Turkey's Energy Strategy and the Southern Gas Corridor

Emre Iseri
Alper Almaz
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ASST. PROF. EMRE ISERI*,
ALPER ALMAZ**
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1. INTRODUCTION

Access to reliable, affordable and environmentally friendly energy resources is essential for modern economies. The developed/developing world’s heavy dependency on energy together with the asymmetric global distribution of energy reserves has underscored the significance of multi-dimensional concept of energy security that cannot be addressed at a national level alone.¹

C. Egenhofer, K. Gialoglou, and G. Luciani posit that there are “short-term” (supply shortages due to accidents, terrorist attacks, technical failure, etc.) and “long-term” (absence of infrastructure/framework for creating strategic security against major risks such as non-delivery due to political or economic reasons) energy security risks². For the purposes of this paper, we will emphasise “procurement diversification” in order to address those short-term and long-term energy security risks.

Arguably, those energy security risks threaten the flow of natural gas even more than oil, due to three main factors: 1) Its rapidly increasing its share in the market because of its relatively clean and efficient combustion; 2) Natural gas reserves are highly concentrated in a few countries (Russia, Iran, Turkmenistan and Qatar); and 3) Given the high costs of Liquefied Natural Gas (LNG) technology, the main method for natural gas transportation is through pipelines over relatively short (though growing) distances.

“Procurement diversification” through ensuring the flow of regional alternative natural gas reserves in the Caspian Basin is a viable strategy to address those energy risks, in particular the long-term ones. Indeed, in the immediate aftermath of consecutive gas disputes of 2006, 2008, 2009 crises with Russia, the European Commission (EC) initiated the Southern Gas Corridor or so-called the New Silk Road to bypass Russia

¹ Asst. Prof. Emre Iseri, Department of International Relations Yasar University, Izmir, Turkey. E-mail: emre.iseri@yasaredu.tr
² ** Research Assistant Alper Almaz, Department of International Relations Yasar University, Izmir, Turkey. E-mail: alper.almaz@yasaredu.tr

in transporting gas supplies from Caspian and Middle Eastern regions.

In this context, Turkey has become a critical transit country for transporting Caspian/Middle Eastern resources to Europe, and the Trans Anatolian Pipeline (TANAP) is the key export route for Azerbaijan’s Shah-Deniz II field’s natural gas reserves. The Shah Deniz Consortium (SDC) members’ selection of the Trans Adriatic Pipeline (TAP), rather than the Nabucco West, as the European route of the Southern Gas Corridor (Map 1) has been an important milestone in the broader context of this process. There are also plans to link Middle Eastern natural gas resources to the Southern Gas Corridor.

Against this backdrop, this paper argues that the Southern Gas Corridor is likely to bolster Turkish two energy targets: meeting its growing energy interests and becoming an energy hub. Moreover, considering its scalability, the SGC will contribute the EU’s ambition to diversify away from Russia and enable Azerbaijan to enter into the Western Balkan Energy Market. In order for those prospects to materialize, several risks associated with the Southern Gas Corridor should be addressed: specifically, the volume of gas, and security concerns.

2. THE SOUTHERN GAS CORRIDOR IN BRIEF

Before delving into those energy prospects and risks, this paper will briefly assess the Southern Gas Corridor. The first “gas war” in 2006 between Russia and Ukraine and subsequent gas disputes between the same parties (in 2008 and 2009), along with the Russia and Georgia War of August 2008, jeopardised EU energy supplies. In this context, for the purposes of procurement diversification, Europeans have begun to focus on non-Russian resources in
the Caspian Region, particularly in Azerbaijan (Table 1), which has already proved its capability in huge energy projects.\textsuperscript{3}

In order to decrease dependency on Russia and undermine Moscow’s ambitions to pursue “resource nationalism”, the Council committed itself to “develop the Union’s energy relations with producer and transit countries with a view to securing stability of supply and diversifying its energy sources and supply routes.”\textsuperscript{5} The Commission also recognized the construction of the Southern Gas Corridor as energy security priority of the Union.\textsuperscript{6} Hence, in 2011 a joint declaration on the Establishment of the Southern Gas Corridor was signed between Azerbaijan and EU. Indeed, Barroso underscored that Azerbaijan is “vital for the security and diversification of our energy supply and demand.”\textsuperscript{7}

The Joint Declaration gained further support from the Trans Anato- lian Gas Pipeline (TANAP) project, which is led by SOCAR (with an 80% share), BOTAS (15%) and TPAO (5%). TANAP was officially announced with the signature of the memorandum of understanding between Azerbaijan and Turkey in December of 2011. Then, the Turk- ish - Azerbaijani Intergovernmental Agreement on the realization of TANAP was signed in Istanbul on 26 June 2012. This agreement has provided a general framework for gas transportation and pricing across

\begin{center}
\begin{tabular}{|l|c|c|c|}
\hline
 & Reserves & Production & Exports to EU \\
\hline
Azerbaijan & 31.5 & 0.6 & 0.0\textsuperscript{a} \\
Kazakhstan & 45.7 & 0.7 & 0.0 \\
Turkmenistan & 618.1 & 2.3 & 0.0 \\
Uzbekistan & 39.7 & 2.0 & 0.0 \\
\hline
TOTAL & 735.0 & 5.6 & 0.0 \\
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\textsuperscript{3} Since gaining independence from the Soviet Union, Azerbaijan has carried out significant and successful energy pipeline projects, through which it has become a reliable oil and gas supplier for the EU, Turkey and Georgia. The Baku-Tbilisi-Ceyhan (BTC) oil pipeline and Baku-Tbilisi-Erzurum (BTE) natural gas pipeline which runs from Azerbaijan through Georgia to Turkey are the largest projects through which Azerbaijan has brought new energy supplies to the world energy market.

\textsuperscript{4} See conversion table for trillion cubic feet (tcf) and billion cubic meters (bcm), available at: http://www.iea.org/stats/unit.asp


Turkey. As a part of Shah Deniz Stage II, owned by a BP-led consortium that also includes Statoil (Norway), SOCAR (Azerbaijan), LUKOIL (Russia), TOTAL (France) and TPAO (Turkey), TANAP will realize additional drilling facilities and offshore gas platforms, sub-sea wells, as well as two pipelines carrying natural gas through Georgia and Turkey to Europe.

The project, which is estimated to cost around $10 billion, will be operational in 2019. At the first phase, 16 billion cubic meters (bcm) of gas each year is expected to be transferred from the Shah Deniz Stage II field through Georgia to Turkey.\(^8\) Over the following years, the capacity is expected to rise to 23 bcm in 2023 and to 31 bcm in 2026. Of those 16 bcm, 6 bcm will be used by Turkey. Europe will get the remaining amount. At this point it is necessary to underline that Turkey has been given the right to re-export that 6 bcm; the country’s other energy suppliers, namely Iran and Russia, do not allow Turkey to re-export. This right to re-export will surely contribute to the achievement of Turkey’s energy strategy. What is more, the project will not only enhance the importance of Azerbaijani energy resources in the world energy market, but also bolster EU energy security.

Before June 2013, there was a debate about which proposed project should be chosen to pump gas from Turkey to Europe. Three projects, namely, Nabucco West, ITGI and TAP were competing with each other to complement TANAP. In the end, TAP whose shareholders were Swiss Axpo, Statoil and E.ON won the tender to deliver 10 bcm Azerbaijani gas from the western border of Turkey to Italy via Greece and Albania. TAP has been welcomed by EU officials. Indeed, EU Energy Commissioner Guenther Oettinger underscored the significance of the Caspian energy resources by saying that “we have a definite commitment from Azerbaijan that gas will be directly delivered to Europe through a new dedicated gas pipeline system. Whether the system consists of two gas pipelines - TANAP and TAP - or one single pipeline as earlier projects had foreseen - does not make any difference in terms of energy security. We now have a new partner for gas, and I am confident that we will receive more gas in the future.”\(^9\) One can here conclude that the EU is willing to cooperate more with Azerbaijan and other potential suppliers in the region, most notably Turkmenistan, to import additional gas.

In addition to the three pipelines already transporting Azerbaijani gas to Turkey and Europe and bypassing Russia, TANAP and TAP as parts of the Southern Gas Corridor will increase the volume of natural gas flowing to Europe. As a result, the EU will enjoy greater energy security through decreased dependency on Russian pipelines and diversification of energy routes.

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8. Map 1

In light of this brief summary of the Southern Gas Corridor, it is now possible to examine the prospects and challenges for net energy importer Turkey, with its pledge to become a regional energy hub.

3. TURKEY’S ENERGY PROSPECTS

Turkey has a unique geographical position: it is located in close proximity to 73% of the world’s proven oil and 72% of gas reserves, in particular the Middle East and the Caspian Region. On the other hand, Turkey and its western neighbours have limited energy resources resulting in high levels of energy imports and over-dependency on foreign supplies. Owing to its strategic location and energy needs of neighbouring countries and the EU, Turkey can be regarded as a natural bridge between importer and exporter countries. Furthermore, it can be asserted that Turkey is of great significance to European energy security, as it has the potential to diversify supply sources and routes. It can be further argued that Turkey plays a pivotal role in regional politics as an energy transit country for oil and gas resources coming from the Caspian Region, Russia or the Middle East to Europe. However, there has been a debate over whether Turkey is an energy hub, a term which refers to “a central market place where, in addition to pipelines, storage facilities, refineries, terminals, petrochemical units and other energy-related businesses may be located which offer jobs and boost the local economy.”

Another debate that has also arisen from TANAP is its possible contribution to Turkey’s role in energy politics.

According to the 2013 Report of International Energy Agency, Turkey imported 98% of its total gas demand in 2011. Of this 98%, 58% was supplied by Russia, followed by Iran (19%), Algeria (9.5%) and Azerbaijan (8.7%). In order to meet its growing hunger for natural gas (Figure 1), based on the Turkish Energy Strategy document, it the government is aiming to become an energy hub with the objective of easing Turkish energy insecurity and creating economic opportunities through pipelines construction, as well as gaining political influence in the region in order to realize its foreign policy aims, including smoothing the EU accession process.

Considering this analysis of Turkey’s efforts and the related official statements, one can argue that Turkey is becoming an energy hub rather than just a transit country as a result of the major pipeline projects that are

Figure 1:

Natural gas consumption and production in Turkey, 2001-2011


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either already in place, under construction, or planned. The main gas pipelines that are considered to have the potential to transform Turkey into an energy hub are: the Baku-Tbilisi-Erzurum (BTE) gas pipeline, the Blue Stream gas pipeline – along with its proposed second leg- running under the Black Sea from Russia to Turkey. (Map 2)

Considering Turkey’s energy strategy, the volume of gas planned to be transported via TANAP and TAP, and the pipelines in operation, one can assert that the two new pipeline projects are likely to support Turkey’s aspiration to become an energy hub, as new infrastructure is to be built for storage, refining and logistics.\(^{13}\) This will help Turkey realize its goal of becoming an energy hub. Besides, the route that the two pipelines follow offers some advantages for Turkey. First, it is likely to lessen dependency on Russian energy routes and enhance Turkey’s and EU’s energy security. Second, the natural gas market is not well developed in the Western Balkan countries such as Albania, Croatia, Bosnia Herzegovina.\(^{14}\) Given that TAP will pass through these countries, they can be regarded as a new energy market for Turkey and Azerbaijan. Also, through buying 66% of DESFA, Azerbaijan will gain significant assets and political leverage in Greece. Hence, one can conclude that both advantages also will bring Turkey a step closer to achieving its aspirations of becoming an energy hub to meet Europe’s growing demand.

Similarly, the EU does not have enough domestic energy resources to meet its energy demand; this is why 84.1% of oil and 64.2% of natural gas were imported from outside Europe in 2009.\(^{15}\) The majority of natural gas is imported from either Russia or through pipelines owned by Russia. (Figure 2) Moreover, according to future projections by the EU, import dependence in the case of oil and gas will soar by more than 80% by 2035, significantly jeopardizing the energy security of the EU.\(^{16}\)

The energy outlook of the EU and Turkey reveals two problems. First, there already is or will be a problem with energy security due to the high level of dependence on foreign suppliers. Second, among them, Russia is the biggest energy provider to the involved parties - the least reliable source, thereby increasing energy insecurity. For instance, the recent dis-

\(^{13}\) Azerbaijani State Oil Company (SOCAR) and Turkey’s Turcas signed an agreement to build a refinery in Izmir which could process 10 million tons of crude oil. “Azeris, Spaniards Ink $4.8 Billion Turkish Refinery Deal”, Hurriyet Daily News, Available at: http://www.hurriyetdailynews.com/azeris-spaniards-ink-48-billion-turkish-refinery-deal.aspx?pageID=238&nid=47258 (21-09.2013).


utes between Russia and Ukraine on gas pricing and Ukraine’s gas debt to Russia resulted in interruptions to the gas flow to the EU. It is thus understood that energy dependency on Russia is likely to produce more interruptions in the future. Within this context, the EU has reiterated the importance of policies targeted at enhancing energy security by diversifying its energy supply routes, source countries and energy mix. Therefore, it can be claimed that pipeline projects bypassing Russia are welcomed by both the EU and Turkey.

The EU is aware that in addition to Russia, the Caspian Region and the Middle East have considerable amount of gas and oil reserves that can help diversify supplies for the EU. Azerbaijan, Iran, Turkmenistan and Iraq are other resource-rich countries. They can be regarded as potential energy suppliers for the EU’s pipelines projects; none of these go through Russia. For example, TANAP and TAP, as parts of the Southern Gas Corridor, will transport Azerbaijani gas to Europe through Georgia and Turkey. Both projects will reduce the EU’s dependency on Russia’s natural gas and pipelines. When the project is fully completed in 2026 it will transmit 31 bcm natural gas to the EU and 6 bcm (maybe more) will be utilized by Turkey. This huge volume is very likely to ease the energy insecurity both in Turkey and Europe. In addition, the establishment of new national transit line networks can be considered as an alternative line for future pipeline projects carrying more Azerbaijani gas to the European and Turkish energy markets.

Another important point to underscore is that while the Russian pipelines have created dependency, TANAP and TAP will create interdependency between Turkey, Azerbaijan and the EU, due to the Azerbaijan’s landlocked situation, which prevents it from selling its gas reserves directly on the global market. In other words, Turkey and the EU need Azerbaijan and Azerbaijan needs Turkey and EU in order to sustain economic, political and social relations. Therefore, one can contend that increasing interdependency in terms of energy matters is likely to boost economic development in Turkey and Azerbaijan, in addition to their political and social stability.

4. RISKS FOR THE SOUTHERN GAS CORRIDOR

The Southern Gas Corridor needs to address several short-term and long-term energy security risks in order to maximise its potential output. While short-term risks are related to “energy terrorism”, the long-term risks are mainly related to the volume of gas to be exported.
4.1 SHORT-TERM ENERGY SECURITY RISKS

In order to properly implement TANAP and TAP there must be a degree of stability and security within the transit countries pipelines. When the conflict broke out between Russia and Georgia in August 2008, BTE and BTC were closed due to Russia’s heavy bombing campaign, which targeted key locations in Georgia such as bridges, railroads etc. This in turn jeopardized the energy flow from Azerbaijan. The closure puts into question whether Georgia is a secure energy bridge for transporting Caspian energy resources to Europe. Although the military tension has been largely eliminated, the possibility of another skirmish in the region remains open, since Georgia lost its 20% of its original land. Fortunately, since the new PM, Bidzina Ivanishvili, came to power, he has underlined the importance of Russia-Georgia relations. He stated in an interview that, "relations will be restored, and we must do it...I will invest all forces so that relations with our big neighbour will be restored. I think we will be successful." A similar attitude – albeit less enthusiastic- can be observed in political statements delivered by Russian authorities. Hence, it is hoped that the rapprochement attempts will ameliorate security problems in the region, which will also contribute to the security of TANAP.

A further security challenge arises when we discuss TANAP’s route in Turkey. TANAP will transmit natural gas from Azerbaijan via conflict zones where the Kurdistan’s Working Party (PKK) has engaged in – allegedly as a sub-contractor – several sabotage activities. True, the security situation in Turkey has improved considerably, assisted with a dramatic decline in PKK’s activity owing to the democratic Kurdish Initiative. However, developments in Turkey’s immediate neighbourhood in the Middle East, particularly among the Kurdish populated regions in Syria and Iraq, al-Qaeda-affiliates, and several other terrorist groups, there is a heightened risk of aggression which could jeopardise the operation of regional pipelines.

4.2 LONG-TERM ENERGY RISKS: IS THERE ENOUGH GAS?

The second challenge is related to uncertainties about reserves filling the Southern Gas Corridor pipelines, namely TANAP and TAP. When these pipelines are in operation 6 bcm of gas will be given to Turkey, and 10 bcm will be transported to Europe. However, Turkey’s energy demand is projected to rise to 70 bcm by 2030; therefore, additional gas will be needed to meet Turkey’s growing domestic energy demand. In this context, one can assert that problems are likely to occur due to the limited supply of Azerbaijani gas. To resolve this problem, energy supplies from other

countries in the Caspian Region and the Middle East can be utilized. Yet, it should be noted that due to the EU and US sanctions on Iran, and political instability in Iraq, neither country is considered an acceptable contributor to the Southern Gas Corridor in the foreseeable future. At this point, gas from Turkmenistan and/or Kazakhstan could complement the Azerbaijani gas flowing through the Southern Corridor. The EU and Turkey have been trying to encourage these countries to take part in this project.

If they want to achieve economic viability, both the TANAP and TAP projects must eventually outgrow their current sources of gas. TANAP, for example, will expand capacities from 16 bcm to 31 bcm by 2026, while the Shah Deniz field can only supply a maximum of 25 bcm. The required expansion via new gas sources, however, will encounter major obstacles, including: the qualitative differences between Turkmen and Azerbaijani gas; the lack of governmental support for a Trans Caspian pipeline in Turkmenistan; legal issues related to the status of the Caspian Sea; and the political situation in Iran.¹⁹

**CONCLUSION**

The completion of the Trans Anatolian Pipeline and Trans Adriatic Pipeline Project by 2019 raises both benefits and challenges for Azerbaijan, Turkey and the EU. First of all, the volume of gas that TANAP is projected to carry will likely to support Turkey’s energy hub ambitions. Within the scope of the project, new storage and refining facilities and logistics systems will become operational. Furthermore, Turkey has the right to re-export/store 6 bcm of gas from the pipeline. Both

the construction of new infrastructure for transmitting gas and right to re-export it are of particular importance to the trajectory of its energy ambitions. Therefore, it can be concluded that Turkey is getting closer to achieving its goals. The second important prospect discussed in this essay is that TANAP, the backbone of the Southern Gas Corridor, will diversify energy suppliers of Turkey and the EU. This will reduce dependency on Russian pipelines and increase energy security. What is more, the emergence of TAP carrying Azerbaijani gas from Turkey to Italy via Greece and Albania will give Azerbaijan the opportunity to diversify its customer channels and penetrate the gas market in the Western Balkans. Therefore, Azerbaijan’s economic development will benefit thanks to new customers and investments in new markets. Meanwhile, Turkey will secure economic profits, as it will charge transit fees and attract Azerbaijani investors to energy sector development in Turkey. The third prospect is that TANAP will have important implications for Turkish - Azerbaijani relations. For instance, it is expected that investments made within framework of TANAP will create employment opportunities for both countries. In addition, pipeline security and uninterrupted energy flow are both crucial conditions for a well functioning economy. Hence, in order to maintain economic growth, Turkey and Azerbaijan may cooperate on security matters in order to protect pipelines from possible attacks.
However, there are two important energy risks that TANAP faces, namely security concerns in the region and uncertainty about the volume of available gas. Conflicts might occur between Georgia and Russia, or Turkey and the PKK, and/or al-Qaeda affiliated groups could attack the pipelines. On the other hand, the first two challenges can likely be addressed through attempts to normalize relations between Georgia and Russia and the Kurdish Initiative, which aims to improve the human rights of Turkish citizens of Kurdish origin. Regarding long-term energy risks, TANAP and TAP can be regarded as potential contributors to the energy security of Europe and Turkey, but in long run, the pipeline’s projected volume will not be sufficient to meet the energy demands of the EU and Turkey. This can be addressed by including other regional natural gas deposits. In this regard, Turkmenistan, Kazakhstan and the Iraqi central government should be brought in, to provide additional gas to the Southern Gas Corridor. Otherwise, Russia will continue to dominate regional natural gas markets.