

AZERBAIJAN: EURASIA'S ENERGY NEXUS?

The article discusses the rising importance of gas reserves of the Caspian region in a rapidly changing environment and analyses the role of Azerbaijan as one of the main gas producer in the region. Huge investments in exploitation and development of new gas fields in Azerbaijan might tremendously increase the figure of estimated gas reserves of the country and make Azerbaijan able to meet the actual and potential customers in mid-and long-term perspectives. Having an indispensable geographic position, Azerbaijan envisages and participates in all the possible routes of supplying gas including East-West, North-South and South-North axis.

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The geopolitics of gas markets today are changing due to energy efficiency policies and climate change commitments. Moreover, the scale and use of unconventional gas is widening in Europe, which decreases the amount of gas imported from Russia and other states. However, this trend will not last long and by 2015-16 the demand for gas in Europe will begin to slowly increase. By 2030 gas imports in Europe are expected to increase by nearly twofold.

In order to meet demand, European countries have launched the Southern Corridor project, which heavily depends on Azerbaijani gas for its first stage. Rising international demand for Azerbaijani gas is driven by the policy of supply diversification, particularly for Eastern and Central European states. Central Asian and Caspian reserves are seen as the primary source for this diversification. Moreover, Western energy companies have expressed their interest in the development and exploration of Azerbaijani undeveloped prospective gas fields that would notably increase the potential gas volume of the country. That will help to meet some demand from EU and non-EU customers as well as potential customers in mid term perspectives.

As part of its rapid response to these changes, Azerbaijan is launching the LNG project AGRI, as well as exploring all possible markets in the region for its gas. Baku is also considering Middle East market perspectives, such as accessing the gas market of Israel. Most recently, the Azeri-Turkish transit agreement signed between the two presidents in July 2010 opened a range of new opportunities for Azerbaijani gas to be delivered to not only Europe but also Middle East states – which include Syria and Jordan. This paper analyzes current and future export options of Azerbaijan.

The Future of Energy Production in Azerbaijan

The Azeri-Turkish transit agreement has given impetus for Western European companies to invest in the development and exploration of undeveloped Azerbaijani gas fields, such as “Shafag”, “Asiman”, “Umid”, “Nakhchevan”, “Absheron”, “Dan Ulduzu”, and “Ashrafi”, to name a few. Each of these undeveloped gas fields has an estimated volume of 200-300 bcm, which increases the estimated total gas volume of the country up to five trillion cubic meters according to SOCAR officials.¹ During the visit of BP President Tony Heyward to Baku on 6 July 2010, BP and SOCAR signed a commercial gas PSA on investment in the prospective gas fields “Shafag” and “Asiman” located 125 kilometers from Baku with reserves estimated at 300 bcm each. The Memorandum of Understanding on exploration

¹ “Total gas reserves of Azerbaijan may reach 5 trillion”, *Day.az*, 3 June 2010, <http://www.day.az/news/economy/212453.html>

and exploitation of the fields was signed between SOCAR and BP in London in 2009.² French companies are also restarting the Apsheron offshore gas project, suspended since in 2005.

Azerbaijan's State Oil Company (SOCAR), Total, and Gaz de France hold stakes of 40 percent, 40 percent, and 20 percent, respectively, in the "Apsheron" project. Gaz de France, a recent entrant, purchased its stake from Total. Azerbaijan's parliament ratified a production sharing agreement for "Apsheron" in 2009, with exploration drilling scheduled to start in September 2010, targeting a reservoir 7,100 to 7,200 meters under the seabed. Proven reserves are 300 billion cubic meters (bcm) of gas and 45 million tons of gas condensate, but the exploration drilling is expected to reveal larger volumes.³

SOCAR started exploration drilling at the prospective gas field "Umid", with proven reserves estimated at 200 bcm. The Italian company Eni is also showing great interest in Azerbaijani oil and gas projects, as well as transportation of Turkmen LNG gas to Europe via Azerbaijani territory. Paolo Scaroni, during his visit to Azerbaijan, restarted negotiations on exploration and exploitation drilling for the "Ashrafi" and "Dan Ulduzu" gas projects, both of which had been suspended in 1997 because the fields were not commercially attractive at that time. Participants in the PSA project in 1997 were BP, UNOCAL, SOCAR, ITOCHU and Delta, holding 30 percent, 25.5 percent, 20 percent, 20 percent and 4.5 percent respectively. Eni also suggested delivering six to eight bcm of Turkmen LNG gas by tankers to the Azerbaijani coast and then to Europe via the existing Georgia-Turkey-Greece pipeline.⁴

Following the opening of their office in Baku in 2009 German RWE signed a Memorandum of Understanding on exploration and development of the "Nakhchevan" gas field, located in the Azerbaijani sector of the Caspian Sea at a depth of 400-600 meters. The Exploration, Development and Production Sharing Agreement (EDPSA) is to be drawn up in the upcoming months, thus initiating the upstream activities of RWE in Azerbaijan. According to preliminary government estimates, the Nakhchevan field may contain up to 300 billion cubic meters of natural gas and 40 million tonnes of natural gas condensate.⁵

Today, 34 international companies from 15 countries work on the assortment of gas projects in the Azerbaijani sector of the Caspian Sea. According to the forecasts given by SOCAR, the total investment of the foreign companies by the PSA contracts will reach up to 60 billion dollars in the short run.

² "Socar and BP signed an agreement on exploitation of perspectives oil&gas fields", *Day.az*, 6 July 2010, <http://news.day.az/217694.html>

³ "Gaz De France Suez expressed an intent to buy gas in Azerbaijan", *Day.az*, 29 June 2010, <http://news.day.az/216553.html>

⁴ "Italians are coming back to the Caspian region", *Ng.ru*, 23 July 2010, http://www.ng.ru/cis/2010-07-23/6_italy.html

⁵ "Azerbaijan: New gas fields perspectives in Caspian sea", *Day.az*, 12 May 2010, <http://day.az/news/oilgas/208723.html>

The significant interest of European companies in Azeri gas projects and the successful development of Azeri gas fields are indicative of the fact that Azerbaijan's gas potential goes well beyond just having one of the biggest gas fields in the world. The giant Caspian field Shah Deniz –in its first and second phases of development– as well as the total gas volume of the country might be higher than expected. According to the president of SOCAR, Rovnag Abdullayev, by 2015 the total volume of gas production in the country will reach 35-40 bcm and Shah Deniz phase two will add some 16 bcm of gas per year after 2017. By 2018 the annual total volume of gas production will reach up to 50 bcm; from this amount, 15 bcm is considered for domestic consumption, and 30-35 bcm for export. With foreign investment towards exploitation of new gas resources in the mid-term might even increase this figure. This means that Azerbaijan will be able to meet the demand of a growing number of actual and potential customers in the medium and long run, as well as supply the Southern Corridor project, which heavily relies on Azerbaijani gas.

Export Options: Europe and the Southern Corridor

As is well known, contract prices for gas are fixed to oil and to a recognized proportion of time lag that make such prices more or less stable. However, for the last few years, it has become evident that this stability creates an obstacle for energy markets to respond to the fluctuations of the world economy. In addition, the gas business today heavily depends on geopolitical developments, which further result in quantitative and qualitative changes in the market. The biggest centers of energy consumption –namely the U.S. and the EU– have also changed their proportion of imports. Energy efficiency policy, other environmental policy commitments, and the European 20/20/20 plan –which envisages a 20 percent cut in EU's Greenhouse Gas emissions, 20 percent energy share from renewable sources, and a 20 percent increase in energy efficiency by the year 2020⁶– is aimed not only to decrease the import of gas to Europe in the short run, but also to make gas prices independent from oil. However, while Western European countries are capable of pursuing and developing their 20/20/20 policy technologically and financially, for Central and Eastern European countries as well as the Balkans, this policy is not feasible due to their financial incapability.

The EU countries, collectively comprising the world's greatest importer of gas: the percentage of gas that Italy imports is 32 and nearly 100 percent import countries like Estonia, Finland, Latvia, Lithuania, Bulgaria, Romania, Hungary, Slovakia and Serbia.⁷ Imports for Western countries are duly diversified, while new EU members from Central and Eastern Europe almost entirely depend on Russian gas. It

⁶ "EU climate package explained", *BBC World*, 9 April 2010, <http://news.bbc.co.uk/2/hi/europe/7765094.stm>

⁷ "Natural Gas Market Review", *Report*, International Energy Agency, <http://www.iea.org/textbase/nppdf/free/2008/gasmarket2008.pdf>

is worth mentioning that overdependence of any country on a particular oil and gas supplier is dangerous in terms of energy security. Bearing in mind that such dependence is unacceptable for these countries, they aim to diversify gas supply sources. In addition to being the best available policy option for maintaining energy security, such policy also diminishes geopolitical risks.

After the well-known conflicts between supplier and transit countries, energy efficiency policy as well as the large scale influx of unconventional gas into the EU market, prices for pipeline gas decreased and stabilized. The import of Russian gas to Europe decreased as well, and some objections to prices for long-term pipeline gas contracts occurred. The scale and application of unconventional gas –LNG and shale gas– is widening and thus the application of new technologies for exploration and exploitation of oil and gas from deep deposits – is modernizing and developing. For the last 10 years, European total gas imports from gas pipeline mains decreased notably. According to the Natural Gas Market Review (International Energy Agency), in 2008, Western European countries' collective gas demand was 472 bcm, whereas imports were 362 bcm, with Eastern Europe at 44 bcm and 38.7 bcm respectively.⁸

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According to the 2008 *World Energy Outlook* published by the IEA, by 2030, European gas imports will increase nearly twofold, which means more than 700 bcm annually.⁹ This rise in imports will be secured by LNG, shale gas and pipeline gas. However, such pipeline gas will not be that cheap, as it will be from complicated-to-reach Arctic fields in the North Pole, transported via long and difficult routes.

Over the last several years, shale gas overtook the European gas market. American shale gas entering the EU market led to the present surplus of pipeline gas, which will last until 2015 or 2016 and thus decrease the energy price and volume of purchasing. This surplus has also changed the parameters of transportation of gas. The essence of these changes is:

The cartel method of regulation of the oil market has raised the floor of the accepted price for delivery, making the building of relatively expensive tankers and

⁸ Ibid.

⁹ “World Energy Outlook”, *Report*, International Energy Agency, http://www.worldenergyoutlook.org/docs/weo2008/WE02008_es_eng-lish.pdf

specialized terminals for LNG economically viable. This has also made the transportation of huge volumes of LNG by tankers competitive with regard to the long-term contracts for transportation by pipeline mains. Furthermore, LNG transportation occurs via international waters, and is thus not impacted by the transit and geopolitical restrictions posed by other forms of transit over land.

Additionally, the spot transportation of gas –delivered not at long-term contract prices but at current market prices– is developing breathtakingly fast, and has already affected prices in the energy transportation world market.

According to the King&Spalding Company, there are 15 import LNG terminals with re-gasification plants operating in Europe at the moment. Five more terminals are under construction, and 27 others, including on the Romanian Black Sea coast in Constanta, are at various stages of proposals and planning. The projected volume of gas of the entire array of operational terminals is 132 bcm annually.¹⁰ However, according to the analytical company A.T. Kearney, while LNG will eventually supply a quarter of the EU's gas supply, this will not occur before 2020.

Meanwhile, some European states have already started feasibility studies for shale gas mining. The Bulgarian government, together with the U.S. Chevron Company, is working on the possible gas extraction from the shale mines located near the Bulgarian – Romanian border in the northeast, with an expected capacity of 25 billion cubic meters of gas. Bulgaria, with its annual average consumption of 2.9 bcm, currently imports 100 percent of its natural gas from Russia. However, once shale gas volumes are proven and extraction and mining commences, gas volumes will completely meet Bulgarian domestic consumption. The country may then become an exporter of unconventional gas to neighboring states.¹¹ Poland has also discovered shale gas fields with preliminary reserve estimates of 1.36 trillion cubic meters in the Northern and Central part of the country.¹²

In sum, the geopolitics of energy market has been undergoing marked changes recently. If the main geopolitical problems were once disagreement with transit states on transit prices and pipeline gas, today freedom of navigation, conditions for permitting LNG tankers to transit through international and territorial waters, and the exploitation of terminals are among the most important issues.

¹⁰ King&Spalding LLP, <http://www.kslaw.com/portal/server.pt>

¹¹ "Chevron presents shale gas project for Bulgaria", *NewEurope*, 18 July 2010, <http://www.neweurope.eu/articles/Chevron-presents-shale-gas-project-for-Bulgaria/101961.php>

¹² "Polish Faktor", *Ng.ru*, 31 May 2010, <http://www.ng.ru/printed/241024>

Nabucco

Because of the sanctions imposed on Iran by the EU and the U.S., Iran is automatically disregarded as a potential supplier for the Nabucco project. This fact also eliminates the possibility of transporting Turkmen gas to the Nabucco pipeline via Iran, which is necessary in the absence of a Trans-Caspian pipeline. As such, now there is even more necessity to build a Trans-Caspian pipeline for Turkmen gas to be delivered to Europe through Azerbaijani territory.

Although Ashgabat has already promised to deliver ten bcm to the EU for the project, the promise cannot be taken seriously until there is a pipeline connection between Central Asia and Europe. It is in the interest of Ashgabat to keep the matter of its participation in the project open, as it is a good argument for attaining a better price for its gas export to Russia and China.

It is not yet clear if Turkmenistan has enough surplus of gas for any new route, having made a commitment to China for up to 40 bcm per year, exporting up to 20 bcm to Iran and up to 50 bcm to Russia per annum. One of the world's largest undeveloped deposits the South Yolatan-Osman natural gas field, which is likely to hold six trillion bcm of gas according to the British company Gafney Cline&Associates, needs enormous investment for development, exploitation and extraction. It will take years before this is accomplished.

According to a SOCAR official, by 2018, Azerbaijani gas production is set to reach more than 50 bcm annually, including gas from the Shah Deniz second phase of development. From this amount, 30-35 bcm will be exported and 15 bcm will be reserved for internal consumption. Azerbaijan currently exports up to one bcm gas to Georgia, one bcm to Russia, one bcm to Iran and six bcm to Turkey annually. The surplus of Azerbaijani gas by 2018 is envisioned to reach 21-26 bcm annually. As such, Azerbaijan will be able to guarantee the first stage, and supply ten bcm for Nabucco. However, this will not occur before 2017, the year when the second stage of Shah Deniz will be operational. The agreement signed between Azerbaijan and Syria on export of some 1.5 bcm of gas for Syrian market by Pan-Arabian pipeline once the fraction between Turkey (Kilis) and Syria (Homs) will be constructed by the end of 2011, Egypt will be able to deliver some amount of gas for Nabucco in mid run. According to the BP Statistical Review of *World Energy* 2009, the Shah Deniz gas field holds 1.2 tcm. Its exploration is managed by an international consortium under a PSA, the parties of which are BP Amoco (operator-25.5 percent), Statoil (25.5 percent), SOCAR (ten percent), LUKOil (ten percent), the Iranian company NIKO (ten percent), Total (ten percent), and Turkish Petroleum Overseas Company Limited (nine percent).

The “open season” process, which allows potential shippers to express their interest in the pipeline to make firm bookings, will start at the end of this year. According to Nabucco Gas Pipeline International GmbH Spokesperson Christian Dolezal, in the open season, the transport capacity booking will start and transportation contracts will be concluded.¹³ 15 bcm per annum will include all three parties on equal conditions. Another 50 percent of Nabucco’s transportation capacity will belong to Nabucco consortium shareholders.

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Like all major pipelines, Nabucco is not only of economic but also of geopolitical importance. Nabucco is supported by the European Commission, however it is not a project of the European Union but of the Nabucco consortium. If realized, it will provide no more than ten percent of the EU gas import. As there is no common European gas market, the biggest and most influential EU countries have no direct interest in the construction of Nabucco. Therefore, it is important that Nabucco will transport gas to the countries with the lowest level of diversification of deliveries – South-East and Central Europe. But without some sort of geopolitical stimulation that would add value to the project, it is unlikely that all the stakeholders will be equally interested in its realization. The new Russia-Byelorussia transit issue could be an impetus, but it has not affected the decision making process so far.

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ITGI

The Turkey-Greece-Italy Interconnector (ITGI) is the most realistic and viable project among all the projects of Southern Corridor. The Azerbaijan-Turkey transit gas agreement stimulated intense negotiations between Baku and Rome on the transportation of Azeri gas to the Italian market through ITGI. These negotiations started in June 2010, and an agreement on prices is expected to be reached within the year. Afterwards, the construction of the pipeline will begin. The Protocol of

¹³ “Nabucco expects open season to launch in late 2010”, *AllBusiness*, 1 June 2010, <http://www.allbusiness.com/trends-events/trends/14560007-1.html>

Intent has already been signed in Ankara in June, between the Turkish BOTAŞ, Italian Edison and Greek Depa parties to the project.

The Intergovernmental Agreement for ITGI was signed in Rome in 2007, and is currently at the stage of negotiating the respective shares of the companies party to the project. The pipeline annually will transport 11.6 bcm, with maximum anticipated capacity of 12 bcm.¹⁴

The exploitation of the pipeline will start in 2015. The project will also cover the modernization of the currently operating Turkey-Greece Pipeline and the construction of a new Greece-Italy Pipeline via the Poseidon sub-sea pipeline, which will cross the Adriatic Sea and be united into a single system afterwards.

For Baku, ITGI is a good opportunity to enter the Southern European market and to strengthen its position there. Once the EU has a common market, SOCAR will be able to enter further into Central Europe, thus easing European energy pressures. Currently, Turkey is able to export gas from Azerbaijan via ITGI, which connects Turkish-Greek grids.

Bulgaria has already showed an interest in joining the project and buying one bcm gas from the pipeline, demonstrated by the fact that a political agreement has been reached by the presidents of Turkey and Bulgaria. This intention became possible after the European Commission decided to allocate 20 million euros to connect the Bulgarian pipeline system to the ITGI pipeline.

The 520 kilometer long Trans-Adriatic Pipeline is the shortest and cheapest (1.5 billion euro) pipeline in the Southern Gas Corridor, which is designed to deliver gas from the ITGI pipeline starting in Greece near Thessaloniki, crossing Albania and the Adriatic Sea and then coming ashore in Italy near Brindisi. The pipeline will carry some ten bcm annually with the possibility of doubling its capacity in the future, depending on throughput.¹⁵ TAP meets requirements of Trans-European Energy Network (TEN-E) guidelines, since once realized it will contribute to the EU's objectives and policies aimed at diversification of energy supply, and be eligible for EU financial support.

Via the TAP pipeline, Azerbaijan as a supplier will be able to enter more European countries' markets such as Albania, Macedonia, Slovakia, Kosovo, Bosnia and Herzegovina, and Switzerland, notably since some EU countries have begun establishing energy transport links and interconnectors of their own. The European

¹⁴ "The realization of the ITGI project started in Turkey", *Rusenergy.com*, 18 June 2010, http://www.rusenergy.com/ru/news/news.php?id=52549&phrase_id=171231

¹⁵ Trans-Adriatic Pipeline, http://www.trans-adriatic-pipeline.com/tap-project/concept-2_.html

Commission allocated 2.3 billion euros for the realization of 43 energy projects, all of which are aimed at restoring the EU economy as well as strengthening the energy supply security by creating trans-border infrastructure and contributing to the single pipeline network.¹⁶ It is expected that Italy will sign soon a transit agreement with Turkey and supply commitment agreement with Azerbaijan.

In Baku, top officials take the position that the consortium of each of these projects has to present the commercial price outlook for each pipeline. SOCAR wants to know how much its gas will cost in every state along the pipeline, taking into account transit prices, taxes and other costs. Once the prices for each pipeline are presented, SOCAR will be able to choose the best of the available options. If this option is ITGI and TAP then the entire remaining volume of Shah Deniz 2 phase of development might be committed to supply ten bcm gas volumes via TAP, leaving no extra gas for other projects of Southern Corridor.

Export Options: Russia and South Stream

In 2009, Azerbaijan began exporting 500 million cm gas to Russia. It is exporting one bcm in 2010, and will export two bcm from 2011 onward through the Baku-Novo Filya pipeline, for use in Russia's North Caucasus territories.¹⁷ Since there is no upper limit to export quantities, Azerbaijan might increase its exported gas volume to Russia in the future at its discretion. The sale-and-purchase contract was signed in October 2009 for the period of 2010-2015 with the possibility of prolongation of the contract, especially if the Southern Corridor is delayed.

From a commercial and economic point of view, the gas deal between the two countries is profitable. First, the price that was agreed between SOCAR and Gazprom suits both sides and fits the European netback price for 2010. During the preliminary discussion of the agreement in 2009, a sale-and-purchase price of 350 dollars per thousand cubic meter was proposed, which is the highest Russia has ever paid for gas imports. To compare, Gazprom purchased gas from Turkmenistan for the price of 300 dollars, Uzbekistan, 326 dollars, and Kazakhstan, 290 dollars in 2009. The actual 2010 price Gazprom pays per 1,000 cubic meters of gas from Turkmenistan is 222 dollars, Uzbekistan, 220 dollars, and Kazakhstan, 230 dollars, whereas to Azerbaijan, it is 244.5 dollars.¹⁸ It should therefore be beared in mind that it could prove to be even more commercially profitable for Azerbaijan to export to Russia than to export to Europe.

¹⁶ "European Commission allocated 2,3 billion Euros for the realization of 43 energy", *Europa.eu*, 4 March 2010, <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/231&format=HTML&aged=0&language=EN&guiLanguage=en>

¹⁷ "Russian Gazprom expressed its readiness to purchase total volume of Azerbaijani gas", *Day.az*, 19 June 2010, <http://www.day.az/news/economy/215136.html>

¹⁸ Sergey Glazkov, "New Options Emerges in Central Asian Natural Gas Competition", *Caspian Investor Journal*, Vol.13, No.6 (June/July 2010,) p. 13.

Secondly, the infrastructure between Azerbaijan and Russia already exists, and there is no need for additional investment in the building of new pipelines. Baku-Novo-Filya is a part of the gas transportation system of Azerbaijan delivering gas from Baku to the Russian border by the Caspian coast. The total original volume capacity of the pipeline is 13 bcm annually, whereas the operating capacity is around five bcm. Novo-Filya is a part of Mazdok-Makhachkala-Gazimahomed pipeline, of which the Azerbaijani side is being prepared for possible reverse-use as a gas export pipeline to Russia. Moreover, the geographical proximity between the two countries helps to save money: the pipeline runs approximately 200 kilometers, which makes the transportation much cheaper and easier.

Third, there are no transit states between Azerbaijan and Russia and the two countries save on transit expenses. That makes the netback profit for Azerbaijan much higher than export to the European market, where Baku has to pay transit fees to at least two countries – Georgia and Turkey.

Fourth, while awaiting the realization of the Southern Corridor, Azerbaijan is using the opportunity to export its gas surplus until 2017 when Shah Deniz 2 will come on stream. Consequently, the time frame of Azerbaijani gas export to Russia does not impinge upon the Southern Corridor project. For Russia, it is extremely difficult and expensive to deliver gas from its northern Siberian fields or from Central Asian states to the North Caucasus, since the distance is about 3000 km.

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Apart from commercial profitability, according to the doctrine adopted by the Azerbaijani government, Baku is highly interested in promoting stability and security in the region as well as the stability and well-being of the neighboring countries. Yet politics is trying to have the last word. Since the Memorandum of Understanding between SOCAR and Gazprom was signed, there is speculation in European media that Russia is pre-empting Azerbaijani gas supplies for the EU-backed Southern Corridor in favor of its rival South Stream pipeline. It is not accidental that Alexey Miller expressed Gazprom's readiness to purchase the total quantity of Shah Deniz 2 gas at market price based on a long-term contract. The annual gas consumption of the North Caucasus region is two bcm, meaning it would be

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illogical for Gazprom to buy gas at volumes exceeding two bcm. The fact that Baku is trying to court Russia and the EU at the same time leaves an open door for cooperation with Russia as well as with the West, according to Azerbaijan's multilateral and balanced policy.

There are several fractions of two rival pipelines –namely the South Stream and Southern Corridor– that intersect. For example, the south fraction of the South Stream pipeline is being considered to run from Bulgaria to Greece, providing some 5-8 bcm gas annually for the Greek market, based on its annual gas consumption for 2008 at 12 bcm. From Greece the pipeline is envisaged to run to Southern Italy through the Ionian Sea, providing some volume of gas for this country on its way. Gazprom has already signed an agreement with the Greek national gas transportation system company DESFA in Moscow on the construction of the Greek part of the pipeline, with an estimated cost of one billion dollars¹⁹ within the South Stream project. Still, it is uncertain which side will finance this portion of the pipeline.

The ITGI and TAP pipelines are considered to deliver the same amount of gas to Greece and Italy by the same route, mainly from Azerbaijani gas reserves. It is possible that Azerbaijan might lose those Southern European markets if the South Stream pipeline is completed before ITGI and TAP; thus there will be no need to build the latter pipelines. The completion of the South Stream project is due in 2015, whereas ITGI and TAP is 2017, the date when the Shah Deniz second phase of development –upon which these projects depend– will come on stream. However, it is worth mentioning that it is still not identified where the gas will come from for South Stream, either in Russia itself or elsewhere, to supply its declared annual capacity of 63 bcm nor is it clear who will finance its declared cost of 25 billion dollars.

Export Options: Iran and the North-South Axis

Azerbaijan is currently exporting one bcm of gas to Iran. After the EU and U.S. imposed sanctions against sales of gasoline and other refined oil products to Iran, investments in Iran's energy sector, and sales of equipment for exploration, production, and processing of oil and gas,²⁰ the future of Azerbaijani gas exports to Iran was uncertain. Although it was the West which imposed the sanctions, it remains to be seen who will be better off in their aftermath. As a result of the sanctions, the EU lost the opportunity to develop the South Pars gas field, which could have been linked to the Nabucco pipeline.

¹⁹ "Russia and Greece agreed on South Stream", *Lenta.ru*, 7 June 2010, <http://lenta.ru/news/2010/06/07/stream/>

²⁰ Vladimir Socor, "Moscow-Tehran Oil and Gas Roadmap to Circumvent Sanctions on Iran", *Eurasia Daily Monitor*, Vol.7, No.139, 20 July 2010, http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Btt_news%5D=36644

Azerbaijani gas exports to Iran, however, are subject only to necessity. It is common knowledge that since 2004, Azerbaijan has been realizing a natural gas swap with Iran, transferring about one million cubic meters of gas daily from Azerbaijan through Iran to the Nakhchivan Autonomous Republic for 25 years. Additionally, in November 2009, a memorandum between SOCAR and NIGEC was signed in Baku on deliveries of Azerbaijani gas to Iran from 2010 onwards. Azerbaijan and Iran are connected via the Qazimammad-Astara gas pipeline at a length of 1474.5 kilometers. Its maximum capacity is ten billion cubic meters per annum.²¹ Both sides are expected to sign a long-term contract on increasing the volume of exported gas up to one to two bcm annually.

According to a SOCAR official, sanctions imposed on Iran by the U.S. and the EU will not affect the energy relations between Iran and Azerbaijan. Given the fact that the Azerbaijani enclave of Nakhchivan is isolated due to Armenian aggression, Azerbaijan is unable to provide natural gas to its enclave, and therefore Baku needs to realize swap operations with Iran. Baku has already informed Washington of the issue and the White House expressed its agreement. The other option of delivering gas to the enclave is via Turkey by SCP until Erzurum, and from Erzurum to Nakhchivan. However, there is no pipeline connecting Nakhchivan with Turkey and some financial investment will be needed for the construction of such a pipeline. SOCAR is planning to construct the Iğdir (Turkey) - Sederek (Nakhchivan) pipeline once feasibility studies are completed.

Moreover, up to one bcm of gas is being exported to Iran for domestic consumption that will help tackle the gas supply deficit in the country, particularly in the western and northwestern provinces. Both countries are planning to increase the exported volume of gas in the mid and long run and are currently conducting works on the building of the new Sangachal-Azadkend-Astara pipeline. This pipeline will allow transport of up to 18 million cubic meters gas per day and up to 6.57 cubic meter per year. The existing pipeline connecting the two states is designed to transport gas under low pressure and makes it impossible to increase gas exports to the South.²² In the event that Baku accepts the sanctions and stops its export of gas to Iran, Azerbaijan will face commercial losses from losing the market for its growing gas surplus, and will have to receive compensation for such losses. What the West could offer Baku as quid-pro-quo is left to speculation.

In its efforts to widen its export options and access as many markets as possible, Azerbaijan reached an agreement with Syria to deliver 1.5 bcm of natural

²¹ "Iran, Azerbaijan sign a short-term gas contract", *IranOilGas*, 14 January 2010, <http://www.iranoilgas.com/news/details2/?type=news&p=archive2010&newsID=5212&restrict=no>

²² "Azerbaijan to build new pipeline to export gas to Iran", *Trend.az*, 12 February 2010, <http://en.trend.az/capital/pengineering/1637907.html>

gas annually from 2011²³ onward via the Arabian Gas Pipeline (AGP), which currently links Egypt with Jordan, Syria, and Lebanon. The 62 kilometer Aleppo-Kilis pipeline connecting Turkey and Syria will deliver Azerbaijani gas to Syria and Jordan, and in the short run the pipeline to Lebanon as well will need to be repaired for reverse use. The agreement with Syria on delivering 1.5 bcm gas annually has made Azerbaijan a part of president Bashar-al-Assad's "Four Seas Strategy" which attempts to turn Syria into a trade hub between the Black Sea, Mediterranean, Persian Gulf and Caspian Sea, aligning Turkey, Iran and Azerbaijan.

As Azerbaijan increasingly becomes a Eurasian energy nexus, it will significantly contribute to energy security in the region.

Furthermore, Azerbaijan could enter the Israeli market via the pipeline that would connect Syria with northern Israel in the event that the Southern Corridor project is delayed. Thus, Baku will be able to access Middle East markets and continue to consider all of the possible market options.

Conclusion

With its current and growing gas export potential, Azerbaijan is envisaged as the main gas supplier country in all of the Caspian-gas-to-Europe projects, and will be the source feeding the most important energy pipelines linking the South Caucasus, Central Asia, Middle East, North Africa Russia and Europe. As Azerbaijan increasingly becomes a Eurasian energy nexus, it will significantly contribute to energy security in the region. It will also bring political stability, since the countries that are in the same energy security boat will be obliged to be politically correct towards each other.

It is now time for the international energy policy and strategy of Europe to be directed towards developing the integrated single market –and energy transport infrastructure– that will link suppliers from the South Caucasus, Central Asia, Middle East and North Africa with European consumers. Within this set of new market structures and transit options, Azerbaijan's energy policy and geographic location have positioned it well to play the role of a significant energy actor.

²³ "Azerbaijan, Syria agree to sign gas agreement", *Trend.az*, 30 June 2010, <http://en.trend.az/capital/pengineering/1712977.html>