IRAN AS AN EXPORTER OF NATURAL GAS TO THE SOUTH CAUCASIAN COUNTRIES

Vladimir SAPRYKIN

Ph.D. (Technical Sciences), director of energy programs at the Ukrainian Razumkov Center of Economic and Political Research (Kiev, Ukraine)

Many countries of the world have been engaged in serious rivalry for many years now over access to energy resources and the right to control their transportation routes. The energy industry has become a priority tool in world diplomacy for smoothing out international

disputes and paving the way, if not to alliances, at least to reconciliation among neighboring countries. Of course, today no one knows who will be supplying the world with energy thirty years down the road and how this will be done, but experts assure us that the production and consumption of natural gas will increase at rapid rates, on an average of 2.4% a year (followed by oil at 1.6% and coal at 1.4%). And the price of blue fuel will also rise. What is more, there is no doubt that Iran, which currently occupies second place in the world (after Russia) in terms of supplies, will become one of the largest gas exporters to many Eurasian states. Despite resistance and competition from several other countries, this state is already making plans to implement several gas-related projects on an extremely extensive territory in the next few years.

Although Iran is beginning its gas expansion projects in the South Caucasian countries, Tehran intends to put significant pressure on Russia's Gazprom in Europe as well, which could have a serious impact on the balance of power on this extremely solvent market and affect price formation.

The Critical Gas Triangle: Azerbaijan-Georgia-Armenia

The gas sectors of the South Caucasian republics came to almost complete fruition during the Soviet era, in the aftermath of which, they, like other CIS countries, are faced with the same (and at times common) problems in this sphere. These problems primarily include physical depreciation of equipment and pipelines, shortages of raw material and investments, and so on. But the region's countries have one particular feature which is not characteristic of the other Commonwealth states. They are unable to organize stable deliveries of blue fuel due to internal and interstate conflicts. These include Nagorny Karabakh, Abkhazia, Ajaria, South Ossetia, etc. Many of these conflicts are accompanied by an economic blockade. The most serious of them, for example in Nagorny Karabakh, make it impossible to use pipelines for delivering natural gas and have entirely changed the system for supplying all three independent South Caucasian states with this commodity. First, Armenia is unable to obtain gas (either Russian, or Central Asian) from Azerbaijan, as it did during the Soviet era, but has to have it delivered via Georgia, whereby these deliveries are unstable (they are systematically reduced, and often even interrupted). There are three reasons for this: Georgia's chronic debt on the gas it consumes, terrorist attacks on gas infrastructure facilities, and the deterioration in relations between Moscow and Tbilisi. Second, the geographical isolation of the Nakhichevan Autonomous Republic (NAR) of Azerbaijan from the "mainland" is not conducive to providing its economy with regular gas supplies. Third, Armenia's transportation blockade by Turkey and Azerbaijan makes Russia its only gas exporter (the Iran-Armenia pipeline has not yet been extended). Fourth, neither the Russian Federation (in the Caucasus), nor the South Caucasian states can ensure reliable protection of their gas transportation infrastructure facilities, which are threatened by terrorist acts.

In order to analyze ways to revive normal blue fuel deliveries to the South Caucasian republics and evaluate the losses in this sphere, it is worth taking a look at the utilization ratio of their national gas transportation systems (GTS) compared with other CIS and Baltic countries. Of course, today they differ immensely, mainly due to the depreciation of the linear part of the gas pipelines and pumping equipment, and in certain cases complete destruction of some sections, as well as to the fact that the economies of the region's countries have still not attained the development level of Soviet times. Although we have no desire to sing the praises of the Soviet Union, we have to admit that the technological expediency and engineering perfection of its integrated gas supply system has now fallen largely by the wayside. Almost all the post-Soviet countries face the same problem, the need to diversify gas supply sources.

Table 1

Load Dynamics of the Gas Transportation Systems of the CIS and Baltic Countries

Country	Rated Throughput Capacity of the GTS (*bill. cubic m*)	1990		1995		2000		2001	
		Actual Utilization of the GTS (*bill. cubic m*)	Load Coefficient of the GTS (%)	Actual Utilization of the GTS (*bill. cubic m*)	Load Coefficient of the GTS (%)	Actual Utilization of the GTS (*bill. cubic m*)	Load Coefficient of the GTS (%)	Actual Utilization of the GTS (*bill. cubic m*)	Load Coefficient of the GTS (%)
Western Region									
Ukraine	290.0	256.6	88	242.0	83	209.3	72	216.5	75
Moldova	36.0	22.3	62	21.4	60	21.1	59	23.5	65
Belarus	57.3	42.9	75	33.8	59	40.8	71	47.2	82
South Caucasian Region									
Armenia	10.0	4.8	48	1.4	14	1.3	13	1.4	14
Georgia	16.0	10.2	64	2.4	15	2.6	16	2.7	17
Azerbaijan	22.0	16.6	75	6.6	30	5.2	24	5.9	27
Central Asian Region									
Kazakhstan	98.2	84.4	86	26.9	27	33.5	34	45.7	47
Uzbekistan	77.6	77.6	100	24.3	31	33.8	43	45.9	59
Turkmenistan	86.6	76.7	89	20.5	24	28.0	32	40.0	46
Baltic Region									
Lithuania	10.0	6.8	68	2.9	29	3.0	30	3.0	31
Latvia	7.8	5.3	68	3.2	40	3.9	50	4.2	53
Estonia	3.2	1.5	47	0.7	23	0.8	26	0.9	27

Source: Y.A. Kazarian, "Development of Relationship of Russia with other CIS Countries on the Gas Market," *Proceedings of the 22nd World Gas Congress*, Tokyo, 1 June, 2003.

A comparison of the utilization dynamics of their gas transportation systems (see Table 1) makes it possible to draw the following conclusions.

First, in 1990, before the Soviet Union collapsed, the average utilization ratio of its GTS was 92% (in the Baltic Region and in the Union republics of the Southern Caucasus it was 62%, and in Uzbekistan 100%). This was both due to the decrease in gas consumption initiated by a partial drop in production, and to the decrease in throughput capacity of this system envisaged in the project.

Second, in the mid-1990s, all the CIS and Baltic countries significantly reduced the utilization ratio of their GTS, on average to 36%, due to the decrease in gas consumption caused mainly by the overall economic crisis and abrupt increase in the price of gas. A relatively favorable situation developed in the countries of the Western Region (utilization amounted to 67%), which is explained by the transit nature of most of their GTS, enabling export to Europe to continue. The most unfavorable situation was in the Southern Caucasus, mainly due to internal and interstate conflicts. According to some data, there were several dozen terrorist attacks on Georgian gas pipelines which transport blue fuel to Armenia.

Third, at the beginning of the 21st century, most CIS countries significantly raised the utilization ratio of their gas transportation systems, which was largely promoted by the economic upswing. But it continued to drop in the South Caucasian states to the lowest indices ever for the Commonwealth. This was initiated not only by the unresolved conflicts in the region, but also by the systematic decrease in gas deliveries to Georgia (which also means to Armenia, where it is transited through Georgia), primarily due to Tbilisi's debt to Moscow for these deliveries and the deterioration in relations between these two countries.

But the main thing is that at the current stage of production increase in the South Caucasian states (see Table 2), albeit at different rates (now stabilization of the level of blue fuel consumption, now its increase is observed), the conflicts in the region and complicated political relations are making it difficult to supply their economies with natural gas. Gazprom, meaning the Russian Federation, cannot provide the necessary deliveries (including due to its inability to ensure protection of the pipelines on Russian territory contiguous to the region).

Table 2

Preliminary Socioeconomic Characteristics of the South Caucasian Countries and Iran (*as of the end of 2004*)

Country	Territory *(thou. sq. km)*	Population Size (*mill. people*)	Gross Domestic Product (*bill. dollars*)	Increase in Gross Domestic Product (*%*)	Per capita Gross Domestic Product *(dollars)*
Azerbaijan	**86.6**	**8.3**	**8.2**	**9.2**	**988**
Armenia	**29.8**	**3.2**	**3.7**	**9.8**	**1,071**
Georgia	**69.7**	**4.3**	**5.0**	**9.1**	**993**
Iran	**1,648.2**	**69.0**	**127.0**	**4.4**	**No data**

Source: *Global Insight.*

The strategy of exchanging cheap Russian gas for political cooperation or at least loyalty is not working. And the projects sponsored by the U.S. will not provide the region's countries with the necessary amounts of blue fuel. Adequate supplies of hydrocarbons are needed to develop the economy

no matter what the political difficulties. On the other hand, the desire to raise the level of energy security and prevent politics from having an impact on gas imports is prompting a search for and the implementation of measures aimed at diversifying its supply sources. In this way, objective conditions have been created in the South Caucasian countries for the appearance on the traditionally Russian gas market of a new player—the Islamic Republic of Iran (IRI).

Azerbaijan's Gas Sector

Despite the significant deposits of blue fuel (up to 2 trillion cubic meters) and the possibility of obtaining associated gas during oil production, the republic's gas industry is underdeveloped. The domination of oil-and-gas over gas fields, as well as the technical problems related to the use of associated gas, primarily on the shelf, are impeding rapid growth of gas production.

During the Soviet era, Azerbaijan received gas from the Central Asian republics and Iran, but after the collapse of the Soviet Union, these deliveries stopped. For a long time, the International Itera Company supplied Azerbaijan with gas (primarily Turkmenian). After the change in strategy in the CIS, Gazprom returned to this country as well.

In 2004, Azerbaijan's own production amounted to 5 billion cubic meters, 0.2 billion cubic meters less than in 2003 (with a consumption rate of 11-12 billion cubic meters). The reduction in production was caused primarily by the depletion of old fields and the lack of interest by Western companies in increasing the consumption volumes of associated gas, since significant investments were needed to carry out these tasks. The gas shortage is compensated for by the Russian-Kazakh KazRosGaz Joint Venture (4 billion cubic meters of Kazakhstan gas and 1 billion cubic meters of Russian), to which Gazexport (a subsidiary of Gazprom) transferred its contract. It is pumped via the Shirvanovka–Mozdok–Kazi-Magomed pipeline, but it requires modernization and partial restoration for it to operate normally. For example, between 21 and 23 April, 2004, KazRosGaz entirely ceased these deliveries due to urgent repair of the main pipe.

What is more, terrorist acts undermine delivery stability (in 2004 alone there were three explosions, the last occurring on 7 December in Daghestan, as a result of which gas could not be delivered to Azerbaijan for several days). On the whole, accidents and terrorist acts in the North Caucasian section brought the gas pipeline to a standstill for a total of 50 days in 2004. Only the existence of two underground gas reservoirs in the country helped it to alleviate these problems.

Today, up to 40% of the gas produced in the country is obtained on the shelf oil and gas field of Bakhar, which is located to the south of the Apsheron Peninsula. But its supplies are already running out (there are plans to develop the Bakhar-2 field). Additional volumes can mainly be obtained at old fields (by means of associated gas produced at oil fields) and at several new ones. But this requires creating a corresponding infrastructure, in particular, a comprehensive gas preparation installation must be built by expanding the Sangachal oil terminal (the development of offshore oil deposits of the Azeri-Chirag-Gunashli project), since associated gas is still being burned at production units in flares. (The plan envisages drilling up to 20 gas wells in the shallow part of the Gunashli field.)

Despite the increase in the price of gas in November 2004 (for the population it increased from 7.2 to 16.5 dollars per 1,000 cubic meters and for other consumers to 48.1 dollars), its sale on the domestic market is unprofitable, since the country imports blue fuel at 52 dollars per 1,000 cubic meters. In 2005, the Azerigaz closed joint-stock company will no longer receive subsidies from the state budget, which will inevitably lead to a further increase in domestic prices.

Talks on the price of Russian gas for 2005 held on 10 December, 2004 between Gazexport General Director A. Medvedev and Azerbaijani Vice Prime Minister Ia. Eiyubov did not yield the desirable

results. The Russian company wanted to raise the price from 52 dollars for 1,000 cubic meters to 70-80 dollars, which the Azerbaijani side could not agree on. And after 1 January, 2005, Gazexport stopped delivering gas to Azerbaijan, not resuming its delivery until the evening of 10 January. According to some sources, an agreement on the price increase was not reached, while others said it would be increased to 60 dollars for 1,000 cubic meters. Nevertheless, forty regions of the country were without fuel for ten days, which created serious problems for the population and industry. According to the official Russian version, the halt in deliveries was due to shutdowns on the pipelines running across Turkmenistan and Uzbekistan to Russia.

The second country to continue the "gas price parade" at the end of 2004 was Turkmenistan. It wanted to raise the price of gas delivered to Russia and Ukraine from 44 to 60 dollars for 1,000 cubic meters (according to the plan for 2005, 7 billion cubic meters are to be delivered to Russia alone). Ashghabad stopped pumping gas on 31 December, 2004 (at 10:00 Moscow time), motivating this by the need to carry out repairs and restoration on the Central Asia-Center pipeline. Nevertheless, A. Medvedev mentioned above stated that this would not interfere with Gazprom carrying out its obligations to consumers in Russia and abroad.

Nevertheless, Gazexport's reference to Turkmenistan's problems while delivering Russian and Kazakhstan gas indicates elementary pressure by this Russian gas monopolist on Azerbaijan.

The Shakh Deniz gas condensate field is one of the most important in the republic. This promising structure, which is located on the Caspian shelf, was discovered as early as 1976. But since there were giant fields in Western Siberia, its exploration and development were considered inexpedient. Not until 1996, after signing a contract with a consortium of foreign companies, did in-depth exploration of these fields begin. On the whole, the project is being implemented separately from other undertakings in the republic's gas industry due to its export orientation toward Turkey and Greece and possibly other European countries, primarily Italy (as part of the EU Nabucco project). Baku, Tbilisi, and Ankara reached an agreement on the delivery of 178 billion cubic meters of gas from Shakh Deniz (at the first stage). Production will begin in mid-2006 (it was originally intended to begin in 2004), 8.1 billion cubic meters at the first stage, and up to 16 billion in the future.

The consortium of international companies under the supervision of the Statoil Company (at the first stage of the project) plans to pump 6.3 billion cubic meters of gas to Turkey, 0.8 to Georgia, and 1.5 to Azerbaijan. On 21 October, 2004, the BP Company announced that construction of the South Caucasian pipeline (better known as Baku-Tbilisi-Erzerum or BTE) would begin, and a pipe-welding ceremony was held at its 213-kilometer point (Azerbaijan). All the work is to be completed in 10 months, including the laying of a 443-kilometer pipe in the Azerbaijani and the same length of pipe in the Georgian sector. The contractors are a Greek company and French-American joint venture, and the pipes are being supplied by a Japanese Company, Sumitomo.

The directors of the Azerbaijan oil and gas complex say that in the next two or three years, the country will no longer have to import gas. But their optimism arouses skepticism. First, Baku will not be able to independently take charge of Shakh Deniz gas, since the republic's share in the consortium is only 10%. What is more, it will have to export contracted amounts via the BTE pipeline. Second, there are certain technical problems involved in producing and using the associated gas obtained on the shelf, and there is little prospect of producing blue fuel at other fields.

It should be noted that the "weak link" of Azerbaijani gas could be its price—offshore production is usually much more expensive than dry land. What is more, at Shakh Deniz, the depth necessary for drilling wells is more than 6.5 km. As a result, the budget for the first stage of this project has already been increased from 2.7 billion dollars to 3.2 billion (including the cost of building the pipeline). In December 2004, Toby Odone, BP's press secretary, said that the spending on the Shakh Deniz project could increase by 25%. In this way, the initial cost of the work, 3.2 billion dollars (2.3 billion of which are to be spent on gas production and another 0.9 billion on building a pipeline 1,050 km in

length and with a capacity of 15-20 billion cubic meters of gas a year), will increase to 4 billion dollars. And there is no reason to doubt that this will be the last hike.

The field's long distance from Europe and complex geological structure are dramatically increasing the final cost of Azerbaijani gas. At the Turkish border, it will reach 100 dollars per 1,000 cubic meters. This will toughen competition with Iranian gas, the price of which is lower at the Turkish border. Still, Ankara considers Iranian gas too expensive and is asking Tehran to lower its price.

Of course, prices in Europe are much higher than in the Southern Caucasus. But the long length of the gas pipeline to Europe is making the final price of Azerbaijani gas too high even for Turkey. What is more, political support of this project both from the United States and the European Union (the EU is supporting the project financially as well, by means of a loan from the European Bank of Reconstruction and Development to Baku) is guaranteeing its implementation by coming to terms on mutual claims. On 14 December, 2004, the EBRD allotted Azerbaijan 170 million dollars to implement gas projects, 110 million dollars of which are being spent on developing the Shakh Deniz field (the total cost of the work is evaluated at 4.3 billion dollars) and 60 million dollars on building the BTE pipeline (estimated cost—1 billion dollars).

Despite the Russian Federation's formal participation in the project (its LUKoil Company is a member of the consortium), the appearance of a new rival on the EU gas market is not to Moscow's liking, which is demonstrated by the regular criticism of the Azerbaijani project in the Russian mass media. Incidentally, time will show precisely which measures Gazprom intends to undertake regarding export of gas to Azerbaijan. And it has a variety of measures at its disposal, from dramatically increasing the price of gas (which is already happening) to restricting delivery volumes.

In this way, Baku is trying to find a gas niche for itself on the Turkish market in terms of medium-term gas import demands and has its sights set on the European market for the future. Such a vulnerable situation, which is additionally complicated by the high price of its own gas, is making Azerbaijan a hostage of the gas price policy of its main rivals, Russia and Iran. All of these problems are creating grounds for another disruption in the schedule for implementing the Shakh Deniz project.

Iran: Friend and Rival

Azerbaijan will not be able to manage without Iranian gas, which is indicated by a memorandum signed between the two countries on deliveries to the enclave Nakhichevan Autonomous Republic, to which blue fuel was transported in Soviet times across Armenia. This is now impossible due to the conflict between Baku and Erevan. Talks on these deliveries were quite arduous due both to the absence of a gas infrastructure in Nakhichevan, and to the special features of gas payment. In exchange for its gas (0.35 billion cubic meters annually), Iran wants to obtain an equivalent amount from the Shakh Deniz field and in future possibly 0.5 billion cubic meters a year, which is related to the plan to transfer four turbine units of the Nakhichevan thermal power plant from liquid fuel to gas.

Iranian gas will be pumped to the NAR via the Julfa-Nakhichevan pipeline, 42 km in length, which still has to be built (with financing from the Azerbaijan budget). Gasification of the autonomous republic will require 12.6 million dollars, and Baku is willing to have Tehran do the work. Gas should come back to Iran via the Kazi-Magomed–Astara pipeline (in Azerbaijan), but 18.3 million dollars must be found for its restoration. (This is a branch of the Gazakh-Astara-Iran mainline, which was introduced into operation in 1971 and not used for many years, its throughput capacity amounted to 10 billion cubic meters a year). In compliance with the agreements between Baku and Tehran, Azerbaijani gas must be pumped at a pressure of 50 atm., for which gas compressor and gas-measuring stations must be built in Azerbaijan. According to the plan, the first Iranian gas (0.05 billion cubic meters) will reach the NAR in September-October 2005.

What is more, Iran is competing with Azerbaijan for delivering gas to Turkey (where Tehran is already delivering gas) and to Europe, while also acting as a co-developer of the Shakh Deniz field. In this way, Tehran has the opportunity to exert rather strong pressure on the formation of gas flows from Azerbaijan. The problems in this sphere will most likely prevent official Baku from making a "gas breakthrough" into the EU in the next 5-7 years. First, it can be expected that it will only export blue fuel to Turkey, that is, the Shakh Deniz project will have a strictly regional status. Second, due to the small volume of these deliveries, the project, which costs more than 4 billion dollars, will not pay itself off any time soon. Third, Azerbaijan will not be one of the major gas exporters due to the serious miscalculations in its hydrocarbon strategy (it treats the gas industry as a derivative of the oil industry). Fourth, as a net importer, its attempt to export gas could cause Russia, and in future possibly Iran, to dramatically increase the price of blue fuel for Azerbaijan. And the main thing, which is more realistic, Azerbaijan will be forced to concentrate on meeting the country's domestic gas needs.

The Situation in Georgia

Georgia produces a miserly amount of gas, only 0.02 billion cubic meters in 2003. At the beginning of the 1990s, it purchased the additional amounts it needed in Turkmenistan, but due to the fact that Tbilisi owed it huge amounts of money, which ran into the millions, Ashghabad stopped these deliveries. In the mid-1990s, the Itera Company became the main deliverer of Russian and Turkmenian gas, in particular, it delivered 1.34 billion cubic meters in 2002 at 60 dollars for 1,000 cubic meters. Some of the gas also went to Armenia by transit through Georgian territory (a total of up to 2.5 billion cubic meters to two countries). What is more, during the years it maintained contacts with Tbilisi, Itera was able to acquire 90% of the shares of Georgia's Azot mineral fertilizer plant and part of the low-pressure gas-distribution networks for a song. Nevertheless, in October 2003, Itera stopped delivering gas to this country after Gazprom reappeared on the Georgian scene.

The shortest path for Russian gas to Turkey is through Georgia. But at present it passes through Ukraine and other European countries, as well as along the bed of the Black Sea, via the new Blue Stream pipeline. For gas pipeline routes are not always dictated by the economy, they are quite often determined by politics and the countries' energy security problems, which is confirmed by the agreements between Tbilisi and Tehran (see below).

An Old Friend is Better than Two New Ones?

At the end of the 1990s, Georgia began talks with Gazprom on the creation of the GruzRosGazprom Joint-Stock Company. But in 2002, they were interrupted on the initiative of official Tbilisi, which at that time decided that this joint-stock company would have a negative effect on the country's energy security.

In July 2003, director of Gazprom A. Miller signed a 25-year agreement with Georgian Fuel and Energy Minister D. Mirtskhulava (at the behest of the country's president, Eduard Shevardnadze) on strategic cooperation in the gas industry. It envisaged not only deliveries of blue fuel, but also reconstruction of the country's gas transportation system. The Georgian opposition, including Z. Zhvania, called this agreement a "betrayal of the state's national interests."

After Itera was ousted from all the CIS countries, Gazexport made its appearance in Georgia on 1 October, 2003, but the price of blue fuel did not change. (Although Tbilisi was in favor of having two suppliers, Gazprom would not allow Itera to stay.) It should be noted that the United States not

only objected to Georgia creating a joint venture with Gazprom, it also proved the inexpediency of delivering blue fuel via the Vladikavkaz-Tbilisi-Erevan main pipeline. Steven Mann, U.S. Secretary of State's Special Advisor for the Caspian issues, talked about this in June 2003: "The interests of the BTE project should not be infringed upon; cooperation with Gazprom, primarily reconstruction of the main gas pipeline, is lowering the market cost of the BTE project, during the implementation of which Georgia will be granted significant preferences, including in gas supply."

The last statement is well-founded, since Georgia will be able to obtain 0.3 billion cubic meters of gas (until 2015) in exchange for transit services via BTE and purchase another 0.5 billion cubic meters at special rates. But at one time Steven Mann warned official Tbilisi: "If the country's main gas pipelines are sold to Gazprom, it will no longer receive the bonuses due it from transporting Azerbaijani gas via BTE." But Georgia's requirements are over three-fold higher. What is more, the BTE will not go into operation until 2006. So Tbilisi had to choose one of the two monopolists, Itera or Gazprom.

In September 2004, the same Zurab Zhvania, in the new capacity of prime minister, held a working meeting with a Gazprom delegation, at which the matter concerned privatizing certain facilities of Georgia's gas industry, primarily its gas transportation system and the Tbilgaz gas distribution company. Gazprom offered 300 million dollars for control of Georgia's GTS, but the Georgian side wanted 5.4 billion dollars for Tbilgaz. So far, the talks have not yielded any positive results.

Due to the accumulated debts for blue fuel, Gazprom (like Itera at one time) regularly lowers the delivery volumes. The main reason for the accumulated debt is the low level of financing by the Georgian government and poor potential of the capital's budget, which must compensate the population and state institutions for part of the cost of blue fuel. Here it is appropriate to note that Gazprom (like Itera) always seems to find the right time to make a major cutback in the supply of gas, just as political relations between Georgia and the Russian Federation are taking a nosedive. For example, during the June events of 2004 in Southern Ossetia, deliveries to Tbilisi were halved.

In October 2004, Tbilgaz and Gazexport signed a contract on gas deliveries in 2005 (at the former price of 60 dollars for 1,000 cubic meters). Debts on Russian gas consumed since December 2003 reach almost 8 million dollars and will be settled in stages. The question of Georgia's solvency will remain open in the near future—its debt to 13 creditor countries tops 600 million dollars. What is more, the country's economy has been suffering for many years from systemic corruption, debts, and ethnic conflicts, and is unlikely to recover any time soon without significant international financial aid.

New Friends

The Iranian-Georgian talks on gas deliveries which began in the mid-1990s have not been crowned with success. The main reason for this is the high cost of Iranian gas. After the Rose Revolution, official Tbilisi brought this topic up again, which was caused by unstable operation of the country's fuel and energy complex and a deterioration in Georgia's relations with Russia. Now there are two real delivery alternatives: via Azerbaijan and through Armenia, but the local gas pipelines are extremely worn out and in need of repair. In so doing, the Armenian direction is more economically profitable, but Georgia preferred transit through Azerbaijan.

During Georgian President Mikhail Saakashvili's official visit to Tehran in July 2004, agreements were reached on the delivery of Iranian gas. At the beginning of January 2005, Georgia finished repairing the gas pipeline in this direction (the cost of the work amounted to 0.5 million dollars), and Iran has created a corresponding infrastructure on its territory, on which it spent 180,000 dollars. The pumping of blue fuel (up to 4 billion cubic meters) can begin very soon.

Official representatives of the Georgian Ministry of Energy state that Iranian gas will only be delivered in emergencies, if the pumping of Russian gas is halted or entirely ceased. The main reason for the temporary nature of import is the higher price of Iranian gas. Of course, these measures are related to the problem of ensuring the country's energy security, and the flourishing cooperation between Tbilisi and Tehran can be explained by the deterioration in Russian-Georgian relations. Incidentally, any aggravation in Russian-Georgian relations in the future might turn temporary import of Iranian gas to Georgia into permanent, at least for a limited period. And all plans to expand economic contacts between Moscow and Tbilisi, primarily regarding privatization, as well as renting enterprises of the Georgian fuel and energy complex to Russians, are acquiring a political hue and meeting resistance not only in Georgia, but also from the U.S. What is more, the country's diversification of blue fuel import is conducive to lowering its price by freeing it from its dependence on monopoly deliveries from the Russian Federation.

The Armenian Gas Sector

Armenia does not produce either gas or oil, since it does not have any supplies. In 1959, it was incorporated into the U.S.S.R. Integrated Gas Supply System, and until the collapse of the Soviet Union, up to 2,000 km of gas pipelines were laid in the republic. At that time, all three Union republics of the Southern Caucasus were mainly provided with gas by it being delivered from Central Asia to Azerbaijan and on to Georgia and Armenia. The collapse of the Soviet Union and the interstate conflicts in the region led to the disintegration of its integrated gas supply system. Whereby the last factor led not only to physical, but also to "geographic" isolation: blocking of the borders prevents use of the infrastructure created in past years (which caused it to fall into disrepair) and, of course, in the current situation it is impossible to lay new, alternative gas pipelines.

In December 1997, a closed joint-stock company, ArmRosgazprom, was created (its owners were the Armenian Energy Ministry and Gazprom—45% of the shares each, and Itera—10%). The latter worked for many years in the country, but in June 2003, its niche was entirely filled by Gazprom, which planned to increase deliveries to 1.4 billion cubic meters in the near future.

Today, the two gas pipelines which connect Azerbaijan and Armenia have been shut down; deliveries from Turkey are impossible due to Ankara's blockade of the Armenian border, and Erevan's only blue fuel import route is the pipeline from Russia via Georgia. But the compressor station in Mozdok (the Russian Federation) operates irregularly due to the abrupt reduction in gas pumping volumes to Georgia and Armenia.

It should be noted that ArmRosgazprom is an unprofitable structure, and what is more, at the beginning of 2004, the company had a debt of 17.54 million dollars.

Taking into account the country's gasification rates and total gas consumption growth as a result of the socioeconomic upswing in the republic, ArmRosgazprom is planning to increase deliveries in 2005 to 1.6-1.7 billion cubic meters. And in 2007, Armenia will begin receiving Iranian gas.

Between the U.S. and Russia

The history of the Iran-Armenia gas pipeline is both simple and complicated. As we have already noted, after the collapse of the U.S.S.R., Russian and Turkmenian gas were pumped to the republic via Georgia. Frequent accidents and a decrease in the supply of blue fuel due to its irregular payment by consumers in Georgia led to systematic interruptions in deliveries. The only prospect for

Armenia was Iran. The two countries began discussing cooperation in this sphere as early as 1992, which did not suit Russia's Gazprom, to put it mildly. All the same, in 1995, Tehran and Erevan entered an intergovernmental agreement-plan of intention on building a pipeline, but could not come to terms on the gas price. They did not sign a more specific memorandum on building this route until the end of 2001.

As for Gazprom, recently its stance regarding this construction project has radically changed. Instead of putting up severe resistance due to possible loss of part of the Armenian market, it has come to understand the need to implement this project. For example, one of the Gazprom directors, A. Riazanov, who came to Erevan in July 2004 on business, noted: "We understand that for Armenia, this project is strategic and related to gas supply and energy security ... since the pipeline on Georgian territory is in a poor state and needs major repairs." But Gazprom did not give a straight answer regarding its participation in this construction project (the first stage began without it). On the other hand, participation in the laying of the Iran-Armenia pipeline will allow Gazprom to control the transit of competitive Iranian gas in the northern direction. On the whole, the Russian Federation considers Armenia one of its most important strategic partners in the Caucasus and is keeping quite a keen eye on the events in this country.

The second, just as important, opponent to construction of this route was the United States, which until 2002 thought it would bring Tehran significant profits. But Armenian diplomats were able to convince the U.S. that the gas pipeline is necessary not only for ensuring the country's energy security (due to diversification of supply sources), but also for its survival. Of course, these are serious arguments, but it is obvious that the country could not manage without the intervention of the influential Armenian lobby in the U.S.

As a result, after 12 years of talks, on 13 May, 2004, a final agreement was signed in Erevan on the construction of this route. There are plans for Iran to export 1.1 billion cubic meters of gas to Armenia every year for 20 years (with the possibility of increasing volumes to 2.3 billion cubic meters) in exchange for Armenian electricity (from the Erevan thermal heat plant). According to some data, the price of Iranian gas will amount to 84 dollars for 1,000 cubic meters. Deliveries are to begin in 2007, and the final deadline for building and putting the pipeline into operation is 1 January of the same year. Each country is to pay independently for this work in its own section (100 km on Iranian territory and 41 km on Armenian). According to preliminary estimates, Erevan will have to fork out 90 million dollars and Tehran 120 million dollars. On 30 November, 2004, a ceremony was held in the Siunik Region (in the south of Armenia) to begin building the Megri-Kajaran section of this route. At that time, the second transmission line of the electricity network between Iran and Armenia went into operation (it ensures export of Armenian electricity to pay for Iranian gas). And Iran began laying the first 10 km of the gas pipeline through its territory in June 2004. What is more, two Iranian banks allotted 30 million dollars for construction projects in Armenia. The question of financing and carrying out the subsequent stages of the gas pipeline of 197 km in length (Kajaran-Ararat) has still not been decided.

It should be noted that the small pipe diameter stipulated by the project does not permit Iranian gas to be pumped via this route to Georgia, Ukraine, and on to the EU countries. In this way, the project talked about for many years in Tehran, Erevan, Tbilisi, and Kiev (the Ukrainian Design Institute even drew up its feasibility report, including laying of the underwater part of the route) has not come to fruition.[1]

Nevertheless, the arrival of Iranian blue fuel and the modernization and expansion of the Abovian underground gas storage reservoir (costing 27 million dollars) will help to carry out the main measures aimed at raising the level of energy security in the Armenian gas sector.

[1] This question is highlighted in more detail in V. Saprykin's article entitled "Iz zhizni gazoprovodov: Iuzhny Kavkaz idet ot Rossii k Iranu?" *Zerkalo nedeli,* No. 2, 22-28 January, 2005, pp. 1, 10.

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The main result of implementing the Iranian gas delivery projects to South Caucasian countries is the increase in their energy security level. But, as we have already noted, these projects are characterized by relatively low economic indices (see Table 3).

Table 3

Pros and Cons of the Iranian Gas Delivery Projects to the South Caucasian Countries

Pros	Cons
diversification of delivery sources	high cost of the projects
formation of competitive markets, which stimulates a decrease in price by all suppliers	low throughput capacity of the pipelines
creation of new jobs	low level of project profitability

On the whole, despite the relatively small volumes (see Table 4), the arrival of Iranian gas in the South Caucasian states is a propitious event, since it signifies the first real steps to diversify sources for providing the CIS countries with blue fuel. Without driving Russian gas from the scene, it is nevertheless providing them with a real alternative to Gazprom's monopoly.

Table 4

Feasibility Indices of the Gas Sectors of the South Caucasian Countries and Projects for Supplying Them with Iranian Gas

Indices	Azerbaijan	Armenia	Georgia
Gas supplies (*trill. cubic m*)	2	0	0.2-0.4
Own production (*bill. cubic. m*)	5	0	0.4
Import from Russia (*bill. cubic. m*)	5.5	1.6-1.7	1.3-1.4
Price of Russian gas (*doll. per 1,000 cubic m*)	52	79-89	60
Consumption (*bill. cubic m*)	11-12	1.6-1.7	1.3-1.4
Import from Iran (*bill. cubic m*)	0.35	1.1	Limited*
Preliminary price of Iranian gas (*doll. per 1,000 cubic m*)	90	No data	No data
Year import begins from Iran	2005	2007	2005

* Import is only envisaged if the delivery of Russian gas is halted or completely ceased.

Despite the fact that in the future Iran hopes to export most of its gas to the European Union, deliveries of blue fuel will begin precisely to the South Caucasian countries. And the appearance of such a serious rival on the Eurasian gas market will force Gazprom to reconsider its strategy and priorities, thus having an impact on most of the countries which consume blue fuel in this extensive area.