Kyrgyzstan—and so Russia has little interest in their production and import and is mainly focusing its attention on assimilating the petroleum products market.

At the beginning of 2008, the total volume of Russian investments in Central Asia's oil and gas industries amounted to between 4 and 5.2 billion dollars.[1] The overwhelming majority of investments (around 80-85%) is concentrated in Kazakhstan (approximately between 3.4 and 4.1 billion dollars), less in Uzbekistan (between 0.5 and 1 billion dollars), and a very insignificant amount in Turkmenistan, Tajikistan, and Kyrgyzstan (a total of approximately 50 million dollars). In the next five years, Russian companies intend to invest between approximately 14 and 16 billion dollars mainly in exploring and developing oil and natural gas fields in Central Asia, as well as in the region's pipeline infrastructure.

[1] The evaluations are estimates obtained on the basis of published information on the investment volume for each project in each of the region's countries.

Kazakhstan

At present, such Russian companies as LUKoil Open Joint-Stock Company (OJSC), Gazprom OJSC, and Rosneft National Company OJSC are actively operating in the republic. At the beginning of 2008, the volume of accumulated Russian investments in Kazakhstan's oil and gas industry amounted to between about 3.4 and 4.1 billion dollars. Until 2012 inclusively, the Russian Federation is planning to invest another 6.7 to 7.5 million dollars. These resources are mainly to be invested in projects designed to carry out geological exploration and development of upside oil and gas fields (primarily on the shelf of the Caspian Sea), as well as in enhancing the pipeline system.

Geological Exploration and Field Development Projects

Developing the Karachaganak Gas Condensate Field (West Kazakhstan Region, northwestern part of Kazakhstan). This field is one of the largest in the republic: proven reserves amount to

approximately 1.35 tcm of natural gas and 1.2 billion tons of oil. The companies of several countries began developing this structure in 1997 and will continue operating there until 2037. Russia's LUKoil owns 15% (750 billion dollars).

Development of the Kumkol Severny Oil and Gas Field (Kzyl-Orda Region, central part of south Kazakhstan). The field's oil reserves are evaluated at 42 million tons and gas reserves at 4.5 bcm. The structure has been developed since 1996 by the Turgai-Petroleum Closed Joint-Stock Company (CJSC) (until 2000 by Kumkol-LUKoil CJSC), which is owned under parity conditions by Kazakh-Chinese PetroKazakhstan[2] and LUKoil.

Development of the Severnye Buzachi Oil Field (Mangistau Region, western part of Kazakhstan). The oil reserves of this field, which went into operation in 1999, are evaluated at approximately 80 million tons. Since 2003, this structure has been owned under parity conditions by Canada's Nelson Resources Company and the Chinese National Oil Corporation (CNOC). In 2005 LUKoil purchased 100% of the shares of Nelson Resources for 2 billion dollars.

Development of the Alibekmola and Kozhasai Oil and Gas Condensate Fields (Aktiubinsk Region, northwestern part of Kazakhstan). The oil reserves at these fields are estimated at 70 million tons and the gas condensate reserves at around 13,000 tons. The structures have been developed by the Kazakhoil-Aktobe State Kazakhstan Company: Alibekmola since 2001 and Kozhasai since 2003. As early as 2000, Kazakhoil-Aktobe sold 50% of its assets in the development of these fields to Nelson Resources, which has been a subsidiary enterprise of LUKoil since 2005.

Development of the Karakuduk Oil Field (Mangistau Region, western Kazakhstan). The oil reserves at the field are estimated at approximately 45 million tons. It has been developed since 2000 by Karakudukmunai CJSC (100% subsidiary enterprise of LUKoil).

Geological Exploration and Subsequent Development of the Tiub-Karagan and Atashskaia Oil and Gas Condensate Fields (central part of the Kazakhstan section of the Caspian Sea shelf). The oil reserves (including gas condensate) at the Tiub-Karagan field are estimated at 324 million tons of standard oil and at the Atashskaia field at 249 million tons. The project is being implemented by LUKoil along with the Kazakhstan Sea Oil Company KazMunaiTeniz (100% subsidiary company of KazMunaiGaz) between 2003 and 2043. There are plans to drill the wildcat wells at the structures between 2008 and 2010.

Geological Exploration and Subsequent Development of the Kurmangazy Oil and Gas Condensate Field (southern part of the Kazakhstan section of the Caspian Sea shelf). The estimates of oil and gas condensate reserves at the field vary greatly from 500 million tons to 1.8 billion tons. Rosneft, in cooperation with the Kazakhstan Ministry of Energy and Mineral Resources, began operating at this field in 2005 and will continue to work there until 2060. There are plans to drill the wildcat wells at the structure before 2012.

Geological Exploration and Subsequent Development of the Zhambai Oil and Gas Field (on the Caspian Sea shelf). Oil and gas reserves are still not known. In 2006, an agreement was signed stipulating that KazMunaiGaz will transfer a 25% share of the project to LUKoil and Spain's Repsol. Seismic survey was carried out at the field until 2007 inclusively, which is now being followed by analytical work. In 2008-2009, there are plans to carry out preparatory work and drill the wildcat well.

Preparations for Geological Exploration and Subsequent Development of the Imashevskoe Gas Condensate Field (Atyrau Region, western part of Kazakhstan and the Astrakhan Region, Rus-

[2] Until 1996, PetroKazakhstan was the State Iuzhneftegaz Company established in 1993. In 1995, LUKoil and Iuzhneftegaz created the Kumkol North development joint venture. In 1996, Canada's Hurricane Hydrocarbon Company acquired 89.5% of the shares of Iuzhneftegaz, after which this company was renamed PetroKazakhstan. At present, PetroKazakhstan belongs to China's PetroChina and KazMunaiGaz.

sia). The field's reserves are estimated at 129 bcm of natural gas and 21 million tons of gas condensate. Work at the structure should begin in the very near future. On the Kazakh side it will be carried out by KazMunaiGaz, while on the Russian side the developer (subsoil user) has still not been determined.

Preparations for Geological Exploration and Subsequent Development of the Khvalynskoe and Tsentralnoe Oil and Gas Fields (north Caspian, Russian and Kazakh sections of the shelf). The hydrocarbon reserves of the Khvalynskoe field are estimated at 480 million tons of oil equivalent, including 300 million tons of oil, and of the Tsentralnoe field at 522 million tons of oil and 92 bcm of casing head gas. Work is not yet being carried out at the structures but should begin in the near future. On the Kazakh side, it will be carried out by KazMunaiGaz. On the Russian side, LUKoil will carry out the work at the Khvalynskoe field, and LUKoil and Gazprom at the Tsentralnoe structure.

Hydrocarbon Processing Projects

Joint Processing of Gas and Gas Condensate at the Orenburg (Orenburg, Russia) **Gas Processing Plant** (GPP). In October 2006, an intergovernmental agreement was signed between Russia and Kazakhstan on creating a joint venture for processing gas at this GPP. The project is being carried out by Gazprom and KazMunaiGaz. In 2007, a buy-sell agreement was signed for delivering hydrocarbons from the Karachaganak field to the Orenburg GPP for 15 years (from 2007 to 2022). It is expected that gas will be processed at a level of 8 bcm until 2010, 12 bcm will be processed in 2011, and no less than 15 bcm a year beginning in 2012.

Preparations for Building a Caspian Gas Chemical Complex (GCC) **in the Zone of the Khvalynskoe Oil and Gas Field** (Atyrau Region, western part of Kazakhstan). A working group of KazMunaiGaz and LUKoil representatives has been created for implementing the project in 2006. There are plans to process approximately 14 bcm of gas every year at the GCC. Talks are being held to discuss Russia's and Kazakhstan's shares in the project as well as the deadlines for its implementation.

Pipeline Projects

Preparations for Increasing the Throughput Capacity of the Atyrau-Samara Oil Pipeline.[3] This project is being implemented on the basis of an intergovernmental agreement signed in 2002 between Russia and Kazakhstan. The KazTransOil National Oil Transportation Company CJSC is the pipeline operator in the Kazakh section and Transneft OJSC is the operator in the Russian section.

By 2017 (when the oil transit agreement expires), Russia and Kazakhstan plan to increase the pipeline's throughput capacity from the current 15 to 25 million tons a year. At present, the conditions and provisions of a packet agreement for increasing the pipeline's capacity are being drawn up. It is presumed that some of the oil (around 17 million tons from Kazakhstan alone) will go through the planned Burgas-Alexandroúpolis (Bulgaria-Greece) pipeline, which bypasses the Turkish straits.

Plans to Increase the Throughput Capacity of the Tengiz-Novorossiisk Oil Pipeline.[4] The pipeline operator is the Caspian Pipeline Consortium (CPC). The Russian Federation's share in the

[3] Oil is being transported along this 697-kilometer pipeline put into operation in 1970 from the fields of the western part of Kazakhstan to Russia's Samara Region.

[4] Oil is transported via this pipeline, which was put into operation in 2001 (it is approximately 1,510 km long), from the western part of Kazakhstan (the Tengiz field) to the Russian port of Novorossiisk (and on by tankers through the Turkish straits—the Bosporus and Dardanelles).

CPC amounts to 24% (625 million dollars), while Russian companies hold another 20% (520 million dollars).[5] Russia and Kazakhstan are planning to increase the throughput capacity of the pipeline from the current 32 to 67 million tons a year (including Kazakh oil to 50 million tons). But the prospects and time limits for implementing the project to raise the pipeline's throughput capacity are still not clear.

Cooperation on the Transit of Turkmen and Uzbek Gas via the Central Asia-Center (CAC) and Bukhara-Ural pipelines, **as well as Russian Gas** via the Orenburg-Novopskov and Soiuz pipelines.[6]

This cooperation is being realized on the basis of an intergovernmental agreement on cooperation in the gas industry signed in 2001. In 2005, two medium-term agreements for 2006-2010 were signed between Gazprom and the Intergaz Central Asia Company, the operator of Kazakhstan's main gas pipelines and a 100% subsidiary enterprise of the KazTransGaz Joint-Stock Company. The first of them determines an increase in the volumes of Russian gas transit through the Ural Region of Kazakhstan to 70 bcm a year by 2010 via the Soiuz and Orenburg-Novopskov gas pipelines.[7] The second agreement envisages volumes of Central Asia gas transit through Kazakhstan via the CAC system of up to 55 bcm a year.

Today the actual throughput capacity of the Kazakhstan section of the CAC gas pipeline amounts to approximately 60 bcm a year, of the Bukhara-Ural pipeline up to 7 bcm, and of the Orenburg-Novopskov and Soiuz gas pipelines (total) to 47 bcm. By 2010, Kazakhstan is planning to raise the throughput capacity of the CAC pipeline, after its modernization, to 80 bcm a year and later (whereby in the next few years) to 100 bcm.

On the whole, all the work to modernize the major gas pipelines passing through Kazakhstan is being carried out by KazMunaiGaz and KazTransGaz independently, without investments or other involvement on the part of the Russian Federation and its companies. But since Kazakhstan's gas-transportation system is part of the entire post-Soviet space, interaction with Russia regarding gas transportation is inevitable.

Plans to Join the Druzhba and Adria Oil Pipelines.[8] At present, Moscow and Astana are looking at the possibility of creating a new export oil transportation vector from Russia and Kazakhstan to the world markets through Europe and the sea port of Omišalj (Croatia). It is presumed that after the Druzhba and Adria oil pipelines are joined, the volumes of oil exported from Russia and Kazakhstan to Europe will increase to 15 million tons a year, but the prospects and time limits for implementing this project are still not clear.

Petroleum Products Sale Projects

Gazprom is planning to assimilate Kazakhstan's petroleum products market with its products. Gazpromneft (Gazprom's subsidiary company) is already renting out 11 tank farms in Kazakhstan

[5] LUKARCO BV, Russia has 12.5% (326 million dollars) and Rosneft-Shell Caspian Ventures Ltd., Russia has 7.5% (195 million dollars).

[6] The Soiuz and Orenburg-Novopskov main gas pipelines, each 760 km in length, were put into operation in Soviet times (the Orenburg-Novopskov in 1976 and the Orenburg-Soiuz in 1978). Gas is transported via these pipelines from the Orenburg Region to the Saratov Region of Russia through the Ural Region of Kazakhstan.

[7] The Soiuz and Orenburg-Novopskov gas pipelines had a throughput capacity of 42 bcm a year (total) at the time they went into operation. In 2004, their actual throughput capacity amounted to around 30 bcm a year due to wear and tear of the infrastructure. But in 2004, Kazakhstan began reconstructing and modernizing these pipelines. Today the throughput capacity of these gas pipelines amounts to a total of 47 bcm a year. Precisely this amount of gas is planned to be pumped in 2008.

[8] Oil is transported from Russia to the European countries via the Druzhba pipeline which went into operation in 1964 (it is approximately 6,000 km in length). The Adria oil pipeline is a system consisting of two sections: the Hungarian section passes through Hungary from the city of Százhalombatta to the Hungarian-Croatian border, and the other section—the Jadran oil pipeline—passes from the Hungarian-Croatian border through Croatia to the port of Omišalj (Croatia, the coast of the Adriatic Sea). The total length of the route via which oil is to be transported from Samara through Russia, Belarus, Ukraine, Slovakia, Hungary, and Croatia to the port of Omišalj is 3,087 km.

and intends to develop a network of gasoline filling stations. Beginning in 2008, Gazprom plans to deliver approximately 25-30,000 tons of petroleum products a month and 300-620,000 tons a year, respectively. According to preliminary estimates, this will allow Gazprom to occupy approximately 3% of Kazakhstan's petroleum products market.

Turkmenistan

Such companies as Gazprom and the ITERA International Company Group are currently operating in Turkmenistan. The project-investment activity of Russia and Russian companies in Turkmenistan's oil and gas industry is still very low: it encompasses only the transportation of gas, while the volume of Russian investments at the beginning of 2008 amounted to a mere 25 million dollars. These funds were used to deliver technological equipment from the Russian Federation for Turkmenistan's gas industry and for renovating and modernizing gas pipelines, compressor and gas-distribution stations, and so on.

All the same, keeping in mind Turkmenistan's significant hydrocarbon and, primarily, gas reserves, there is every reason to believe that the investment activity of Russian companies will rapidly rise in the very near future. Until 2012 inclusively, Gazprom alone is planning to invest at least 2 billion dollars in Turkmenistan's gas industry (primarily in developing gas fields, as well as in increasing the capacity of the CAC main pipeline). We should also expect other Russian or joint companies to appear in Turkmenistan, in particular LUKoil and TNK-British Petroleum.

Keeping in mind that Turkmenistan's export potential in oil is low and is of no importance to the Russian Federation, Russian interests in the republic are limited to the gas industry. Gazprom is inclined to believe that its investments will give it control over Turkmenistan's national gas transportation system. In May 2007, Gazprom made sure that it was transferred dispatcher functions in the Turkmen section of the regional gas transportation system after modernization and expansion.

Today Russia does not have any real projects in Turkmenistan's oil and gas industry, unless we regard cooperation on deliveries of Turkmen gas to the Russian Federation and in the Russian vector as a project. In so doing, the following project trends are top priorities for Moscow:

Modernization of Turkmenistan's Gas Infrastructure. The project is to be carried out in keeping with an agreement on cooperation in the gas industry (between 2003 and 2028), which in particular presumes building modern installations to raise the quality requirements for natural gas. But the nature, scope, and time limits of these measures are still not clear.

Modernization and Raising the Throughput Capacity of the Central Asia-Center Gas Pipeline. This project, like the previous one, is to be carried out in compliance with an agreement on cooperation in the gas industry.

Keeping in mind that Russia is focusing particular attention on raising the import volumes of Turkmen gas, a dramatic increase in Turkmenistan's gas transportation capacities in the Russian vector is of principal importance. Today the actual throughput capacity of the Turkmen section of CAC amounts to approximately 50 bcm a year and has already been tapped to almost its full capacity. But the nature, scope and time limits for implementing the project to reconstruct and modernize the Turkmen gas pipelines with Russia's participation are still not clear.

At present, ITERA is also planning to implement a project to develop several oil and gas fields in Turkmenistan. Today, ITERA is the only Russian company permitted to develop Turkmenistan's land-based hydrocarbon fields. At the end of December 2007, Turkmen President Berdymukhammedov held talks in Ashghabad with ITERA's Chairman of the Board I. Makarov, during which several questions were discussed, including the prospects for developing oil and gas fields in Central Kara Kum and on the shelf of the Caspian Sea.

In March 2008, an ITERA delegation visited Ashghabad again, where the prospects were discussed for developing several sections of oil and gas fields on the shelf of the Caspian. The details of this meeting are not being publicized, but no specific documents were signed. In all likelihood, the main obstacle is the expense and complexity of work on the Turkmen section of the shelf, which is much deeper than the Kazakh section, for example. So ITERA intends to carry out work on the Turkmen section of the shelf along with Rosneft and Zarubezhneft under product-share conditions. It is presumed that a corresponding agreement between the government of Turkmenistan and ITERA may be entered in the near future, but just when the PSA will be signed and work begun is still not known. The ITERA Company has obvious advantages over other Russian companies in Turkmenistan, since it has been actively operating in the country since 1994 and has shares in the most diverse business spheres (not only in the oil and gas industry).

On the whole, it will be no exaggeration to say that for the moment we can only talk about Russia's project-investment activity in Turkmenistan's oil and gas industry as something that will occur in the future. This is due to the fact that all land-based hydrocarbon production is still controlled by the state in Turkmenistan (the only exception was made for the Chinese National Oil Company, ITERA, and possibly for Kazakhstan's KazMunaiGaz), while foreign investors may only develop offshore fields (in the Turkmen section of the Caspian coast) under PSA conditions.

But on the whole Russian companies are not showing any particular interest in developing oil and gas fields on the shelf. This is largely due to the fact that the offshore hydrocarbon fields that interest Russia are located close to the Turkmen-Iranian sea border. The status of the Caspian sea has still not been determined, and Iran is insisting on an increase in its sector. The development of offshore fields is also technologically more complicated than on dry land, which requires additional investments.

Uzbekistan

At present, such Russian companies as Gazprom and LUKoil are operating in Uzbekistan. As of the beginning of 2008, Russian investments in Uzbekistan's oil and gas industry amounted to between 520 and 1,050 million dollars. Until 2012, Russia is planning to invest between 4.7 and 6.2 billion dollars in Uzbekistan's oil and gas industry. These funds are mainly to be spent on geological exploration and oil and gas field development projects, as well as on modernizing the pipeline infrastructure.

Geological Exploration and Field Development Projects

Development of the Shakhpakhty Gas Condensate Field (Republic of Karakalpakstan, Ustiurt plateau, western part of Uzbekistan). The field was opened in 1962 and its recoverable reserves are estimated at approximately 46.5 bcm (including gas condensate) and 7.7 million tons of oil. Gazprom and the Uzbekneftegaz National Holding Company are developing this structure between 2004 and 2019.

Development and Geological Exploration of the Kandym-Khauzak-Shady Gas Condensate Fields (Bukhara Region, central part of Uzbekistan) **and the Kungrad Field** (Republic of Karakalpakstan). The total raw gas reserves at these structures are estimated at about 283-329 bcm (the

largest Kandym fields at 150 bcm and more), while oil reserves amount to 8 million tons. LUKoil and Uzbekneftegaz have been operating at the fields since 2004 and plan to continue until 2039. Hydrocarbon production at the Khauzak field and its delivery to the Mubarek gas processing plant (Uzbekistan) began at the end of 2007.

Geological Exploration and Subsequent Development of Oil and Gas Fields in the Uzbek Sector of the Aral Sea. The gas reserves of these fields are estimated at approximately 1 tcm, while oil reserves amount to around 150 million tons. The project is being implemented between 2005 and 2040 by an international consortium that includes LUKoil, which owns 10% of the total volume of the future production.

Geological Exploration and Subsequent Development of Several Oil and Gas Fields in the Southwestern Part of the Gissar Region (on the border between the Kashkadaria and Surkhandaria regions of Uzbekistan, the southern part of Uzbekistan, close to the town of Karshi) **and Central Ustiurt** (Republic of Karakalpakstan). The estimated gas reserves at these fields (two oil and seven gas condensate) amount to approximately 150 bcm, while oil reserves reach around 50 million tons. The project is being implemented by Russia's SoiuzNefteGaz investment financial group and Uzbekneftegaz between 2007 and 2048. In February 2008, LUKoil acquired a control stake of SoiuzNefteGaz's shares, including in its projects in Uzbekistan.

Geological Exploration of Several Other Gas Condensate Fields on the Ustiurt Plateau. The prospective reserves of only a few of the largest fields (Urga, Kuanysh, and the Akchalak Group) amount to around 1-1.27 tcm of raw gas. Gazprom has been carrying out geological exploration of seven investment sections on the Ustiurt plateau since 2007 under agreements signed in 2006 with the Uzbekistan Government and Uzbekneftegaz.[9]

Raw Gas Processing Projects

Plans for Liquefied Gas and Gasoline Production at the Mubarek Gas Processing Plant (Mubarek, Uzbekistan). Gazprom and Uzbekneftegaz have been carrying out this project since 2006 within the framework of a joint venture. There are plans to build and operate production capacities for processing 12 bcm of raw gas a year. In addition to commercial methane (the main component of natural gas by weight), the gas processing plant will produce approximately 270,000 tons of liquefied gas and 70,000 tons of stable gas condensate. Production is to begin in 2009.

Preparations for Building the Kandym Gas Processing Complex in the region of the Kandym field. The project is being implemented by LUKoil. The first line of the gas processing complex is to go into operation by 2011 with a capacity from between 6 and 8 and, according to some estimates, up to 10 bcm of raw gas a year.

Pipeline Projects

Cooperation in the Transit of Turkmen and the Delivery of Uzbek Gas. This project is being carried out by Uztransgaz (a subsidiary company of Uzbekneftegaz) on the basis of an agreement signed in 2005 between Gazprom and Uztransgaz for 2006-2010. The agreement was signed in order

[9] The agreement between Gazprom and Uzbekneftegaz on the main principles of conducting geological exploration of the subsoil of investment blocs in the Ustiurt Region of Uzbekistan; PSA between Gazprom and Uzbekneftegaz for the Urga, Kuanysh, and the Akchalak Group fields.

to organize deliveries of Central Asian gas (from Turkmenistan and Uzbekistan) using the Central Asia-Center and the Bukhara-Ural gas transportation systems that pass through Uzbekistan. Uzbekistan's gas transportation system (CAC-1, 2, 4, 5, and Bukhara-Ural) is largely in a satisfactory state and capable of transporting at least 55 bcm of raw gas a year.

Plans for Modernizing and Increasing the Throughput Capacity of the Uzbek Sections of the Central Asia-Center and Bukhara-Ural Gas Pipelines.[10] Uztransgaz is carrying out regular work to expand and repair the Uzbek sections of the CAC and Bukhara-Ural gas pipelines. Gazprom intends to increase the throughput capacity of the Uzbek sections of the main pipelines, but the nature and time limits of the possible undertakings in Uzbekistan are still not clear, and consequently the future throughput capacity of the Uzbek sections of the Central Asia-Center and Bukhara-Ural gas pipelines has not been determined.

Tajikistan

Gazprom is the only real operator in Tajikistan at the present time. Large reserves of industrial oil and gas have not yet been found in the republic. The high price of hydrocarbons is stimulating Gazprom's interest first in Tajikistan's petroleum products market and only then in the country's potential gas resources.

The following two vectors are singled out among the main areas of Russia's activity in Tajikistan's oil and gas sphere:

Petroleum Products Sale. Gazprom is planning to assimilate Tajikistan's petroleum products market with its products. Gazpromneft is already renting out four tank farms and intends to develop a network of gasoline filling stations. According to the results of 2008, Gazprom's share in the Tajik petroleum products market is expected to amount to around 30-35%.

Seismic Survey of Gas Fields in the Sargazon (Dangara district of the Khatlon Region) **and Rengan Areas** (close to Dushanbe). The prospective resources of raw gas at these fields are estimated at 65 bcm. In December 2006, Gazprom entered an agreement with the Tajikistan government for carrying out seismic prospecting, which has been underway since 2007. This work was completed at the Sargazon area in January 2008.

Gazprom is also studying the prospects for oil exploration in Tajikistan. In addition to Gazprom, LUKoil is also showing a certain interest in the country's oil and gas industry.

Kyrgyzstan

At present, only one Russian company, Gazprom, is operating in the republic. Recoverable reserves of oil and gas have still not been discovered in Kyrgyzstan.

In 2003, an agreement was signed between Gazprom and the Kyrgyzstan government on cooperation in the gas sphere. At that time, Moscow and Bishkek planned to draw up a feasibility report of their development after carrying out prospecting works at several of the most upside fields. On the basis of this, a decision will be made about the expediency of creating a joint venture for developing these fields.

[10] The Bukhara-Ural gas pipeline is intended for delivering Uzbek gas from the Gazli field (Bukhara Region of Uzbekistan) to the industrial centers of Russia's South Ural Region.

Nothing specific has been achieved so far in this respect. Talks are still going on, and the prospecting works being carried out by Gazprom are directly associated with the purchase of assets in Kyrgyzstan's oil and gas industry: Kyrgyzgaz (100% of the shares in the state's property) and Kyrgyzneftegaz (85% of the shares in the state's property).

In 2008, a whole series of talks was held between Gazprom Chairman A. Miller and Kyrgyzstan Prime Minister I. Chudinov. One of the meetings ended in an agreement being reached in February 2008 to the effect that Gazprom would begin geological exploration of the gas fields in the south of Kyrgyzstan, and the Kyrgyzstan government could allow Gazprom to privatize Kyrgyzgaz and Kyrgyzneftegaz. But privatization of these facilities will be possible only after corresponding approval by the Kyrgyz parliament.

In October 2008, talks were held in Bishkek between the presidents of the two countries—Dmitri Medvedev and Kurmanbek Bakiev. A joint statement adopted on 9 October notes that special attention will be focused on implementing large mutually advantageous projects in Kyrgyzstan (including with the use of long-term loans) in the electric power industry (building Kambaratin HPP-1 and HPP-2 and other electric power facilities), as well as on geological exploration of the subsoil in oil- and gas-bearing areas and modernization and development of the republic's oil and gas complex with the participation of Gazprom. The packet of official documents signed at the end of the Russian-Kyrgyz talks includes a Memorandum on Mutual Understanding between the Government of Kyrgyzstan and Gazprom to enhance cooperation with respect to privatization of Kyrgyzgaz and Kyrgyzneftegaz.

As a result, Gazprom is focusing priority attention on the following project vectors:

Preparations for Acquiring Assets in Kyrgyzstan's Oil and Gas Industry. Gazprom is planning to acquire a state share in Kyrgyzneftegaz and Kyrgyzgaz after the country's parliament legalizes the privatization of these facilities, but the time limits for this are still not clear. As of today, there is only a corresponding memorandum on mutual understanding between the Kyrgyzstan government and Gazprom.

Geological Exploration of Several Gas Fields. In February 2008, Gazprom received a license for carrying out prospecting works at gas fields in the southern part of Kyrgyzstan. Between 2008 and 2010, Gazprom is planning to invest 300 million dollars in prospecting works; the scope of future production is estimated at approximately 300 mcm a year.

Petroleum Products Sale. Today this is the only realistic Russian project in Kyrgyzstan's oil and gas industry. Gazpromneft began operating in the republic in mid-2006 and already has a network of 73 gasoline filling stations (mainly in the north of the country). At present, Gazprom only has a 2% share of the petroleum products retail sales market (mainly gasoline) in the republic, but it is planning to increase this share to 35-41% by 2011.

Conclusion

Oil and gas projects in Kazakhstan, Uzbekistan, and Turkmenistan are of strategic priority for Russia and Russian companies. Today each of the indicated countries is essentially of equal importance to Russia. So it can be presumed with a high degree of probability that in the medium term the current gap between the scope of Russia's project activity in Kazakhstan's oil and gas sectors, on the one hand, and Uzbekistan's and Turkmenistan's, on the other, will dramatically shrink. In the next five years, Russian companies intend to invest from between 14 and 18 billion dollars mainly in the exploration and development of oil and natural gas fields in Central Asia (primarily in Kazakhstan, Turkmenistan, and Uzbekistan), as well as in the region's pipeline infrastructure.

Theoretically, in the event that Russia's projects and investments justify themselves and ensure an increase in hydrocarbon production in the volumes Russia and the region's countries plan (this particularly applies to big oil from the Caspian shelf), the volume of oil and gas deliveries to the Russian Federation will most likely significantly grow compared with their current level and will reach approximately the following indices:

— **with respect to oil:** from 12 to13 million tons by 2010, from 14 to 17 million tons by 2015, and from 23 to 45 million tons by 2020;

— **with respect to gas:** up to 70 bcm by 2010, up to 80 bcm by 2015, and up to 110 bcm by 2020.

In turn, the transit volumes of hydrocarbons from Central Asia through Russia could potentially reach the following volumes:

— **with respect to oil:** up to 40 million tons by 2010, up to 55 million tons by 2015, and up to 65 million tons by 2020;

— **with respect to gas:** up to 77 bcm by 2010, from 90 to 100 bcm by 2015, and from 110 to 120 bcm by 2020.

In practice, however, it is still not known whether all the projects will find the necessary practical implementation or whether Russian investments (if they are offered) will be able to ensure an increase in the production of hydrocarbons and their transportation to Russia and in the Russian vector in the volumes Moscow plans. Several negative aspects of Russian-Central Asian cooperation in the oil and gas sphere appear to be the main reasons for this indefiniteness.

- **First,** Russia and several countries of the region are paying very little attention to the deeper oil and gas conversion to obtain products with a high added value. This is leading to the inefficient use of hydrocarbon resources from the viewpoint of Russia's and Central Asia's long-term economic interests. As a result, Russia is helping the region's countries to merely squander their hydrocarbons, while the national industries of all the abovementioned states are experiencing an unsatisfied demand for these strategic resources. This in turn is leading to a standstill and ultimately to gradual disintegration of a whole slew of processing industries both in Russia and in the region's states.
- **Second,** the increase in export volumes of oil and natural gas planned by the Russian Federation and the region's countries is not only putting the prospect of their industrial-innovative development at risk, but is also a delayed-action bomb with respect to the security of these states. The matter concerns the fact that hydrocarbons play an extremely important role in the fuel and energy balance of Russia and the region's republics (as well as other CIS countries), much greater than in most of the world's countries. It is very likely that an acute shortage of hydrocarbons (mainly of natural gas) will occur in the long term and perhaps even in the medium term in the internal markets of Russia and Central Asia due to the increase in the export volumes of energy resources.
- **Third,** the production and delivery of hydrocarbons in themselves form a rather fragile foundation for building long-term and stable interstate relations in the oil and gas and other spheres.

This is mainly why the current project-investment activity of the Russian Federation and Russian companies in Central Asia and the trend toward an increase in the volumes of hydrocarbon trade are not providing a full answer to the question of the future nature of oil and gas cooperation.

In the conditions described above, international competition over hydrocarbon resources makes Russia's position in Central Asia extremely vulnerable. In particular, the project-investment activity of companies from Asian countries (China, Japan, Korea, and Malaysia) is growing. The crisis in mutual understanding between the Russian Federation and the European Union regarding energy security undermines not only Moscow's position, but Brussels' as well. Particularly since Russia's monopoly on hydrocarbon transportation from Central Asia to the foreign (European) markets is already being broken down.

The political will of both Russia and the regional countries must be consolidated in order to build more reliable relations in the future in the oil and gas industry and make the most efficient use of the composite hydrocarbon potential. In this respect, a single and effective economic strategy much be drawn up in which the long-term interests of all the abovementioned states are taken equally into account.

This strategy should not aim mainly at helping each other to increase raw hydrocarbon export to the foreign markets (which is happening today), but at multifaceted integration in processing hydrocarbons within the framework of economically efficient division of labor taking into account the location of hydrocarbon fields, the presence of transportation and other infrastructure, the prospects for putting new processing capacities into operation, and the development of scientific-intensive sectors of the economy.

In order for Russia and the Central Asian countries to form and adopt a single strategy in the energy/economic spheres, it would be expedient to look for opportunities precisely in multifaceted cooperation and make use of the EurAsEC's potential, as well as possibly the SCO's. It would be expedient even now to form working teams of specialists from different countries on the basis of these organizations with the aim of carrying out a detailed analysis of the entire set of measures (organizational, technical, administrative, legal) for elaborating efficient integration mechanisms among the national energy companies.

As a result, a rational alternative to the banal squandering of hydrocarbon resources can only be a radical shift in the strategic priorities not only in oil and gas, but also in general economic cooperation between Russia and Central Asia: turning away from increasing export volumes of hydrocarbons to the foreign markets toward accelerating multilateral regional integration in the innovative-industrial sphere.

In this respect, the idea of creating a single energy EurAsEC holding deserves attention (for example, in the form of a transnational corporation). In so doing, this structure's prerogative should not only be the oil and gas industry, but the energy sector as a whole, including the coal industry, the atomic power industry, the hydropower industry, and the development of renewable sources of energy in general. Today it is difficult to say how efficiently such a corporation could ensure the optimal use of energy resources. This is a separate question. But it is nevertheless obvious that it could more efficiently defend the interests of all the structure's member states and oppose the negative influence of global factors much more successfully than is being done today. It is also presumed that creating a unified energy holding would dramatically increase the interest of Central Asia and other countries in cooperation precisely with Russia and would have a powerful stimulating effect on economic development, particularly of the post-Soviet space and possibly of Eurasia as a whole.