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AZERBAIJAN AS EUROPE'S NEW AND ALTERNATIVE ENERGY PROVIDER

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Energy security has a decisive place and role in the national security of states. While approaching the issue from this perspective, Azerbaijan has a decisive role in ensuring Europe's energy security. In this regard, the Republic of Azerbaijan was the initiator of the Southern Gas Corridor project, which is considered a mega project in Europe. The project is already completed. The article conducts analysis of the details of this process and draws appropriate conclusions. The article also provides information on the main components of the Southern Gas Corridor project, Shah Deniz-2, the expansion of the South Caucasus Pipeline, the Trans-Anatolian Pipeline (TANAP) and the Trans-Adriatic Pipeline (TAP). At the same time, the article states that Azerbaijan's energy security policy is in no way directed against third country.

Keywords: *Europe, Azerbaijan, Southern Gas Corridor, Trans-Anatolian Pipeline, Trans-Adriatic Pipeline*

Introduction

Later increments in energy costs and a stable acceleration in worldwide energy demand have driven European Union (EU) to lock in in a wide-ranging debate over how best to address the member states' future energy necessities. As a result, energy security became a policy need for the European Union (EU) and its member states. The EU imports around 50 percent of the energy that it expends. Notwithstanding noteworthy changes, the European Commission anticipates this number to rise to 65 percent by 2030. Around half of the EU's imported energy comes from Russia, within the frame of oil and natural gas. Europe's developing reliance on Russian energy has fueled hypothesis that Moscow is using the "energy weapon" to undertake to impact European foreign and financial policy.

The EU has generally applied little if any impact over the energy policies of its individual member states. However, in March 2007, in the face of expanding concern with respect to Europe's dependence on Russian energy assets, and expanding open pressure to address worldwide climate alter, the EU member states concurred on an arrangement of policy measures expecting to create the establishment of an "Energy Policy for Europe." The March agreement points to extend the EU's capacity to secure and expand European energy supplies, whereas looking for to decrease EU-wide carbon outflows by advancing elective and renewable energy sources.

The United States and Europe have steadily broadened the transatlantic energy dialogue to include joint promotion of collective energy security, energy efficiency, and alternative energy sources. Leaders on both sides of the Atlantic have agreed to pursue U.S.–EU cooperation to develop alternative and renewable energy technologies and to forge coordinated policies with regard to Russia and politically unstable regions with substantial energy resources.

In this direction Southern Gas Corridor has been identified as the most optimal option for Europe as an alternative energy source. The Southern Gas Corridor is a major gas project that supplies natural gas from the Caspian Sea to Europe. The project consists of four phases: Shah Deniz 2, the South Caucasus Project, TANAP and TAP. Moreover, Southern Gas Corridor project plays a large role in the format of cooperation between the European Union and Azerbaijan.

EU Energy Policy

Energy assets of European Union are generally consumed from third countries. In the year of 2017 the energy utilization from the third world was 55% of generally assets which exhibits that there is a heavy dependency on import of energy assets. Russia with 30% of dependency, Norway with 11% and African countries with 14% are three principle alternatives of import of oil and gas assets for the EU.

This tremendous reliance of 28 countries from the third world can be considered a danger to the EU's energy security approach (3). Norway, which is one of the developed EU countries, is a potential energy supplier for other member states however, because of the decline in the country's oil resources it makes Europe look for other resource providers. Another potential alternative energy supplier for Europe is North Africa, but since of political and primarily financial instability it prevents the achievability of supply of energy. In order to diversify energy supply for guaranteeing energy security and expanding competitiveness in the market, the EU started to import LNG. In the year of 2018 member states general import of LNG was 11%, member states like

Spain, France, Italy, UK were the largest importers of LNG for year 2018 (2). Despite the fact that LNG can be considered another alternative for EU energy union strategy, infrastructure and transportation of LNG roots are costly which is not quite an efficient way for member states.

Russia is the biggest supplier of energy resources, mostly oil and gas for the EU as mentioned above with 30% of supply. The energy relationship between Russia and EU is interdependent because the EU needs Russia for energy as an import root and at the same time Russia needs the EU as a big exporting energy market. However, huge dependence on Russian energy supply can be considered a challenge on energy security of the EU because of political interference by Russia. The reason is Russia's main aim in the global energy sector is to become a leader in the energy sector and to get the control of world's energy resource prices. For ensuring its energy security the EU has six main goals 1. Diversification of supply, 2. Liberalization of its market, 3. Energy Efficient Technology, 4. Secure all EU members to have the same network, 5. Efficient use of energy resources. Because of all these reasons Europe initiated the process of searching for various non-Russian supply roots. The EU was looking for a different source of gas supplier because many member state countries have huge dependence on Russian gas for example, Slovakia, Bulgaria has 95 % dependence on Russian gas supply.

All these processes of the EU countries on energy security made Caspian region, especially Azerbaijan, to become a new energy provider of the EU. Decreasing the dependence on Russia's energy supply Azerbaijan in Caucasus region can be an effective supplier partner for future. The reason that Azerbaijan Republic is a major partner is that the country is an essential exporter of oil (0.6% global oil resources) and gas (0.7% global gas resources). Azerbaijan exporting oil to several countries with BTC pipeline which exports Azeri- Chiraq- Gunashli oil though Georgia and Turkey and sends to other countries in Mediterranean Sea. Because there was no pipeline for gas Azerbaijani gas only exported to Georgia for efficient prices nowadays there are so many projects planned to export Azerbaijani gas to other countries, especially Europe.

Azerbaijani Export Pipelines of Resources:

To ensure energy security has been in the interest of European Union, which demands achieving many and diversified sources of energy. Thus, it makes Azerbaijan' role highly important in the cooperation with European States for energy stabilization. For instance, Southern Gas Corridor project is one of the most fundamental in terms of oil and gas supply to European continent. The main goal of the SGC project is to export Azerbaijani gas to European

countries for expanding European energy supply. The exports of gas to European continents was planned to reach through Shah Deniz 1 (SD1) and Shah Deniz 2 (SD2) fields, Trans-Anatolian Natural Gas Pipeline (TANAP) and Trans Adriatic Pipeline (TAP), as well as South Caucasus Pipeline (9). Accordingly, exploitation of Shah Deniz field carries a huge significance to ensure the relations between the European Union and Azerbaijan.

In 1999, Shah-Deniz gas field was discovered, which can be considered one of the largest gas-condensate fields in the world (10). In November of 2006, the initial gas was extracted from a drilled well, based on the contract signed on June 1996. This was considered as the initial stage of Shah Deniz, which is called Shah Deniz 1. After 2006, the extracted natural gas was exported to Georgia and Turkey, and also ensured the needs of Azerbaijan. Shah Deniz 2 was the further expansion of Shah Deniz 1 field. The delivery of gas firstly continues to flow via subsea pipelines to Sangachal Terminal. Then, the natural gas flows from the terminal to Azerbaijan's national grid system. The remaining gas is transferred through South Caucasus Pipeline. Only in 2019, the exports reached to 45 million standard cubic meters of Shah Deniz gas from Sangachal terminal (1).

Shah Deniz 2, which is the full-field expansion of Shah Deniz gas field could be considered as one of the fundamental and largest gas field globally. In the Caspian Sea, it is also considered as the first subsea infrastructure. In total, the expansion of Shah Deniz field lead to accommodate another 16 bcm (16 billion cubic meters) of natural gas per annum. While 10 bcm of gas per annum will be supplied to European continent, another 6 bcma will be exported to Turkey. Thus, from the geopolitical and strategic view, it serves the interests of European States and Turkey. (11)

Shah Deniz Consortium and more than 9 European Companies signed Gas Sales Agreements on September of 2013. Moreover, being operated by the BP (with 28.8% share), Petronas (15.5%), SOCAR (16.7%), Lukoil (10%), NIOC (10%), and TPAO (19%) are the current shareholders of Southern Caucasus Pipeline. The joint work of SOCAR and BP played a vital role in ensuring the success of this project. As an example, gas production was 27 billion 512.7 million cubic meters in 2019, which was more than 17.1 percent than in 2018. The gas production in Shah Deniz field increases year by year and is expected to increase in 2020 (6). The current capacity of production at Shah Deniz field is approximately 20 billion cubic meters of gas per year. Put it in another way, 56 million cubic meters of gas could be produced every day. Jamalov & Alizada argues that the implementation of Shah-Deniz 2 project will open a new gas corridor. All in all, it can be concluded that the discovery of Shah Deniz field and the effective implementation of the project enabled Azerbaijan to export a huge amount of gas to European market.

TANAP and TAP pipelines:

Trans Anatolian Natural Gas Pipeline, as the major part of the SGC that links to SCP on the Georgia-Turkey border and to TAP on the Turkey-Greece border, is aimed to supply Turkey and Europe with Azerbaijani natural gas from Shah Deniz II and further fields of Caspian Sea. TANAP has significant importance for Azerbaijan as it allows the country to export to Europe for the first time. The strategy of the project is to apply best practices and going beyond the current standards of the gas industry while shipping Azerbaijani gas. Additionally, the Trans Anatolian Natural Gas Pipeline project strives for diversifying energy products in European markets as well as satisfying the growing energy demand of Turkey. In December 2011, The Memorandum of Understanding between Azerbaijan and Turkey was signed regarding the pipeline project. After six months, the legal foundation of the pipeline was based when the "Intergovernmental Agreement concerning the Trans-Anatolian Natural Gas Pipeline System between the Government of the Republic of Turkey and the Government of the Republic of Azerbaijan" and the "Host Government Agreement" were signed in Istanbul. Construction of Trans Anatolian Natural Gas Pipeline started in 2015 after the groundbreaking ceremony in which President of Turkey Recep Tayyip Erdogan announced their plan of making Turkey "an energy distribution center of the region". On June 12, 2018, the inauguration ceremony of the project was held in Eskisehir with the attendance of three presidents of Azerbaijan, Turkey, and Georgia. Starting from late June, supply of commercial gas to Turkey has begun. On 30 November 2019, completion of the TANAP project was marked in the ceremony in which President Ilham Aliyev and Erdogan participated. (8) Moreover, the transport capacity of TANAP is 16 billion cubic meters per year; the EU is distributed 10 billion cubic meters and the other 6 billion cubic meters is reserved for Turkey. Nevertheless, with more investment, this number can rise to 31 billion cubic meters. According to initial cost prediction, the cost of TANAP was estimated to be around $11.7 billion; however, due to effective leadership and decision-making strategies, the cost was decreased to less than $7 billion dollars. The total length of the Trans Anatolian Natural Gas Pipeline is around 1,850 km. In addition to that, the shareholders of the TANAP project include "a joint venture of SOCAR (49%) and the Ministry of Economy of the Republic of Azerbaijan (51%), BOTAS (30%), BP (12%) and SOCAR Turkey Energy A.S (7%)". (13)

After the completion of the Trans-Adriatic Pipeline (TAP), natural gas of Caspian will be delivered to Greece, Albania, and Italy through TANAP and TAP. Trans Adriatic Pipeline (TAP), which is still under construction, will link to TANAP at the Greek-Turkish border. In February 2013 "Intergovernmental

Agreement" on the Trans-Adriatic Pipeline project was signed among Albania, Greece, and Italy. Basically, this pipeline is predicted to play a crucial role in the energy security of the EU as a result of being the most direct way of delivering gas from the Caspian Sea to EU markets. Alongside that, TAP will contribute to the European energy security strategies of diversifying energy sources. The pipeline, additionally, is anticipated to have "physical reverse flow" characteristics which will let the energy be redirected from Italy to further Southeast Europe. Starting from the Greece-Turkey border, the overall length of TAP will be 878 km. With 10 billion cubic meters of initial transportation capacity of the pipeline (approximately seven million households in Europe), it can be expanded up to 20 billion cubic meters of natural gas per year. Shareholders of the project are BP (20%), SOCAR (20%), Snam (20%), Fluxys (19%), Enagás (16%) and Axpo (5%). Thus, once built, the Trans-Adriatic Pipeline, as a final segment of SGC, will provide a cost-effective transportation route that connects the Caspian Sea with Europe. TAP is expected to lead a significant increase in the government budget of Azerbaijan while contributing to the energy security of the EU. (14)

Advantages of Export pipelines of Azerbaijan:

Along with exporting its energy resources to the world market, our country is also a major transit country in the region. With the construction of the Trans-Caspian pipeline, Azerbaijan will further increase its potential as a transit country. The transformation of the Caspian's energy resources into a major alternative energy source for Europe has further strengthened Azerbaijan's position and cooperation with the West (4). Cooperation of many European countries, including Poland, Romania and the Baltic states with Azerbaijan has entered a new content and stage in a positive sense. Azerbaijan invests in the construction of oil and gas complexes in Turkey, Georgia, Moldova and Romania. A new consortium was established as a result of the Vilnius Energy Summit to prepare a corridor for the transportation of hydrocarbon resources. The main purpose of the consortium is to analyze the possibility of implementing transportation systems from the Caspian Sea to European markets and international markets via Azerbaijan, Georgia, Ukraine and Poland.

One of the most important and key points of the EU's new energy policy since 2006 is to diversify natural gas sources and routes to ensure energy security. Azerbaijani gas in the Caspian region, especially the Shah Deniz gas field, will be one of the sources of gas in the implementation of the project. The Shah Deniz field is expected to supply gas to the pipeline both during the initial phase of the project and in subsequent phases. Azerbaijan, which has been a world gas exporter since 2007, intends to continue its strong strategy and rich

experience in the oil sector as a gas producer. Although Azerbaijan exports its gas to the world market through 4 routes, our country is also interested in obtaining a wide range of energy routes. In addition, given the important role of energy resources in the development of the country's economy, the implementation of such a large project, of which Azerbaijan will be a key player, will undoubtedly affect the growth of oil and gas revenues and economic growth as a whole.

The diversification of oil and gas pipelines by the Azerbaijani state not only serves the country's energy security, but also has a positive impact on a more efficient and targeted organization of transnational energy exports. At present, Azerbaijani oil is exported to the Mediterranean Sea and world markets via Baku-Tbilisi-Ceyhan in three directions, to the Black Sea ports and European markets via the Baku Supsa and Baku-Novorossiysk lines. The next project is to extend the Baku-Supsa line to Eastern Europe via the Odessa-Brody-Plotsk-Gdansk route (4). The establishment of a joint venture called Sarmatia for this purpose also indicates that the process will be accelerated in the near future. After that, it is planned to take practical steps to implement additional routes to European markets for the transportation of energy resources of the Caspian Sea.

To sum up, Azerbaijan, which pursues a policy of diversifying transnational energy exports to deliver oil and natural gas from the Caspian Basin to ports in the Black, Mediterranean and Baltic Seas, the surrounding regions, as well as Central Europe, is currently working to establish multiple export routes and pipelines. This not only ensures its independent energy policy and export security, but also serves the interests of the region's oil and gas countries and Europe's energy security. Today's economic growth rate of the Republic of Azerbaijan also shows that it occupies one of the highest positions not only in the South Caucasus, but also in the CIS and other European countries, and in the coming years will become one of the most developed countries in Europe.

Conclusion:

According to the needs of modern world, the dominating type of energy always changes. It started with wood, coal, oil and currently main types are gas and renewable energy. Due to that, Europe started more focus of their gas supplier. Currently, Europe depends on North Sea, North Africa and Russia. In order to contribute to the energy security, Europe is willing to diversify their market. SGC is one of the ways to execute that. Through the South Gas Corridor Europe will be able to transfer the Shahdeniz gas. However, the importance of SGC in that context is not only about the gas from Shahdeniz to Europe, because, it's a "small slice in a big pie". The main importance of this pipeline

is about the creation of connection between Europe and Caspian region. It is planned to transfer after the gas from the countries near Caspian Sea, because these countries are sufficiently rich with gas resources.

Parties involved in this project are European Union, Turkey, Georgia and Azerbaijan. While analyzing previous mentioned countries, it should be mentioned that there is stability in relationship. Especially, Turkey, Azerbaijan and Georgia already connected with South Caucasus Pipeline, so in that context there is long term stability between these countries. In addition, legislation of the countries allows to make this project happen in the fast and safe way.

Implementing SGC is about contributing energy securities of the main parties (in that context Azerbaijan and Europe Union), particularly to the diversification of the market. Additionally, this project gives opportunity to strengthen up the relations between the parties and showcasing the importance of Caspian region, specifically Azerbaijan. From the first look, it may seem that Azerbaijan got a weaker side in these negotiations, however the future directions of the project totally depends on Azerbaijan and its future directions. That point makes our country more powerful.

In conclusion, Azerbaijan is one of the ways for Europe to diversify their market and have an additional alternative for unexpected situations. Considering the situation in the oil market, the success of SGC will contribute Azerbaijan to strengthen up in gas sector. Tendencies in the safety of environment, makes this project more relatable to the modern days, and future. Furthermore, SGC has positive impact to all the parties involved, and it's one of the first steps to the connection between Europe and Caspian region.

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XÜLASƏ

AZƏRBAYCAN AVROPANIN YENİ VƏ ALTERNATİV ENERJİ MƏNBƏYİ KİMİ

Həsənova Ş.Ş.
Azərbaycan Respublikasının Prezidenti yanında Dövlət İdarəçilik Akademiyasının Beynəlxalq münasibətlər və xarici siyasət kafedrasının doktorantı

Dövlətlərin milli təhlükəsizliyində enerji təhlükəsizliyi həlledici yerə və rola malikdir. Məsələyə bu kontestdən yanaşdıqda Avropanın enerji təhlükəsizliyinin təmin olunmasında Azərbaycan həlledici rola malikdir. Bu baxımdan Avropanın meqa layihəsi hesab edilən Cənub Qaz Dəhlizi layihəsinin təşəbbüskarı Azərbaycan Respublikası olmuşdur. Hal-hazırda sözügedən layihənin reallaşması istiqamətində son tamamlanma işləri başa çatmaqdadır. Məqalədə də bu prosesin detalları ətrafında elmi təhlillər aparılmış və müvafiq nəticələr çıxarılmışdır. Məqalədə Cənub Qaz Dəhlizi layihəsinin əsas kompenentləri olan "Şahdəniz-2", Cənub Qafqaz Boru Kəmərinin genişləndirilməsi, Trans-Anadolu Boru Kəməri (TANAP) vəTrans-Adriatik Boru Kəməri (TAP)

haqqında məlumat verilmişdir. Eyni zamanda məqalədə göstərilir ki, Azərbaycanın enerji təhlükəsizliyi siyasəti heç bir halda üçüncü dövlətin əleyhinə yönəlməmişdir.

Açar sözlər: *Avropa, Azərbaycan, Cənub Qaz Dəhlizi, Trans-Anadolu Boru Kəməri, Trans-Adriatik Boru Kəməri*

РЕЗЮМЕ

АЗЕРБАЙДЖАН КАК НОВЫЙ И АЛЬТЕРНАТИВНЫЙ ИСТОЧНИК ЭНЕРГИИ В ЕВРОПЕ

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Энергетическая безопасность играет ключевую роль в национальной безопасности государств. С этой точки зрения, Азербайджан играет ведущую роль в обеспечении энергетической безопасности Европы. Азербайджанская Республика была инициатором проекта Южного газового коридора, который считается мегапроектом в Европе. В настоящее время "Южный газовый коридор" близится к завершению. В статье также проведен научный анализ деталей данного процесса и сделаны соответствующие выводы.

Ключевыми компонентами проекта Южного газового коридора являются Шах Дениз-2, расширение Южно-Кавказского газопровода, Трансанатолийского газопровода (TANAP) и Трансадриатического газопровода (TAP). В то же время, в статье рассматривается что политика энергетической безопасности Азербайджана никогда не была направлена против третьей страны.

Ключевые слова: *Азербайджан, Европа, Южный газовый коридор, Трансанатолийский газопровод (TANAP), Трансадриатический газопровод (TAP)*