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Tez Danışmanı : Dr. Öğr. Üyesi Ayşegül GÖKALP KUTLU

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Tezi Hazırlayan: Muhammad Ali Husein

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FOREWORDS

This research discusses the Russian Federation and Turkiye's cooperation in Balkans energy security through the TurkStream pipeline. Russian Federation as the largest natural gas producer in the world plays an active role in energy market and supplies its natural gas to the Balkans while ensuring its geopolitical value increases in the region. Russian Federation delivers natural gas to other countries via pipelines and uses natural gas as a part of a political weapon to influence other countries.

Turkiye exists as an actor with strategic value in Russian natural gas sector with European countries. Turkiye's position in the middle of the energy supplier and consumer countries, makes Turkiye plays an active role as a bridge builder and the country of transit energy also. Since the Russian Federation – Ukraine conflict in 2014, Russian Federation diverts its natural gas supplies to Europe via Turkiye through the TurkStream pipeline. This pipeline replaces the previous natural gas pipeline delivering natural gas from Russian Federation to the Balkans via Ukraine.

The Balkan countries have been relying on Russian Federation to meet their domestic demand. However, based on the volume, Balkan countries are a small part of Russian natural gas market in Europe. Accordingly, Russian interest in Balkan is not only in economic terms but also for geopolitical purposes. Russian Federation wants to maintain its influence in the Balkans via the TurkStream pipeline.

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Muhammad Ali HUSEİN

Kocaeli, 2023

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ÖZET

Rusya Federasyonu ve Türkiye, Rusya'dan Türkiye ve Balkanlar'a doğalgaz sağlanarak Türk Akım boru hattı konusunda ortak bir anlayışa sahiptir. Türk Akım boru hattı, Türkiye'nin enerji tedarikçileri ile tüketicileri arasında aracılık bir ülke olması için çok önemli bir adım görünmektedir. Bu enerji işbirliği, Avrupa bölgesinde birçok ekonomik ve jeopolitik alanında fayda sağlayacaktır. Türk Akım İşbirliği'nin ana aktörleri olan Rusya Federasyonu ve Türkiye, enerji sektöründe karşılıklı bir ilişkiye sahiptir ve Balkanlar'ın büyük ölçüde bu boru hattına bağlı olması nedeniyle bu işbirliği hayati önem taşımaktadır.

Türk Akım'ın 2016'da imzalanması sonrasında 2020 yılında faaliyete gerçekleşmektedir. Türk Akım'ın Türkiye'nin ve birçok Balkan ülkesinin enerji ihtiyacını karşılamasını beklenmektedir. Bu işbirliği geliştikçe, Rusya Federasyonu ve Türkiye'nin birlikte jeopolitik değeri Balkanlar'a yükselmektedir. Ayrıca TürkAkım boru hattının kendi ülkelerinden geçmesi nedeniyle Balkanlar'daki transit ülkelerin jeopolitik değeri de yükselmektedir. Rusya Fesderasyon'un doğal gazı, her ülkenin enerji talebi dikkate alarak Türk Akım boru hattı üzerinden teslim edecektir. Bu araştırma, Balkan bölgesinde enerji güvenliği konusunda Rusya Federasyonu ve Türkiye arasındaki işbirliğinin nasıl çalıştığını incelenmektedir.

Özetle TürkAkım boru hattı üzerinde her aktör kendi ulusal çıkarları ve enerji güvenliği temelinde işbirliği yapmaktadır. Rusya Federasyonu, Türkiye ve Balkanlar'dan gelen doğal gaz talebinin güvenliğini sağlamakta, kesintisiz ve güvenilir bir doğal gaz arzı sağlamaktadır. Türkiye, arz güvenliğini Rusya Federasyonu'ndan karşılamakta ve Rusya Federasyonu ile Balkanlar arasında geçiş ülkesi olmaktadır. Balkanlar arz güvenliğini Rusya Federasyonu ve Türkiye'den karşılarken, ve kesintiye uğramadan Rus doğal gazını almaya devam etmektedir.

Anahtar Kelimeler: Enerji Güvenliği, Jeopolitik, Rusya Federasyonu, Türkiye, Balkanlar.

RUSSIAN FEDERATION AND TURKIYE COOPERATION IN BALKANS ENERGY SECURITY THROUGH TURKSTREAM PIPELINE

ABSTRACT

Russian Federation and Turkiye have a mutual understanding of the TurkStream pipeline framework, in which the Russian Federation supplies natural gas directly to Turkiye, then from Turkiye to the Balkans. The TurkStream pipeline appears to be a significant step for Turkiye to become a bridge country between energy suppliers and consumers. This energy cooperation will generate several economic and geopolitical benefits in the region. As the main actors in the project, Russian Federation and Turkiye have a mutual relationship in the energy sector and this cooperation is considered vital since Balkans heavily rely on this pipeline.

Since the signing of the TurkStream pipeline in 2016 until being operated in 2020, TurkStream is expected to meet the energy demand of Turkiye and Balkan countries. With the development of the cooperation, the geopolitical value of Russian Federation and Turkiye increase to the Balkans accordingly. The geopolitical value of transit countries in the Balkans also increases due to the TurkStream pipeline passing through their countries before the natural gas reaches other Balkan countries. Russian natural gas will be delivered through the TurkStream pipeline by considering the energy demand of each country. This research explains how Russian Federation and Turkiye's cooperation in energy security for the Balkan region work.

In sum, each actor cooperates in TurkStream pipeline based on their national interest and energy security. Russian Federation fulfills the security of natural gas demand from Turkiye and Balkans, and provides a reliable natural gas supply without disruption. Turkiye fulfills the security of supply from Russian Federation and plays as a transit country between Russian Federation and the Balkans. While the Balkans fulfill security of supply from Russian Federation and Turkiye, and continues to receive Russian natural gas without disruption.

Keywords : Energy Security, Geopolitic, Russian Federation, Turkiye, Balkans.

SYMBOLS AND ABBREVIATIONS

BCM	: Billion Cubic Meters
BOTAŞ	: Boru Hatları İle Petrol Taşıma Anonim Şirketi
BSEC	: Black Sea Economic Cooperation
BSPC	: Blue Stream Pipeline Company
BTE	: Baku-Tbilisi-Erzurum
DFC	: Development Finance Corporation
ENI	: Ente Nazionale Idrocarburi
EU	: European Union
FDI	: Foreign Direct Investment
GTS	: Gas Transmission System
IAP	: Ionian Adriatic Pipeline
ITG	: Interconnection Turkiye Greece
LNG	: Liquefied Natural Gas
MENR	: Ministry of Energy and Natural Resources
MOU	: Memorandum of Understanding
NATO	: The North Atlantic Treaty Organization
NEEAP	: National Energy Efficiency Action Plan
OPEC	: Organization of the Petroleum Exporting Countries
PEESA	: Protecting Europe's Energy Security Act
SCP	: South Caucasus Natural Gas Pipeline
SGC	: Southern Gas Corridor
TANAP	: Trans Anatolian Natural Gas Pipeline
TAP	: Trans Adriatic Pipeline
TCGP	: Trans-Caspian Gas Pipeline Project
TPAO	: Türkiye Petrolleri Anonim Ortaklığı
UGS	: Underground Gas Capacity
UNDP	: United Nations Development Programme
US	: United States

FIGURES AND TABLES

INTRODUCTION

Energy security is considered one of the important issues for countries in the Balkan region, given the many conflicts that occurred in the past, as well as many international interests which appear in the Balkans today, making Balkan countries attempt to meet the energy demand of their region. Russian Federation is one of the countries that provides large energy reserves in Europe. However, Russian position which does not directly border with Balkan countries requires a transit country in order to supply its natural gas to the Balkans. Russian Federation has several transit country options, Ukraine and the Republic of Bulgaria are two of the options since both of them border with Russian Federation directly. However, considering the existing conflict that occurred between Russian Federation and Ukraine, plus the lack of modernization of gas pipelines that have been going on for decades, Russian Federation is looking for a new partner in the natural gas energy market. Russian Federation also canceled the construction of the South Stream pipeline, which was planned to supply Russian natural gas to Europe through the Republic of Bulgaria. Putin blamed the European Union for discontinuing the project. While the geopolitics in the region are still in debate, Turkiye appears offering itself as a transit country to deliver Russian natural gas through the southern route via Turkiye to the Balkans. The pipeline, named the TurkStream pipeline, supplies natural gas from Russian Federation - Turkiye - Balkans through the Black Sea.

Various questions arise regarding the TurkStream cooperation. Starting from the advantages the Russian Federation gets in choosing Turkiye and vice versa, what regional economic and geopolitical interests will be obtained by the Russian Federation and Turkiye, how the TurkStream cooperation work, and to which countries are involved in the TurkStream cooperation is the focus of this research. The TurkStream cooperation began with discussions in 2014 by Russian President Vladimir Putin and Turkish President Recep Tayyip Erdoğan. The collaboration lasted well until the inauguration of the TurkStream pipeline in 2020. Accordingly, this research will be limited to the period of that years. Several studies suggest that both Russian Federation and Turkiye benefit economically and geopolitically from cooperating with the TurkStream pipeline. In fact, their geopolitical value increased

with the increasing dependence of the Balkans on Russian Federation and Turkiye. This research explains an overview of natural gas energy resources in Turkiye and Russian Federation as well as the demand from Balkas, then Russian Federation and Turkiye relations and energy policies, also Russian Federation – Turkiye cooperation in Balkans energy security.

Both Russian Federation and Turkiye possess national interests that drive them to build cooperation, considering the relations between Russian Federation and Turkiye is ups and down before the coup attempt in 2016, Russian Federation and Turkiye tied closer after Vladimir Putin supported President Erdoğan in 2016. Even in some cases, their positions remain opposite, but they consider each other as a partner in TurkSteam Pipeline. Since the conflict between Russian Federation and Ukraine lasts long and has no clue to end, Russian Federation possesses the power to cut-off the supply of natural gas to European market via Ukraine anytime due to Russian Federation – Ukraine conflict. The effect of the cut-off was significant, there was an energy crisis in Europe in 2009 after Russian Federation halted its natural gas supply via Ukraine. Since the same probability still exists, Russian natural gas supply may not be reliable for European market, yet European countries have no other option. Since the cooperation contract of Russian natural gas supply via Ukraine approaches to an end, and the South Stream Pipeline projects canceled due to European Union, Turkiye appears and offers itself as a transit country with a new route to deliver Russian natural gas from Russian Federation – Turkiye – Balkans. Vladimir Putin warmly welcomes the offer and both Vladimir Putin and Recep Tayyip Erdoğan made an agreement of TurkStream Pipeline. The project lasts well and operates in 2020. With TurkStream Pipeline, Russian Federation is able to supply its natural gas to the Balkans without passing through Ukraine, while Turkiye plays an active role as a transit country.

This research will be divided into 4 chapters regarding Russian Federation and Turkiye Cooperation in Balkans Energy Security through TurkStream Pipeline. The first chapter explains Russian Federation, Turkiye, and Balkans' energy security as the basic information about all of the actors in this research. This chapter explains the basic information regarding the energy security of each actor; Russian Federation, Turkiye, and Balkans. Particularly regarding the natural gas reserve,

production, consumption of each country and also export-import of natural gas. This basic information measures their power in energy security. The second chapter explains about Russian Federation and Turkiye Energy Policies. This chapter is the next step after the first chapter about the basic information. As international actors and nation-states, both Russian Federation and Turkiye made cooperation in the sector of energy security based on their national interests and energy policies. Each energy policy of Russian Federation and Turkiye is based on their national interest, then their national interests are implemented into energy policies. Energy policies based on national interest lead both Russian Federation and Turkiye in carrying out energy policies in the Balkans.

Furthermore, the third chapter explains about Russian Federation and Turkiye Existing Energy Cooperation. This chapter is a continuation of the previous chapter about energy policies. After both Russian Federation and Turkiye describe and implement their energy policies, this chapter connects energy policies between Russian Federation and Turkiye in the form of natural gas pipeline cooperation. The implementation of their energy policies is natural gas pipeline cooperation connecting the two countries. Also, this chapter explains all the natural gas pipeline cooperation between two countries before TurkStream pipeline works. Finally, the fourth chapter as the final chapter explains about Russian Federation and Turkiye Energy Cooperation in Balkans Energy Security through TurkStream Pipeline. This is the main chapter and connects the previous chapter, certainly focusing on the TurkStream Pipeline and all of the international actors in this research. This chapter explains how Russian Federation and Turkiye affect Balkans energy security through TurkStream pipeline according to the national interest concept and energy security theory. Furthermore, this research also examines Russian Federation, Turkiye, and Balkans policies with all of the factors in the national interest concept and energy security theory. This chapter also examines the researcher's hypothesis with the concept and theory provided. The national interest concept and energy security theory explain, interpret, and define the cause and effect in the research.

RESEARCH QUESTIONS

Since the research explains about Russian Federation and Turkiye Cooperation in Balkans Energy Security through TurkStream Pipeline, this research will be focused on research question to narrow an overview of how this research works. In order to find out how the cooperation works in Balkans, the research will be discussed how Russian Federation and Turkiye energy cooperation in Balkans energy security works, and what is the role of TurkStream Pipeline in Balkans energy security. These two questions will specify the research in order to find out the result.

RESEARCH OBJECTIVES AND BENEFITS

Furthermore, this research also possesses objectives and benefits. Objectives will focus on answering the research questions while benefits will be reviewed based on theoretical and practical benefits. The objectives of this research are to find out and to describe how Russian Federation and Turkiye cooperation in Balkans energy security works in 2016 – 2022, and also to analyze the role of TurkStream Pipeline and the effect on Russian Federation, Turkiye, and Balkans. Furthermore, the theoretical benefit of this research is to add to the treasury of international relations literature regarding the energy security discipline, while the practical benefit, this research will be a literature review for other international relations scholars and researchers regarding energy security research in the scope of Russian Federation, Turkiye, and Balkans as the actors.

RESEARCH LIMITATIONS

To specify the research and ensure the research remains on track, the limitations of the research will be limited to the TurkStream Pipeline starting from its agreement between Russian Federation and Turkiye in 2016 up to 2022. Then, this research also will be limited in the scope of national interest of nation-states and energy security discipline.

LITERATURE REVIEWS

Energy security as one of the security discipline in international relations appears as an important discipline since the security and geopolitics issues around Turkey give more place to energy security issues. Foreign policy characteristics of the countries around Turkey put energy security as an important factor along with national interest. Mostly, each country has a national interest and its national interest defines foreign policy in which energy security is put together along with the foreign policy. Energy security becomes inseparable from international security studies since some international issues involve energy security on it.

Energy security gets more place in Russian Federation's national security. Aleksei Valentinovich Bogoviz from the Federal Research Center of Agrarian Economy and Social Development of Rural Areas, All Russian Research Institute of Agricultural Economics, Moscow, mentioned that Russian energy strategy guides all energy policies since Russian Federation is facing significant threats and challenges. One of the ways to secure Russian energy security is to supply Russian energy to neighboring countries. Aleksei Valentinovich Bogoviz also mentioned that Russian Federation focuses on energy security is on three levels; national, regional, and global energy security. Russian Federation also defines the international threats that could weaken Russian energy security. International threats that are mentioned are related to all economic, political, and social factors since geopolitics of Russian Federation is facing the multi-issue from international actors. Russian Federation also defines its activity as aimed at preventing the decreasing risks and threats of energy security; the relibility of supply, energy effectiveness of the national economy, the balance of energy production and consumption, sustainability of the energy sector as a national economy and economic efficiency. Russian Federation focuses on decreasing the risks and threats to ensure its energy security. In addition, Russian Federation is also one step ahead in ensuring energy security by developing energy infrastructure at national and international levels to ensure secure its energy security (Bogoviz, Lobova, Ragulina, & Alekseev, 2018).

Energy security is an instrument of foreign policy and diplomacy, moreover, global energy security is a long-term and stable energy ensuring sustainable economic and social development. Energy security breakdowns some instruments of

security. Security of supply is the interest of importing countries to rely on a guaranteed long-term supply of energy while the security of demand is the interest of exporting countries to rely on a guaranteed long-term demand of energy, then the security of transit is the interest of the transit country connecting the supply and demand of energy. The increasing globalization of energy means interdependence of energy at regional and global levels. Exporting countries need their energy to be supplied in order to get state revenue from the energy sector while importing countries need to receive energy at an affordable prices to meet their energy demand. In addition, transit countries can play an active role as an energy hub connecting supply and demand by ensuring their energy security also (Zhiznin, 2010).

Ensuring energy security for Russian Federation means ensuring its national economy. Ivan A. Kapitonov from the Plekhanov Russian University of Economics mentioned that energy security affects the Russian Federation's national economy since energy provides state revenue and secures its energy supply and demand. Russian Federation's consumption of energy increases year by year and it leads the global energy consumption. One of the effects of increasing energy consumption is the changes in international energy trade. For Russian Federation, it is important to secure the security of demand while for importing countries it is important to secure the security of supply and the cooperation between producers and consumers. The Russian Federation in securing the security of demand, must ensure importing countries always demand the energy from Russian Federation. It means Russian Federation has to be one step ahead of other energy producers. Russian Federation is able to sustain its domination in the global energy market by securing the security of demand (Kapitonov, Dorzhieva, & Batyrova, 2022).

Russian Federation energy sources are the flagship sector that provides significant economic revenue. A S Golubeva from ITMO University in Russian Federation mentioned that based on the Report on the Results of the Expert Analytical Event by Account Chamber in 2020, more than half of the Federal budget of the Russian Federation comes from the mineral sector in which oil and natural gas dominate the sector with 82%. With significant accounts of energy to the Russian Federation budget, renewable energy sources are not required for state revenue. Russian Federation heavily relies on the energy sector and has to ensure that energy

sector remains dominant in the global energy market. The United Nations (UN) predicts the global population will increase by around 26% by the end of 2050 and it lead to an increase in the demand for energy sources. Russian Federation needs to ensure the security of demand for energy from an increase in global population and needs to ensure the production of energy sector remains significant, since energy sector of the Russian Federation is the basis of its national security (Golubeva, Pavlova, & Volkov, 2021).

Nevena Sekaric Ph.D and Vuk Lazic M.A, from the Institute of International Politics and Economics in the Republic of Serbia, mentioned that energy security gets a special place between Russian Federation, Turkiye, and the Balkans. Turkiye possesses significant potential as a bridge country between East and West in which energy is supplied from producers to consumers. Turkiye's strategic location is able to increase its geopolitical value in case Turkiye becomes an energy hub delivering energy from energy suppliers to energy importers. From their point of view, they mentioned Turkiye is able to play a role as an energy hub (central energy) between Russian Federation and the Balkans with some parts of European since Russian natural gas must pass through Turkiye before it goes through to Balkan and Europe. Prior to TurkStream pipeline, Balkan and some European countries received Russian natural gas via Ukraine and they were dependent on the Ukrainian route, however currently they rely on Turkiye since Russian natural gas passes through Turkiye and which increases their dependence on Turkiye. Bulgaria also gets the benefit from TurkStream pipeline, but Turkiye remains possess bigger influence and geopolitical leverage (Šekarić & Lazić, 2020).

Furthermore, Prof. Dr. Murat Önsoy from Hacettepe University in Turkiye also mentioned that energy security has a significant impact in the region between Russian Federation, Turkiye, European Union, and the Balkans. Their relations in the region are always related to energy security. Turkiye applies more proactive diplomacy and advanced bilateral partnership between Turkiye, Russian Federation, and the EU. With the bilateral partnerships, Turkiye possesses the capacity to continue contributing to long-term energy security in the western Balkans. Prof. Dr. Murat Önsoy also mentioned Turkiye successes in building cooperation at the intraregional level, regional level, and with global actors such as the Russian

Federation and the European Union in term of energy security. Furthermore, Turkiye has the capability to bring advanced regional economic and developed cooperation and create an atmosphere of economic, political, and geopolitical interdependence in the region. Both the Russian Federation and European Union possess interests in Europoean countries including the Balkans. Russian Federation supplies natural gas to the EU and Balkans. Russian Federation finds the route for the European market via Nord Stream to Germany, however, to supply natural gas to Balkans, Russian Federation chooses Turkiye as a transit country. EU does not want the Russian Federation to dominate the Balkans by using natural gas as a political weapon, however, Turkiye exists as a middle actor, therefore EU must distribute its concerns not only to influence the Balkans from Russian Federation but also to Turkiye since Turkiye plays an important role (Önsoy & Udum, 2015).

On another perspective, Dimitar Bechev as fellow with MEI's Frontier Europe Initiative, mentioned that energy security between Russian Federation and Turkiye is a vital issue therefore, the West gives a response against their energy relation. After TurkStream pipeline works, Turkiye turned into a natural gas consumer to with all benefits economically and geopolitically following it. Turkiye adds more natural gas pipelines from Russian Federation to meet its energy demand. Even though Turkiye add more pipeline directly from Russian Federation, Turkiye also reduces its dependency on Russian Federation with another project of Southern Gas Corridor (SGC) from Azerbaijan – Turkiye – Europe. Therefore, Turkiye remains independent and positions itself between West and East. Considering Turkiye’s position remains independent, the West tries to increase the natural gas supply diversification from Azerbaijan. The West try to develop energy security relations between Turkiye and European countries and try to re-use the Trans-Balkan pipeline instead of North-South to South-North. Russian Federation also remains on its way to running TurkStream pipeline to the Balkans and makes Balkans dependency higher. Since majority of Balkan countries import natural gas from Russian Federation, TurkStream pipeline plays a very significant role in the Russian Federation and its influence on the Balkans (Bechev, 2021). According to these frameworks of energy security, these literature reviews lead me to make a hypothesis on this research based on energy security theory and the national interest concept.

CONCEPTUAL FRAMEWORKS

a. Energy Security Theory

According to the United Nations Development Programs (UNDP), energy security is the availability of sustainable energy in a variety of forms, in adequate quantities, and at reasonable prices (Winzer, 2012). Energy insecurity is defined as the decrease in welfare that may occur due to changes in energy prices and availability (Bohi & Toman, 1996). The definition of energy security for an exporting country is to maintain the security of demand for energy exports. For Russian Federation, the goal of energy security is to reaffirm the state's control over energy and control the main pipeline and markets to the international market.

As for developing countries, their focus on energy security is on how energy can be obtained and can be reached according to their economic level. In short, energy security is a sufficient supply of energy at an affordable price. Energy supply must deliver without obstacles, and must fulfill the demand of the world economy (Pardesi, et al., 2006).

There are several energy security factors, those are (Elkind, 2010):

1. Availability

   The basic and most important factor is that energy security comes from the availability of energy and the ability to provide energy for importing countries. Energy availability also requires a market, because it shows how much energy demand and supply is needed.

2. Reliability

   Reliability is the extent to which energy services are protected from disruption. Energy is an important fundamental for economic activities, since a country's daily activities require energy. Disruption of the energy gas pipeline can disrupt the running of industry and transportation. In other words, reliability is the factor in energy security that must to be fulfilled.

3. Affordability

   Unreachable energy is energy that cannot be used. Energy affordability is not limited to the country's purchasing power for energy, but more than that, affordability to energy security is at the intensity of prices which often fluctuates, and how the importing countries reach the energy (Elkind, 2010).

Russian Federation has large reserves of energy in the international world. Russian Federation fulfills the first factor of energy security, namely availability. Russian Federation also fulfills the reliability factor as the second factor in energy security, since Russian Federation is able to deliver natural gas from Russian Federation to importing countries through gas pipelines. Russian Federation also fulfills the affordability factor as a third factor in energy security. Russian Federation sells its natural gas affordably to Balkan countries and provides discounts to Turkiye as a transit country.

b. National Interest Concept

Morgenthau defined the national interest concept as the minimum capability of the nation-state to protect its physical, political, and cultural identity from interference by other nations. This means using survival as the minimum meaning of the concept of national interest (Mas'oed, 1990). National interest is often equated with the efforts of a country in pursuing power, and the importance of power according to Morgenthau is a condition when a country can control or dictate the actions of other countries. But national interest can also be explained as the objective of a foreign policy. Therefore, the concept of power and national interest are seen as a means as well as a goal of a country's actions in order to maintain its life or survive in the international world (Perwita & Yani, 2014)

Morgenthau divides two levels for the concept of national interest, named vital and secondary interest. *First*, vital interest, is very related to nation-state life, to protect its national interest there is no compromise and

hesitation even for war. The definition of vital interest is easy to define, as follows: a free and independent nation, protected society, and fundamental values. *Second*, secondary interest, is more difficult to define, because it relates to negotiable matters. However, the settlement in secondary interest can be completed through diplomacy (Roskin, 1994).

This research discusses the interests of Russian Federation and Turkiye in which Russian Federation plays its role to influence the actions of the surrounding countries. Russian Federation cooperates with Turkiye to deliver natural gas to Balkan countries. Russian Federation and Turkiye both made up their energy cooperation based on their national interests and energy security. Since Russian Federation possesses huge reserves of natural gas energy and Turkiye's geography is very strategic to become a transit country, the cooperation lasted well and Russian natural gas is passing through Turkiye as a transit county before it is distributed to the Balkan countries. Both Russian Federation and Turkiye cooperates based on their national interest while Balkans receive Russian natural gas to fulfill their energy security.

HYPOTHESIS

Turkiye and Russian Federation cooperation is energy security cooperation and geopolitical cooperation. By cooperating with Turkiye, Russian Federation gains the natural gas market in Balkans. Russian Federation gets lots of benefits from natural gas supply and spreads its influence in the energy security framework. At the same time strengthened Russian Federation position geopolitically in the Balkans. Considering Balkan countries depend on Russian natural gas.

Besides, Turkiye also gets 3 advantages with its cooperation with Russian Federation. First, Turkiye gets energy security, since Turkiye needs natural gas from Russian Federation for domestic needs. Second, Turkiye gets economic benefits, since Turkiye plays as a transit country before natural gas is distributed to the Balkans. Third, Turkiye also strengthens its geopolitical position in the Balkans since

Balkan countries rely on TurkStream pipeline that flows from Russian Federation through Turkiye.

From the Balkans' point of view, Balkans have no choice apart from Russian natural gas to fulfill their domestic demand. TurkStream pipeline is the only option at the moment after Russian Federation stopped the natural gas supply via Ukraine. An uninterrupted supply of natural gas via TurkStream is a good opportunity for Balkans to fulfill their natural gas demand. Accordingly, their good relations with Russian Federation and Turkiye help them to get natural gas without interruption that ever happened with Ukrainian route earlier.

So the hypothesis of this research is Russian Federation as an independent actor able to fulfill the security of natural gas demand from Turkiye and Balkans, and provide a reliable natural gas supply without disruption. Accordingly, Turkiye meets the security of supply from Russian Federation and plays as a transit country between Russian Federation and the Balkans. While Balkans as dependent actor meets the security of supply from Russian Federation and Turkiye, and continue to receive Russian natural gas without disruption since the new route does not pass through Ukraine. Russian Federation and Turkiye cooperation and their foreign policies are based on their national interest, while Balkans have no other option apart from Russian natural gas via TurkStream pipeline.

RESEARCH METHODS

a. Research Methods

This research uses qualitative descriptive research methods. By analyzing the cause and effect approach in explaining the problem. Descriptive qualitative methods are used to analyze problems in an explanative manner and provide detailed explanations. Qualitative researchers emphasize on processes more than the result. The objective of descriptive qualitative research is usually to describe the problem in a detailed process. Descriptive qualitative research will be carried out through the steps of data collection, data reduction, data analysis, and conclusion-making.

b. Unit of Analysis and Level of Analysis

According to Mas'oed, the unit of analysis (dependent variable) is the variable to be described in the research, while the unit of observation (independent variable) is the unit that affects the unit of analysis (Mas'oed, 1990, p. 35). Accordingly, the unit of analysis in this research is Balkans energy policy as a dependent variable while the unit of observation is Russian Federation energy policy and Turkiye energy policy via TurkStream pipeline as independent variables which affect the Balkan countries.

In the level of analysis framework, Mas'oed divides the level of analysis into 5 levels, as follows (Mas'oed, 1990, p. 40):

1. Individual
2. Groups
3. Nation-State
4. Regions
5. Global System

Since this research will describe Russian Federation and Turkiye cooperation in Balkans energy security, the level of analysis in this research is the nation-state level.

c. Data Collection Technique

Data collection technique is the act of acquiring and measuring information on variables of interest in a systematic and defined manner. Data collection technique purposes to answer specified research questions, hypothesis, and conclusions.

The data collection technique in this research is secondary data or named library research. The secondary data are those that have previously been gathered and subjected to the statistical analysys of research methods by another party. Compared to primary data, secondary data can be obtained more quickly and at a lower cost.

Secondary data can be used by collecting data from documents, scientific journals, books, research, reports, official information from the TurkStream website, government reports, and other data that is considered relevant to this research.

CHAPTER I

1. RUSSIAN FEDERATION, TURKIYE, AND BALKANS ENERGY SECURITY

1.1 RUSSIAN NATURAL GAS ENERGY RESERVES

Russian Federation is the biggest country for the reserve of natural gas in the world and takes first place (Liutho, 2010). Referring to the 2019 Russian Federation Key Figures data, Russian energy independence is 100% (Russia Energy Information, 2019). Russian Federation does not depend on any country for its energy security. Therefore, Russian Federation can utilize its natural gas energy resources for trade, and improve Russian geopolitical position in the region.

How much gas does Russian Federation have? Since Russian Federation has the biggest natural gas reserves in the world, the total Russian natural gas reserves in 2020 were estimated to reach 38 trillion cubic meters (tcm) (Lossan, 2020). In fact, the number of natural gas reserves in Russian Federation also increased in the last 20 years, in 1999 Russian natural gas reserves reached 32,9 tcm, and continued to increase in 2009 reached 34 tcm and became 38 tcm in 2020 (British Petroleum, 2020). Of the total 38 tcm in 2020, Russian proven gas reserves in 2020 amounted to 19,1% of the world's (Temizer, Russia Ranks First in Gas Reserves Globally, 2020) and the largest of proven natural gas reserves in the world (Lossan, 2020).

Table 1 : Russian Natural Gas Reserves Comparison.

Countries	**2000 Reserves**	**2010 Reserves**	**2015 Reserves**	**2020 Reserves**
Russian Federation	33,2 tcm	34,1 tcm	37,6 tcm	37,4 tcm
Iran	25,4 tcm	32,3 tcm	32,1 tcm	32,1 tcm
Turkmenistan	14,9 tcm	25,9 tcm	24,7 tcm	24,7 tcm
Qatar	1,8 tcm	13,6 tcm	13,6 tcm	13,6 tcm
USA	4,8 tcm	8,3 tcm	12,6 tcm	12,6 tcm

Source : Petform. *Natural Gas Market in the World.* 2020

In term of proven reserves, Russian Federation is the biggest country for natural gas proven reserves. According to Petform, Russian Federation remains the first position as the world's biggest natural gas proven reserves. Russian natural gas reserves is 33,2 tcm in 2000, then 34,1 tcm in 2010, 37,6 tcm in 2015 and 37,4 tcm in 2020. Followed by other countries, only Iran, Turkmenistan, Qatar, and USA have proven reserves of more than 10 tcm in 2022. From the sixth place, the total reserves are less than 10 tcm in 2020. The total of natural gas reserves in the world in 2020 is 188,1 tcm, while Russian Federation owns 37,4 tcm or equals to 19,8% of the world (Petform, 2020).

How much natural gas does Russian Federation produce? In 2019, Russian Federation produced 679 billion cubic meters (bcm) of natural gas, and took place as the second major producer of natural gas in the world (Elagina, 2020). Russian natural gas production has increased in recent years. In 2016, Russian natural gas production amounted to 589,3 bcm, in 2017 increased to 635,6 bcm, in 2018 increased to 669,1 bcm, and in 2019 increased to 679 bcm (British Petroleum, 2020, p. 34).

Table 2 : Russian Natural Gas Production Comparison.

Countries	**2017**	**2018**	**2019**	**2020**	**2021**
USA	775 bcm	873 bcm	963 bcm	949 bcm	963 bcm
Russian Federation	636 bcm	668 bcm	620 bcm	577 bcm	719 bcm
Iran	238 bcm	233 bcm	241 bcm	249 bcm	257 bcm
Qatar	165 bcm	170 bcm	176 bcm	205 bcm	207 bcm
Canada	190 bcm	195 bcm	188 bcm	183 bcm	189 bcm

Source : OPEC. *2022 OPEC Annual Statistical Bulletin.* 2022

According to OPEC, Russian Federation alone produced 719 bcm in 2021 and this amount is bigger than its previous years. Russian Federation produced 636 bcm in 2017, 668 bcm in 2018, 620 bcm in 2019, 577 bcm in 2020, and 719 bcm in 2021. This amount is very high compared to other countries and took second place after the USA for natural gas production. Even Russian natural gas production is near

equal to the Middle East whole combined production, while the Middle East whole combined production in 2021 is 721 bcm. In 2021, the world produced 4.145 bcm of natural gas and Russian Federation produced 719 bcm or equal to 17,3% of world production (OPEC, 2022, p. 79).

How much is Russian natural gas demand? Russian natural gas demand has also increased in recent years. In 2016, it was recorded that the total Russian natural gas demand was 420,6 bcm, in 2017 increased to 431,1 bcm, in 2018 increased to 454,5 bcm, and in 2019 increased to 443,3 bcm (British Petroleum, 2020, p. 36). In fact, Russian natural gas supplies to domestic markets are about twice the size of supplies to the export market (Vanadzina, 2018). Since Russian gas production was 679 bcm and Russian natural gas needs were 444,3 bcm in 2019. There is a remaining 236 bcm of natural gas produced and consumed by Russian Federation that is used for export.

Table 3 : Russian Natural Gas Demand Comparison

Countries	**2017**	**2018**	**2019**	**2020**	**2021**
USA	768 bcm	852 bcm	879 bcm	862 bcm	862 bcm
Russian Federation	435 bcm	445 bcm	449 bcm	443 bcm	465 bcm
China	236 bcm	276 bcm	299 bcm	322 bcm	352 bcm
Iran	217 bcm	227 bcm	231 bcm	233 bcm	243 bcm
Canada	133 bcm	138 bcm	138 bcm	133 bcm	136 bcm

Source : OPEC. *2022 OPEC Annual Statistical Bulletin.* 2022

In term of natural gas consumption, Russian Federation takes second place after the USA. Russian Federation consumed natural gas at the amount of 435 bcm in 2017, 445 bcm in 2018, 449 bcm in 2019, 443 bcm in 2020, and 465 bcm in 2021. Russian Federation remains the second position in term of the demand of natural gas compared to other countries' demand in the world. In 2020, the world demand 4.100 bcm of natural while Russian Federation alone consumed 465 bcm or equal to 11,3% consumption of the world (OPEC, 2022, p. 83). However, Russian natural gas consumption is around 2 times of its export to other countries.

How much natural gas does Russian Federation export? With abundant natural gas resources, in 2019 Russian Federation exported 236,9 billion cubic meters (bcm) of gas. This export is one of the highest in Russian history. Of these, 199,2 billion cubic meters have been sold to countries outside the former Soviet Union. Meanwhile, 37,7 billion cubic meters were sold to the former Soviet Union countries (Lossan, 2020). In 2019, Russian natural gas exports to Western European countries and Turkiye amounted to 77%, while Russian natural gas exports to Central European countries were 23%. In 2019, Russian largest natural gas exports were to Germany at the amount of 57,01 bcm, followed by Italy at the amount of 22,10 bcm, Austria at the amount of 16,28 bcm, and Turkiye at the amount of 15,51 bcm (Gazprom Export, 2020).

Table 4 : Russian Natural Gas Export Comparison

Countries	**2017**	**2018**	**2019**	**2020**	**2021**
Russian Federation	229 bcm	249 bcm	262 bcm	239 bcm	247 bcm
USA	89 bcm	102 bcm	131 bcm	149 bcm	188 bcm
Qatar	126 bcm	126 bcm	129 bcm	127 bcm	134 bcm
Norway	123 bcm	119 bcm	113 bcm	112 bcm	111 bcm

Source : OPEC. *2022 OPEC Annual Statistical Bulletin.* 2022

According to OPEC, Russian Federation alone exports natural gas at amount of 229 bcm in 2017, 249 bcm in 2018, 262 bcm in 2019, 239 bcm in 2020, and 247 bcm in 2021. Russia not only has the biggest proven reserves of the world's natural gas, besides the Russian Federation is also the biggest exporter of the world's natural gas. Compared to other countries, Russian Federation is the only country that exports more than 200 bcm annually. In 2021, the world total exports are 1.418 bcm while Russian Federation in 2021 exports 247 bcm or equals to 17,4% of the world's total export (OPEC, 2022, p. 80).

How Russian Federation becomes natural gas exporter? There are 2 factors that make Russian Federation become the largest natural gas energy exporter in the world to date. First, abundant natural gas energy reserves, and second, low

production costs. In addition, Russian Federation supplies its natural gas energy by giant pipeline with a large capacity therefore Russian Federation is able to supply natural gas energy with an unlimited volume (Lossan, 2020).

Why does Russian natural gas matter? Russian Federation is the largest natural gas reserve, the biggest natural gas supplier and the second largest natural gas producer. In 2021 Russian Federation produced 762 bcm of natural gas and made an export of natural gas at the amount of 210 bcm via pipeline. Russian Federation has a wide-reaching natural gas pipeline passing through Belarus and Ukraine earlier as transit countries. Furthermore, Russian Federation has pipelines delivering natural gas to European countries directly, those are Nord Stream, Blue Stream, and TurkStream pipelines (IEA, 2022).

Russian Federation completed Nord Stream II in 2021, However, the German government decides not to approve to operating due to Russian Federation – Ukraine conflict. Yet, the European Union demand around 40% of Russian natural gas in 2021, with the largest demand coming from German, Turkiye, and Italy (IEA, 2022). Furthermore, Balkan countries also demand around 44,7% of Russian natural gas in for their consumption in 2016 (Furuncu, 2020).

In addition, European countries' energy policy forward thinking is focused on renewable energy, and they find themselves in a dangerous position due to their dependence of Russian natural gas. Russian domination in the European and Balkans natural gas market gives leverage and benefit for Russian in dealing with European countries and Balkans. European and Balkans' dependence on Russian natural gas affects their freedom of action and their sovereignty (Anderson, 2008).

The Russian Federation also heavily relies on revenues from the energy sector, of the energy sector both oil and natural gas, Russian Federation received around 52% of its revenue from the energy sector on the Federal budget (Strauss Center, n.d.). Natural gas is an advantage for Russian Federation and Russian Federation utilizes it for domestic and foreign policy purposes.

1.2 TURKIYE NATURAL GAS RESERVES AND DEMAND

How much natural gas does Turkiye produce? In 2019, Turkiye produced 473,8 million cubic meters (mmcm) of natural gas (Hamit, Bayar, & Aliyev, 2020). Turkiye is one of the importing countries of natural gas energy from other countries. Until 2019, Turkiye's natural gas production is still far from annual domestic needs. Therefore, Turkiye has to import natural gas from several countries to meet domestic energy demand. In 2016, Turkish natural gas reserves are estimated at 177 bcf (billion cubic feet) / 3,3 bcm (Energy Information Administration, 2017).

How much is Turkiye's natural gas demand? Turkiye's demand for natural gas in 2019 was 43,2 billion cubic meters (bcm) (Sönnichsen, 2020). Over the past 10 years, Turkiye's natural gas demand has increased from 33,7 bcm in 2009 to 43,2 bcm in 2019. Turkiye's highest demand in the last 10 years was 51,6 bcm in 2017 (British Petroleum, 2020). Natural gas consumption for Turkiye's domestic needs is very high and is obtained through imports of natural gas from the Russian Federation, Iran, and Azerbaijan. As well as imports of Liquid Natural Gas/LNG from Algeria and Nigeria (Temizer, 2020).

Table 5 : Turkiye Natural Gas Demand and Import

Years	Natural Gas Demand	Natural Gas Import
2017	53,5 bcm	55,1 bcm
2018	49,5 bcm	50,0 bcm
2019	44,9 bcm	45,2 bcm
2020	48,2 bcm	48,1 bcm
2021	59,3 bcm	58,7 bcm

Source : OPEC. *2022 OPEC Annual Statistical Bulletin.* 2022

According to OPEC, Turkiye's natural gas energy demand is at the amount of 53,5 bcm in 2017, 49,5 bcm in 2018, 44,9 bcm in 2019, 48,2 bcm in 2020, and 59,3 bcm in 2021. There is a 23% change between Turkiye's natural gas demand in 2020 to 2021 since the difference is around 11 bcm from 2020. (OPEC, 2022, p. 82). Turkiye natural gas demand is very high compared to its domestic production.

How much gas does Turkiye import? According to OPEC, Turkiye's natural gas import is at the amount of 55,1 bcm in 2017, 50 bcm in 2018, 45,2 bcm in 2019, 48,1 bcm in 2020, and 58,7 bcm in 2021 (OPEC, 2022, p. 81). Since Turkiye's natural gas production is very low, almost all of Turkiye natural gas consumption up to 2021 are imported from other countries. Turkiye depends massively on natural gas from other countries.

According to data from the Natural Gas Market in Turkiye, in 2010, Turkiye imported natural gas from Russian Federation at 17,576 bcm (46,2%), from Iran at 7,765 bcm (20,4%), from Azerbaijan 4,521 bcm (11,9%), and from combined Algeria and Nigeria at 8,714 bcm (21,5%) (Petform, 2020). In 2015, Turkiye imported natural gas from Russian Federation at 56%, from Iran at 16%, from Azerbaijan at 11%, and from Algeria and Nigeria combined at 15% (Energy Information Administration, 2017).

Table 6 : Natural Gas Imported by Turkiye

Imported From	**2019 Imported Gas**	**2019 Import Percentage**
Russian Federation	14,6 bcm	32,9%
Azerbaijan	9,2 bcm	20,7%
Iran	7,4 bcm	16,7%
Algeria + Others (LNG)	12,9 bcm	29,11%
Total	**44,3 bcm**	**100%**

Source : British Petroleum. *Statistical Review of World Energy 2020.*

In 2019 Turkiye's natural gas energy sources did not change, Turkiye still imports from these 4 countries. Only the amount has changed, Turkiye imported natural gas from Russian Federation at 14,6 bcm (32,9%), from Iran at 7,4 bcm (16,7%), from Azerbaijan at 9,2 bcm (20,7%), and from combined Algeria and other countries in the form of LNG at 12,9 bcm (29,11%). The total of Turkiye's import of natural gas in 2019 amounted to 44,3 bcm (British Petroleum, 2020).

Turkiye imports natural gas in 2 forms, those are natural gas pipelines and LNG. Of the total 44,3 bcm of imports of Turkish natural gas in 2019, Turkiye's

natural gas imports through gas pipelines amounted to 31,3 bcm and through LNG amounted to 12,9 bcm (British Petroleum, 2020). Russian Federation – Turkiye relations in the natural gas energy sector are interdependent. Turkiye takes Russian Federation as the largest natural gas exporter for Turkiye, and Russian Federation takes Turkiye as the fourth largest natural gas importer after Germany, Italy, and Austria.

According to Petform, from 2010 to 2020 Turkiye succeed diversify the volume of natural gas imports from the Russian Federation. In 2010, Turkiye imported 17,576 bcm or equals to 46,2% from Russian Federation while in 2020 Turkiye imported 16,178 bcm or equals to 33% from Russian Federation. Accordingly, Turkiye increases its import from Azerbaijan and LNG. In 2010 Turkiye imported 4,521 bcm or equals to 11,9% from Azerbaijan while in 2020 Turkiye imported 11,548 bcm or equals to 24% from Azerbaijan. From 2010 to 2020, Turkiye succeeds reduce its natural gas imports from Russian Federation and Iran, while Turkiye increases the amount from Azerbaijan and LNG as an alternative (Petform, 2020).

The lack of Turkiye's natural gas production is a massive dependent. In 2020, Turkish natural gas average daily production is 1.250 thousand Sm3 (standard cubic meter), while its natural gas consumption in 2020 is 48,261 billion Sm3. Accordingly, the rate of production meeting consumption in 2020 is 0,91% (Petform, 2020). Based on the lack of natural gas production, with only a 0,91% production rate meeting consumption, Turkiye relies on other countries to import natural gas to meet its domestic demand.

Turkiye strategically positions itself as a bridge country with interregional pipelines between importer and exporter countries. With the new discovery of an enormous natural gas resource in the Black Sea named Sakarya gas field in 2020, Turkiye was able to take part in an active role in the natural gas market. Turkiye is able to utilize the newly discovered natural gas in the Black Sea for domestic needs and reduce natural gas import as well (Ackerman, 2022). Considering Sakarya gas field discovery is about 405 billion cubic meters (bcm) with the first production planned for 2023 (Kaya, 2021).

Potentially, Sakarya gas field able to supply up to 30% of domestic demand in 2023 with an estimated 10 million cubic meters (mcm) per day. Maximum production has been estimated at up to 40 mcm per day by 2028. From Turkiye's point of view, approximately 84% of the natural gas contracts will be expired by 2026, with new discovery of Sakarga gas field, Turkiye has more bargaining power in negotiating the natural gas contract. Turkiye natural gas will supply its domestic market, but if it gives advantages for geopolitical value, an export scheme could be considered (Ackerman, 2022).

As a start in 2023, natural gas production in Sakarta gas field would be estimated to be 3,5 bcm annually. Gradually, the production will increase up to 40 mcm per day and 14-15 bcm per year. With the amount of production, is equal to 30% of the consumption of Turkiye's natural gas in 2020 which amounted to 48,2 bcm while its production is only 441 mcm (Ackerman, 2022). In 2019, Turkiye's natural gas consumption is 43,2 bcm while its production is only 473,8 mcm (British Petroleum, 2020). However, Turkiye has to manage the negotiation for import and export with Russian Federation and Balkans to become a regional energy player.

Table 7 : New-Discovered Turkiye's Natural Gas Fields

Years	**New-discovered Natural Gas Fields**	**Reserves**
2020	Black Sea Sakarya Gas Field	405 bcm
2021	Black Sea off the Northern Zonguldak	135 bcm
Total		540 bcm

Source : Daily Sabah. *Turkiye Unveils New 135 bcm Natural Gas Reserve in Black Sea.* 2021.

In addition, apart from Sakarya gas field, in 2021 Turkiye also discovered another natural gas field in the Black Sea off the northern Zonguldak province with the amount of 135 bcm. Accordingly, the total of all newly discovered natural gas fields is 540 bcm. So far, Turkiye has few natural gas reserves, and is highly dependent on Russian Federation, Azerbaijan, Iran for natural gas and from Qatar, US, Nigeria, and Algeria for LNG. Turkiye imported 48,2 bcm in 2020 and one-third comes from Russian Federation. With newly discovered natural gas reserves,

Turkiye's aim is also to cut dependence on natural gas imports from those countries (Daily Sabah, 2021).

With new discovered natural gas field, the maximum potential of production will be 15-20 bcm in 2026. Moreover, it will meet Turkiye's natural gas needs for approximately 25 years. When the domestic natural gas flows, the expensive imported natural gas will be reduced. Turkiye also provides the cheapest natural gas price for domestic needs in Europe if compared to other European countries. Turkiye percentage for natural gas imports is two-thirds from pipelines and one-third from LNG (Hurriyet Daily News, 2021).

In 2019 Turkiye spent $41 billion to import natural gas to fulfill its domestic needs. Furthermore, Turkiye has 4 four long-term pipelines contract that will be expired. Contract with Russian Federation for Blue Stream Pipelines up to 2025 or 2028 and West Line Pipelines that already end by 2021. Then contract with Azerbaijan lasts until 2021 and with Iran lasts until 2026. Beyond these dates, Turkiye remains to import natural gas, however, newly discovered natural gas fields in Turkiye provide bargaining power to Turkiye to renegotiate the amount of import and the price as well (Cohen A. , 2020).

Table 8 : Turkiye's Natural Gas Import Agreements

Agreement	**Signature Date**	**Operation Date**	**Year**	**Volume**	**End Date**
Nigeria (LNG)	1995	1999	22	1,2 bcm	2021
Iranian	1996	2001	25	10 bcm	2026
Algeria (LNG)	1988	1994	27	4 bcm	2021
Russia (Blue Stream)	1997	2003	25	16 bcm	2028
Russia (Balkans Route)	1998	1998	23	8 bcm	2021
Russia (Balkans Route)	1998	1998	23	4 bcm	2021
Russia (Balkans Route)	2013	2013	23	1 bcm	2036
Russia (Balkans Route)	2013	2013	30	5 bcm	2043
Turkmenistan	1999	-	30	16 bcm	-
Azerbaijan	2001	2007	15	6,6 bcm	2021

Source : Petform. *Natural Gas Market in Turkiye.* 2020

According to the data above, some of the agreements has been ended in 2021, and Turkiye has long-term agreements with Russian Federation until 2048. However, Turkiye intends to renegotiate the natural gas imports while its new-discovered natural gas field operates. Currently, Turkiye diversifies natural gas only between pipelines and LNG, then Turkiye intends to decrease the amount as well.

1.3 BALKANS NATURAL GAS ENERGY DEMAND

Russian Federation exports its natural gas to European countries including the Balkans. In 2019, Russian Federation exported 198,97 bcm (77%) of natural gas to Western European countries and Turkiye. As well as exporting 45,58 bcm (23%) to Central European countries including the Balkans. In more detail, of the total exports of 244,55 bcm (100%) of Russian natural gas to European countries, about 11,62 bcm (4,75%) was exported to the Balkan countries (Gazprom Export, 2020).

In 2019, the Balkan countries as the destination for Russian natural gas exports were Bosnia and Herzegovina 0,24 bcm, Republic of Bulgaria 2,39 bcm, Republic of Croatia 2,82 bcm, Republic of North Macedonia 0,30 bcm, Romania 0,99 bcm, Republic of Serbia 2,13 bcm, and Republic of Slovenia 0,34 bcm. The Russian natural gas market in the Balkans is very different from the Russian natural gas market in Western European countries (Gazprom Export, 2020).

Table 9 : Balkans' Natural Gas Demand, Production, and Imported

Countries	Natural Gas Demand	Natural Gas Production	Imported from Russia	Percentage
Romania	11,5 bcm	9,9 bcm	1,7 bcm	15%
Republic of Bulgaria	3,2 bcm	0,1 bcm	3,1 bcm	97%
Greece	3,8 bcm	0 bcm	2,7 bcm	70%
Republic of Croatia	2,6 bcm	1,6 bcm	0,8 bcm	31%
Republic of Slovenia	0,9 bcm	0 bcm	0,5 bcm	57%
Republic of Albania	0 bcm	0 bcm	0 bcm	0%
Republic of Serbia	2,4 bcm	0,5 bcm	1,9 bcm	79%

Montenegro	0 bcm	0 bcm	0 bcm	0%
Kosovo	0 bcm	0 bcm	0 bcm	0%
Republic of Macedonia	0,2 bcm	0 bcm	0,2 bcm	100%
Bosnia Herzegovina	0,2 bcm	0 bcm	0,2 bcm	100%
Total in 2016	**24,8 bcm**	**12,1 bcm**	**11,1 bcm**	**44,7%**

Source : Furuncu, Y. *The New Dimension of Turkiye - Russian Federation Energy Cooperation Turkstream*. SETA - SİYASET, EKONOMİ VE TOPLUM ARAŞTIRMALARI VAKFI. 2020

How much gas does Balkans produce? In 2016, natural gas production produced by Balkan countries was as follows; Republic of Slovenia 0 bcm, Republic of Croatia 1,6 bcm, Bosnia and Herzegovina 0 bcm, Republic of Serbia 0,5 bcm, Montenegro 0 bcm, Kosovo 0 bcm, Republic of Albania 0 bcm, Republic of North Macedonia 0 bcm, Romania 9,9 bcm, Republic of Bulgaria 0,1 bcm, and Greece 0 bcm. The total natural gas production of the Balkan countries is 12,1 bcm (Furuncu, 2020).

How much Balkans' natural gas demand? Balkans' total natural gas production is still unable to meet the domestic demand of the Balkans. Since Balkans demand natural gas more than its production; Republic of Slovenia 0,9 bcm, Republic of Croatia 2,6 bcm, Bosnia and Herzegovina 0,2 bcm, Republic of Serbia 2,4 bcm, Montenegro 0 bcm, Kosovo 0 bcm, Republic of Albania 0 bcm, Republic of North Macedonia 0,2 bcm, Romania 11,5 bcm, Republic of Bulgaria 3,2 bcm, and Greece 3,8 bcm. The total natural gas demand of the Balkan countries is 24,8 bcm (Furuncu, 2020).

How much gas does the Balkans import? In 2016, in order to fulfill domestic demand for natural gas, the Balkan countries import Russian natural gas. The amount that is imported; Republic of Slovenia 0,5 bcm (57%), Republic of Croatia 0,8 bcm (31%), Bosnia and Herzegovina 0,2 bcm (100%), Republic of Serbia 1,9 bcm (79%), Montenegro 0 bcm, Kosovo 0 bcm, Republic of Albania 0 bcm, Republic of North Macedonia 0,2 bcm (100%), Romania 1,7 bcm (15%), Republic of Bulgaria 3,1 bcm (97%), and Greece 2,7 bcm (70%). The total natural gas imported by the Balkan countries is 12,7 bcm (Furuncu, 2020).

Overall, the Balkan countries' natural gas production is 12,1 bcm and the domestic demand for Balkan countries is 24,8 bcm. Balkan countries need 12,7 bcm of natural gas to meet their domestic demand. To meet their domestic demand, Balkan countries import Russian natural gas with a total of 11,1 bcm or the equivalent of 44,7% of their total domestic demand (Furuncu, 2020).

Table 10 : Balkans' Pattern Natural Gas Demand

Countries	Natural Gas Infrastructure	Natural Gas Production
Romania	Considerable	High
Republic of Croatia	Considerable	High
Bosnia Herzegovina	Developed	Small
Republic of Bulgaria	Developed	Small
Greece	Developed	Small
Republic of Macedonia	Developed	Small
Republic of Serbia	Developed	Small
Republic of Slovenia	Developed	Small
Republic of Albania	No	No
Kosovo	No	No
Montenegro	No	No

Source : Kovacevic. *Towards a Balkan gas hub: the interplay between pipeline gas, LNG and renewable energy in South East Europe*. The Oxford Institute for Energy Studies. 2017.

Based on the pattern, Balkan countries in term of natural gas demand can be divided into 3 groups. The first, Balkan countries without natural gas production and infrastructure, even there is no consumption of natural gas (Republic of Albania, Kosovo, Montenegro). The second, Balkan countries with developed natural gas infrastructure but small production with only around 2-14% (Bosnia and Herzegovina, Republic of Bulgaria, Greece, Republic of North Macedonia, Republic of Serbia, Republic of Slovenia). The third, Balkan countries with considerable gas infrastructure and domestic production (Romania, Republic of Croatia), these

countries only import a small amount of natural gas from Russian Federation (Kovacevic, 2017, p. 8).

Only Romania has a considerable portion of domestic natural gas production, with an amount of around 11 bcm in 2015 and 9,9 bcm in 2016, the forecast of the production remains around the same level until 2025. Romania is also considered as the highest natural gas consumption among Balkan countries. Most of the consumption of natural gas comes from domestic production and only the rest is imported from Russian Federation. Different from Romania, Republic of Bulgaria is considered as the most-energy dependent country on Russian Federation compared to other Balkan countries since more than 90% of the import of natural gas comes from Russian Federation (Asenov, 2018).

Among Balkan countries, Republic of Bulgaria appears as a regional transit hub since Russian newly supplied natural gas pipelines passing through Turkiye connect with the pipeline in Republic of Bulgaria as well. In 2020, the natural gas volume transit via Republic of Bulgaria only reached the amount of 3,8 bcm, while around 80% is used for domestic consumption, because of the lack of natural gas production in Republic of Bulgaria that only reached 31 thousand cubic meters (tcm). With the potential geopolitical location as a transit hub, Republic of Bulgaria starts to develop its transit gas infrastructure and underground natural gas storage (Cepconsult, 2021).

In addition, in 2020 Republic of Bulgaria was able to reduce its dependence on Russian natural gas, at the amount of 76% Republic of Bulgaria's domestic natural gas needs were met by Russian natural gas, while the other 23% of its imports were met by other countries, and only 1% was supplied from its own natural gas production. Furthermore, Republic of Bulgaria also develops a project named 'Balkans gas hub' and the main purpose is to expand the natural gas capacity of Underground Gas Capacity (UGS) Chiren in Republic of Bulgaria, establishing imports of up to one-third of natural gas from Azerbaijan, increasing natural gas supplies through Greek LNG terminal, connecting to the Serbian Gas Transmission System (GTS), providing reserve gas mode operation from Bulgarian GTS in the direction of Moldova and Ukraine (Cepconsult, 2021).

In 2021, gas storage in Bulgaria was inflexible and limited, since most of the gas storage capacity meets the domestic needs and the amount very relied on the supplied natural gas from Russian Federation. Bulgarian role to supply other market demands finds difficulties. The plan between Republic of Bulgaria and Russian Federation is to connect the Bulgarian UGS to the route of Russian gas pipeline TurkStream to Republic of Serbia with an additional 45 km of gas pipelines. Furthermore, Balkans route as the extension from TurkStream (Balkan Stream), may be booked by Russian Federation to ensure the natural gas supply to European markets. Which makes Bulgarian geopolitical value increases due to the pipeline (Cepconsult, 2021).

Among Balkan countries, Republic of Albania, Montenegro, and Kosovo don't have any natural gas production and natural gas infrastructure in their countries. Even they don't use natural gas as energy for domestic needs and they substitute it with another energy source. Kosovo doesn't have the natural gas storage and pipelines as well, while Republic of Albania has a chance to connect to Trans-Adiatic Pipeline (TAP) route and get the benefit as an importer, consumer, and transit hub, and Montenegro has a chance to connect to proposed Ionian-Adriatic Pipeline (IAP) that will connect to TAP from Azerbaijan (Balkan Economic Forum, 2022).

Based on the data above, with the exception of Romania and Republic of Croatia, the rest of Balkan countries are highly dependent on Russian natural gas supply. Russian position in Balkans region is already strong and Russian Federation is able to play its role by utilizing its natural gas supply. From Balkans' point of view, Balkan countries have no options for natural gas except from Russian Federation. Russian Federation supplies its natural gas to Balkans via two routes ; via Trans-Balkan pipelines from Ukraine to Moldova, Romania, Republic of Bulgaria, Greece, and via Hungary to Republic of Croatia, Republic of Serbia, Bosnia and Herzegovina (Asenov, 2018).

Due to the high dependence on Russian natural gas in Balkans, the risk is also considered a high risk. The negative impact of heavy dependence on a single supply source can be found during the Russian-Ukrainian gas crisis in 2009. On the 6th of January 2009, only 10% of the normal supply of gas was supplied to the central

pipeline to Slovakia, the result affected western Hungary, then to Balkans route to Republic of Slovenia and Republic of Croatia. While eastern Hungary, which is a transit place for Republic of Serbia and Bosnia and Herzegovina, only received 20% of the normal supply. The result was natural gas crisis occurred in Balkans region in 2009. This past crisis illustrates very well how Balkans demand for Russian natural gas becomes a major challenge (Asenov, 2018).

CHAPTER II

2. RUSSIAN FEDERATION AND TURKIYE ENERGY POLICIES

2.1 RUSSIAN NATURAL GAS ENERGY POLICIES

As a major player in the global energy market, Russian Federation is able to apply assertive foreign policy to importing countries. Some analysts fear since Russian Federation has the ability to leverage its energy export to intervene in European and Balkans decision-making and gain bigger influence in the region (Strauss Center, n.d.). Russian Federation defines its policies based on its purposes in national interest and Russian position already strong without any bargaining position from Balkan countries, makes Russian Federation implements some policies which further weaken Balkan countries.

Russian energy policy related to Russian national interests. Morgenthau defined the concept of national interest as the minimum capacity of the nation-state to protect its physical, political, and cultural identity from interference by other nations. This concept considers survival as the minimum definition of the concept of national interest (Mas'oed, 1990, p. 164). Russian leaders establish Russian national interests, and among the points of Russian national interest are (Allison & D. Blackwill, 2011, p. 17):

1. Sustaining Russian influence in the post-Soviet region and decreasing competing power or alliance ability to influence the post-Soviet space,
2. Assuring continued revenue flow from Russian energy supply and ensuring that no other state exercises leverage over Russian energy supply.

On May 7, 1995, President Boris Yeltsin issued Russian first post-Soviet energy strategy. The strategy named "*On the Main Directions of Energy Policy and Restructuring of the Fuel and Energy Industry of the Russian Federation for the period up to the year 2020*". This strategy was followed up by the Russian Government on October 13, 1995, by issuing the "*Main Provisions of the Russian Energy Strategy*" (Varol, 2013, p. 125).

Russian Federation has so far had 3 documents describing its energy strategy. The first is *the Energy Strategy of Russian Federation up to the year 2020*, which

was issued in 2003. The main objective of this document is to maximize the use of energy resources for economic growth. The second is *the Energy Strategy of Russian Federation up to the year 2030*, which was issued in 2009. This document has the same objectives as the previous document but with the addition of innovation and efficiency in the Russian energy sector (Campos, 2018, p. 51).

This document also develops the energy sector in 4 transitions, power, resources, the global energy struggle, and the need for interdependence. The third is *the Energy Strategy of Russian Federation up to the year 2035*, which was issued in 2020. This document outlines the internal and external challenges in the Russian energy sector so that changes are needed in the development of the energy sector. The main target is that the Russian energy sector contributes to socio-economic development (Campos, 2018, p. 52).

2.1.1 Russian Federation Energy Strategy up to the Year 2020

When Vladimir Putin came to power as President of Russian Federation, on November 23, 2000, the Russian government approved the document "*Main Provisions of the Russian Energy Strategy to 2020*". In September 2003, the document was extended until 2020. Based on the document of the national energy strategy for the period up to 2020, Russian natural gas production is estimated to reach 680 bcm in the pessimistic scenario and up to 730 bcm in the optimistic scenario (Varol, 2013, pp. 125-126).

The 2003 Energy Strategy of Russian Federation until 2020 stated that Russian Federation considers energy policy closely related to national security (Tosun, 2016, p. 30). The main objective of Russian energy policy under the document was (Varol, 2013, p. 126):

1. Export energy resources,
2. Attract Foreign Direct Investment (FDI) into the national energy section,
3. Energy transport,
4. Advance the exploration and production of Russian energy business activities in other countries, and
5. Expand the existence of Russian companies in foreign markets.

Russian goal of its energy policy is for security purposes. Russian Federation applies non-military ways to expand Russian influence in the international world. The main goal of Russian energy strategy up to 2020 is to use Russian energy resources to expand Russian political power. Russian energy policy documents up to 2020 emphasize that energy resources are very important for Russian geopolitical influence and foreign policy. Russian energy resources are also very important for energy security and sustainable economic growth (Varol, 2013, pp. 126-127).

2.1.2 Russian Federation Energy Strategy up to the Year 2030

After Russian Federation implemented its energy strategy up to the year 2020, Russian Federation needs to update this document to a new one. This is due to the world economic crisis that occurred in 2008 which affected the estimated of Russian energy production, exploitation, and investment. Russian Federation issued a new strategy document to restore its energy section. The aim of the new Russian energy policy is to maximize the usage of energy resources and make energy resources support economic growth. The basic objectives of the energy policy are as follows (Varol, 2013, pp. 127-128):

1. Increasing the effectiveness of energy resource reproduction, extraction, and processing to meet both internal and external demand,
2. Modernization and development of new energy infrastructure in accordance with extensive technological advancements in the nation's energy industry,
3. Creation of a solid institutional setting for the energy industry,
4. Enhancing the economy and energy sector of Russian Federation's energy efficiency in terms of both energy and the environment,
5. Increasing the Russian energy sector's inclusion into the global energy system.

In short, Russian foreign energy policy objectives in the document up to the year 2030 and the goal of the international energy policy is the most effective utilization of Russian energy capacity, which entails high-priced oil and gas exports, the maintenance of Russian dominance in these markets, and lastly, the achievement of the biggest profit margin for the national economy. (Varol, 2013, p. 129).

In its implementation, Russian Federation realizes that the natural gas market is an important issue for Russian energy security. Russian Federation maintains the stability of its energy market in Europe and builds a new energy market in Asia. In addition, Russian Federation is implementing a pipeline policy to supply its energy sources to other countries. Russian Federation builds a pipeline both to the west and east and passes through the importing countries (Varol, 2013, p. 130).

This strategy is focused on 3 phases up to the year 2030. The first phase, in 2013 - 2015, focuses on overcoming the 2008 crisis and building a new economic foundation. The main risk of the first phase is the possible impact of the crisis in a longer duration. Therefore, this phase must remove major barriers, therefore energy policies can be implemented quickly (Government of Russian Federation, 2010, p. 25).

The second phase, in 2015 – 2022, focuses on the transition to innovative development and the development of new economic infrastructure. The risk from the second phase is that Russian energy sector will fall behind due to the crisis. The third phase, in 2022 - 2030, focuses on developing an innovative economy. This phase is characterized by a gradual transition to the future energy sector (Government of Russian Federation, 2010, pp. 26-27).

Based on this strategy, Russian natural gas reserves for 2030 are also estimated at 6.500 bcm. These natural gas reserves consist of reserves in West Siberia 3.000 bcm, East Siberia 1,200 bcm, and the Russian Sea 2.000 bcm. In addition, Russian natural gas production in 2030 is estimated at 885 - 940 bcm (Varol, 2013, p. 128).

Russian Federation adopted a security-oriented policy and used its energy resources as a tool to achieve its political interests. As a result of its energy policy, the West considered Russian Federation as a threat to Western security because Russian Federation used energy as a weapon to strengthen its position in the international world (Tosun, 2016, p. 32).

Through its energy policy, Russian Federation played assertively by controlling gas pipelines, ensuring that every export to Europe goes through its own pipeline or the pipeline has a share in it. Russian Federation has also threatened to

cut off its energy supplies to countries that have economic or political problems with Russian Federation such as what already happened to Ukraine. Russian Federation clearly used energy as an economic and political weapon (Tosun, 2016, p. 33).

2.1.3 Russian Federation Energy Strategy up to the Year 2035

In 2020, Russian Federation updated the Russian Energy Strategy document up to the year 2035. The main targets of this strategy include (Mitrova & Yermakov, 2019, p. 13):

1. Sustaining Russian position in global energy markets,
2. Diversifying energy exports to Asian markets,
3. Ensuring energy availability and affordability for domestic consumers,
4. Reducing energy intensity and emissions,
5. Developing renewable energy systems (RES).

Based on the Russian energy strategy document up to the year 2035, it is estimated that Russian natural gas production will reach 906,6 – 982,9 bcm by 2035. Russian Federation also consistently takes first place in natural gas exports, then takes first or second place in oil exports, and takes third place in exports of coal. In short, the energy sector makes Russian Federation as a world economic power (Mitrova & Yermakov, 2019, pp. 14-17).

In order to achieve Russian energy strategy up to the year 2035, the global energy market is undergoing several changes, those are (Alekseev, et al, 2019, p. 97):

1. Diversification of the national energy structure through renewable energy sources,
2. Transforming the regulation of the world energy market and strengthening the position of consumers,
3. A slowdown in energy demand due to the introduction of new energy technologies,
4. Increasing competitiveness of renewable energy,
5. Expansion of hydrocarbon resources,
6. The emergence of new energy exporters in the Gulf region, Latin America, Australia and Central Asia.

2.2 TURKIYE'S NATURAL GAS ENERGY POLICIES

Turkiye has almost all types of energy but all of them are in limited quantities. In 2012, of all energy resources in Turkiye, natural gas demand was the largest at 32%, followed by coal needs at 31%, petroleum at 27%, and renewable resources at 10%. Turkiye's overall energy import ratio was 73%. However, Turkiye's imports of natural gas reached 98% (Esen, 2016, p. 284). Geographically, Turkiye is close to countries that have 60% of the world's proven oil and natural gas reserves. Accordingly, Turkiye becomes one of the largest natural gas markets in the region (MFA, 2011).

One of the main objectives of Turkiye's energy strategy is to diversify routes and resources to strengthen its energy supply. Turkiye also aims to contribute to regional energy security and a regional trade center in the energy sector. Turkiye's energy strategy related to natural gas are as follow (MFA, 2011):

1. Ensuring the diversification of routes and resources in the supply of oil and natural gas, taking into account the increasing demand and import dependency,
2. Contributing to regional and global energy security,
3. Being a regional trade center in energy.

To become a regional energy trading center, Turkiye is implementing several natural gas pipeline projects, including the South Caucasus Natural Gas Pipeline (SCP), Baku-Tbilisi-Erzurum Natural Gas Pipeline (BTE), Turkiye-Greece Natural Gas Interconnector (ITG), Trans Anatolian Natural Gas Pipeline (TANAP), and TurkStream (MFA, 2011). Turkiye also aims to become a regional energy trading center due to its geographic proximity to major energy producers in Middle East – Central Asia and energy consumers in Europe (IEA, 2021, p. 26).

Even the backbone of the Southern Gas Corridor is the Trans Anatolian Natural Gas Pipeline (TANAP) passing through Turkiye to Europe. In addition, Turkiye's contribution to global energy security is also made through the Turkish Strait. Around 3% of global energy demand is transported through the Turkish Strait (MFA, 2011).

2.2.1 The National Energy and Mining Policy of Turkiye

Turkiye has a 2019-2023 Strategic Plan prepared by the Ministry of Energy and Natural Resources (MENR) as a part of Turkiye's 2023 targets and issued in 2017. Turkiye's energy policy not only comes from its economic growth resulting in increased domestic energy demand but also comes from efforts to reduce the country's dependence on imported energy sources. The 2019-2023 Policy Strategic Plan focuses on 3 main pillars (IEA, 2021, p. 25):

1. Improving energy supply security,
2. Localization, including increasing the use of domestic energy resources, and
3. Improving predictability in energy markets.

Security of Supply. Due to its heavy dependence on energy imports, Turkiye has prioritized energy supply security as one of its strategic pillars. To achieve energy supply security, Turkiye undertakes efforts to explore and improve domestic energy production, diversify sources of energy supply from exporting countries and related infrastructure, and reduce energy consumption through energy efficiency (IEA, 2021, p. 25). Security of supply is one of the priority areas that will determine Turkiye's future energy perspective (Karagöl, Kavaz, Kaya, & Özdemir, 2017, p. 12).

In relation to increasing domestic natural gas production, Turkiye managed to find Sakarya gas field in August 2020 which is the largest gas field discovery in Turkish history. With the discovery of this natural gas field, Turkiye can reduce its dependence on imports from other countries and increase its bargaining position in negotiations with natural gas exporting countries (IEA, 2021, p. 25).

In relation to the diversification of energy supply sources from other countries, Turkiye relies on certain countries to import natural gas, and this poses certain risks around supply security (Karagöl, Kavaz, Kaya, & Özdemir, 2017, p. 16). To overcome these risks, Turkiye has implemented a diversification of energy import routes, therefore Turkiye is not highly dependent only on one country. Such as the TurkStream route from Russian Federation and the TANAP route from Azerbaijan (IEA, 2021, p. 25). In the 2000s Russian Federation was the dominant supplier of natural gas, however, Turkiye started importing natural gas from Iran in

2001 and from Azerbaijan in 2007. Turkiye has diversified its gas supply sources to minimize the risk of supply disruption (IEA, 2021, p. 12).

Turkiye is also diversifying its imports of natural gas in the form of Liquid Natural Gas (LNG) to diversify shipping routes not only through gas pipelines but also through tankers. In order to reduce the effects of supply disruptions, Turkiye built two floating storages and increased the LNG storage capacity (IEA, 2021, p. 26). Even in 2021, Turkiye's natural gas import from LNG already increased from 21,5% in 2010 to 32% in 2020 as another option for natural gas imports via pipeline (Petform, 2020).

In relation to energy efficiency, Turkiye implemented The National Energy Efficiency Action Plan (NEEAP), covering the period 2017-2023 which aims to reduce primary energy consumption by 14% in 2023. The implementation of energy efficiency is expected that Turkiye's energy consumption will decrease (IEA, 2021, p. 26). The demand for Turkish natural gas has continued to increase over the past few decades, making Turkiye takes place as the fourth-largest gas consumer market in Europe (IEA, 2021, p. 139).

In short, the supply security strategies are to increase the diversification of energy resources and supplier countries, to increase the capacity of natural gas and oil storage facilities, to increase the capacity to provide natural gas to the system, to strengthen the infrastructure of energy delivery, and to increase energy efficiency (Karagöl, Kavaz, Kaya, & Özdemir, 2017, p. 11).

Localization. In its efforts to increase energy security implemented in the 2015-2019 Strategic Plan, Turkiye attempts to increase domestic energy production to reduce energy imports. Turkiye focuses on developing renewable resources to reduce fossil energy including natural gas (IEA, 2021, p. 26). In short, the localization strategy is to make progress in renewable energy through local production (Karagöl, Kavaz, Kaya, & Özdemir, 2017, p. 11).

Predictability in Energy Markets. As the third pillar of Turkiye's energy strategy, Turkiye is liberalizing the energy market and increasing the predictability and transparency of its pricing. The liberalization of the gas market is an important factor in Turkiye's efforts to increase transparency in the energy market. Turkiye's

effort is to establish a liberal and competitive natural gas market (IEA, 2021, pp. 28-29). In short, the predictability in energy markets strategies is to improve the energy supply infrastructure, and to revive the energy markets (Karagöl, Kavaz, Kaya, & Özdemir, 2017, p. 11).

2.2.2 Turkiye's Energy Security Challenges

Turkiye imports natural gas from other countries to meet domestic demand. In 2014 Turkiye imported 49 bcm of natural gas, imported 48 bcm of natural gas in 2015, imported 46 bcm of natural gas in 2016, imported 55 bcm of natural gas in 2017, imported 50 bcm of natural gas in 2018, and imported 45 bcm of natural gas in 2019 (MENR, n.d.).

Table 11 : Natural Gas Imported by Turkiye

Years	Import Volume
2014	49 bcm
2015	48 bcm
2016	46 bcm
2017	55 bcm
2018	50 bcm
2019	45 bcm

Source : Republic of Turkiye Ministry of Energy and Natural Resources. *Natural Gas.* Ankara.

Of the 45 bcm of natural gas that Turkiye consumed in 2015, Turkiye only produced 483 mcm in the same year. According to the Ministry of Energy and Natural Resources, Turkiye's natural gas production increased in 2018 and 2019. In 2018 Turkiye's natural gas production increased by 20% and in 2019 Turkiye's natural gas production increased by 11%. Therefore, Turkiye's natural gas imports decreased in 2018 and 2019 (MENR, n.d.).

The state-owned Turkish Petroleum Corporation (TPAO/ Türkiye Petrolleri Anonim Ortaklığı) controlled 51% of Turkiye's natural gas reserves in 2018. There were about 15 active companies producing natural gas between 2014 - 2018 in Turkiye. TPAO produced about 60-70% of Turkiye's domestic natural gas production and produced 74% in 2018. Apart from that, the state-owned Petroleum Pipeline Company (BOTAŞ/Boru Hatları İle Petrol Taşıma Anonim Şirketi) is the sole operator of the gas transmission system (IEA, 2021, pp. 140-141).

In the case of Turkiye's energy security, Turkiye is not an energy producing-country. In order to meet domestic demand, Turkiye must import energy from other countries. Turkiye's energy consumption mostly comes from a producing-countries, so what must be considered is the import dependency ratio and the diversity of energy supplies. If the import ratio increases, the vulnerability to energy security also increases. The solution to maintaining energy security is to provide a diversified supply (Kaynak, 2018, s. 81).

Turkiye is a country that is dependent on energy imports from year to year. Turkiye's energy dependence ratio from other countries has always increased in the period 2000-2007. In that period of years, Turkiye's domestic energy supply ratio decreased every year. It was noted that in 2000 the ratio of domestic energy supply to demand was 33,1%, but this figure decreased to only 25,5% in 2007. Even this dependency ratio increased to a significant stage on energy imported by Turkiye. When Turkiye's domestic energy supply did not meet energy demand, energy imports were increasing (Kumaş, 2010, pp. 22-23).

Up to 2010, natural gas was one of the primary energies used in Turkiye. In fact, the demand for natural gas was increasing from year to year. However, Turkiye has limited natural gas reserves and imports significant amounts of natural gas to meet natural gas demand. Based on data from the Ministry of Energy and Natural Resources of Turkiye, Turkiye only produced 1 mcm of natural gas per year, while Turkiye's natural gas consumption was 36 mcm per year. This production and consumption gap caused 97,3% of Turkiye depends on natural gas from other countries (Kumaş, 2010, pp. 25-27).

To meet the domestic natural gas demand up to 2010, Turkiye fulfilled its natural gas from 5 countries. Russian Federation contributed 63% of Turkiye's natural gas, Iran contributed 15,5% of Turkiye's natural gas, Azerbaijan contributed 7,9% of Turkiye's natural gas, and the rest was contributed by Algeria and Nigeria in the form of Liquid Natural Gas (LNG) (Kumaş, 2010, p. 27).

A major percentage of Turkiye's energy supply comes from other countries. Consequently, Turkiye's energy policy is supply-oriented and highly dependent on imports. Turkiye's energy profile which is highly dependent on other countries forms the basis of Turkiye's relations with natural gas-producing countries such as Russian Federation (Kumaş, 2010, p. 38).

However, with the total of newly discovered natural gas field 540 bcm in the Black Sea Sakarya field and Black Sea off the Northern Zonguldak, Turkiye is able to reduce its dependence on Russian Federation and other countries since Turkiye able to use the newly discovered natural gas fields to meet its domestic demand. The production starts in 2023 and will reach its peak at 2026. With the amount of production, it equals to around 30% of Turkiye natural gas consumption in 2020 (Daily Sabah, 2021).

Turkiye is able to bargain in negotiating the new natural gas contract with Russian Federation and other countries after some of the natural gas contracts end in 2026. With the newly discovered natural gas fields, Turkiye can play an active role in the regional energy market. However, it depends on the production of the newly discovered gas fields and the power to renegotiate the contract.

2.2.3 Important Natural Gas Pipelines between Russian Federation and Turkiye

Turkiye is the only country that neighbors all of the Caucasus, Balkans, and the Middle East at once. Turkiye neighbors the Middle East which is considered the richest region in the world and also the Caspian region as the safe energy reserve area for Europe. Turkiye's geostrategic position is as an East-West Transit country, which means transmitting rich energy resources from the Caspian basin to Europe. Apart from being an area traversed by an energy pipeline, Turkiye is also involved in

energy projects such as the North-South corridor and the East-West corridor. Turkiye is a key country for European countries to avoid the energy crisis. Therefore, Turkiye has always been involved in energy cooperation between many parties (Hodaloğulları & Aydın, 2016, p. 747).

Turkiye is a crossroads in the supply of energy from the Caspian region to the international market. Turkiye has an important strategic position that cannot be separated from the Caspian region, the Middle East, and Russian Federation. Turkiye becomes an energy corridor through projects passing through its territory. Turkiye seeks to become an energy corridor that carries energy in Central Asia and the Caucasus while keeping its relationship from harming Russian Federation as a giant energy source. Turkiye considers Russian Federation as a major trading partner for Turkiye. Turkiye is in a position that has great advantages but also challenges to maintaining relations with all parties (Hodaloğulları & Aydın, 2016, p. 747).

Russian Federation realizes Turkiye's potential as a strategic region and Russian Federation realizes that Russian Federation also depends on Turkiye when it comes to natural gas pipelines. Therefore, Russian Federation decides to involve Turkiye in its natural gas supply policies. In carrying out its energy security, Russian Federation has played a big role in supplying natural gas to Northern European countries. In ensuring its energy security for Southern European countries, Russian Federation built several natural gas pipelines, as follows (Hodaloğulları & Aydın, 2016, p. 748) :

1. Trans-Balkan Pipeline (West Line)

   The pipeline is 845 km away and supplies Russian natural gas to Turkiye from the Bulgarian border and reaches Ankara by following the Hamitabat, Ambarlı, Istanbul, Izmit, Bursa, and Eskişehir routes (Hodaloğulları & Aydın, 2016, p. 748). This is the first supply of Russian natural gas to Turkiye, even the main purpose is to reach Balkans market, the last route of the Trans-Balkan Pipeline reaches Turkiye as well. This agreement was made in 1986 and in 1987 the first supply made by Russian Federation to this pipeline (IEA, 2021).

2. Blue Stream Pipeline

   The Blue Stream Project is one of the largest agreements Turkiye has made in the field of natural gas. This agreement is Turkiye's third natural gas purchase agreement from Russian Federation after two previous agreements were made in the form of the Trans-Balkan Pipeline. The agreement has been criticized for increasing dependence between Turkiye and Russian Federation because it delivers directly from Russian Federation to Turkiye. This agreement lasts 25 years and delivers Russian natural gas to Turkiye through the Black Sea (Hodaloğulları & Aydın, 2016, p. 748).

   Initially, this agreement regulated the delivery of 2 billion cubic meters of natural gas to Turkiye, but in the end, the quantity delivered natural gas increased to 16 billion cubic meters. Turkiye was not allowed to export Russian natural gas to other third countries without Russian permission. In 2002, before the Bule Stream project started, Turkiye was the third-largest consumer of Russian natural gas out of a total of 20 European countries that purchased natural gas from Russian Federation. However, after the Blue Stream Pipeline started to operate, Turkiye was Russian second-largest natural gas consumer after Germany (Hodaloğulları & Aydın, 2016, p. 749).

3. Blue Stream Pipeline II Project

   In 2002 Russian Federation announced a gas pipeline project that would parallel the Blue Stream pipeline, in 2005 President Putin announced the Blue Stream II Project to Turkiye. In 2007 Russian Federation left the discussion about the Blue Stream II project since Russian Federation proposed the South Stream Project. In 2009 Russian Federation proposed a new route regarding the Blue Stream II project which would supply natural gas to Syria, Lebanon, Israel, and Cyprus. However, the Blue Stream II Project was canceled due to further developments regarding energy security in the region (Koutroumpis, 2019).

4. South Stream Pipeline Project

   The South Stream project is a pipeline project connecting Russian Federation with Republic of Bulgaria via the Black Sea. The pipeline would be built with

a planned length of 2.000 km away. Once the South Stream gas pipeline reaches Republic of Bulgaria, Russian Federation divides the two routes for gas supply to Europe, named to the North and South. Through the South Stream Pipeline, Turkiye would increase its dependence on Russian Federation for natural gas, therefore this project received a lot of criticism. On the other hand, Turkiye was also trying to reduce dependence on Russian natural gas through the Nabucco pipeline, but Turkiye still expressed its interest in the South Stream pipeline. However, this project faced obstacles from the European Union (Hodaloğulları & Aydın, 2016, p. 749). South Stream was planned for approximately 63 bcm per year (Abay, 2022).

5. TurkStream Pipeline

   Due to the disagreement with the European Union, Russian Federation canceled the South Stream Project and announced it would build a natural gas pipeline to Turkiye without going through Ukraine. With this project, Russian Federation gains a European market while strengthening Turkiye as an energy transit country. This new pipeline clearly increases Turkiye's dependence on Russian natural gas. In addition, the pipeline also describes Russian strength as an energy source country and its success in using pipelines as a tool for Russian foreign policy (Hodaloğulları & Aydın, 2016, p. 749).

CHAPTER III

3. RUSSIAN FEDERATION AND TURKIYE EXISTING ENERGY COOPERATION

3.1 HISTORICAL DEVELOPMENT OF RUSSIAN FEDERATION AND TURKIYE NATURAL GAS RELATIONS

During the Cold War, Turkiye was an important actor because of its geopolitical position between Asia and Europe. The West considered Turkiye as one of the Western security systems against the Soviet Union and the Eastern Bloc. However, the relationship of mistrust between Russian Federation and Turkiye ended in the 1960s - 1970s when bilateral relations between the two countries started to revive. In the 1980s, the regional balance of power started to change since Turkiye and Russian Federation competed with each other and cooperated in the Caucasus, Balkans, and Middle East regions (Hodaloğulları & Aydın, 2016, p. 746).

During this period, Turkiye's oil refineries and industrial facilities were built with the help of the Soviet Union. On September 9, 1984, Turkiye and Russian Federation signed the first natural gas agreement. On September 18, 1984, cooperation was continued through Soyuzgazexport to complete a commercial contract and BOTAŞ for potential gas consumption as well as a pipeline route in 1985. Under this agreement, in 1987 as much as 6 billion cubic meters (bcm) of natural gas was delivered to Turkiye through the Western (Trans-Balkan) pipeline. Natural gas was supplied by Russian Federation through Ukraine, Moldova, Romania, Republic of Bulgaria, and reached Turkiye (Hodaloğulları & Aydın, 2016, p. 746).

In fact, the Soviet Union carried out policies to increase Turkiye's interest in Soviet energy resources. The Soviet Union used most of the profit from natural gas delivered to Turkiye to buy Turkish goods and services that were sold under market conditions. Russian Federation and Turkiye signed a second agreement regarding the purchase of Russian natural gas on December 10, 1996. The agreement mentioned Turkiye agreed to purchase additional natural gas from Russian Federation in the

amount of 8bcm over 23 years. This agreement was a parallel agreement to the previous natural gas agreement (Hodaloğulları & Aydın, 2016, p. 746).

In addition, both Turkiye and Russian Federation are member countries of the Black Sea Economic Cooperation (BSEC). Among the BSEC countries, Russian Federation, Romania, and Republic of Bulgaria are Turkiye's main trading partners. In these years, Turkiye – Russian Federation trade was the highest, reaching 47,9% of Turkiye's total foreign trade volume with BSEC member countries. The importance of Russian Federation to Turkiye was that Russian Federation became half of Turkiye's trade destinations with BSEC countries. Both Russian Federation and Turkiye were the two largest and dominant countries in the BSEC. Even the relationship between the two countries also affects countries in the region (Hodaloğulları & Aydın, 2016, p. 746).

The third Russian Federation - Turkiye natural gas agreement is the Blue Stream Pipeline agreement signed on the initiative of Russian Federation. Russian Federation declared absolute sovereignty in the Turkish natural gas market through this agreement. Discussions of the Blue Stream project created tensions between Russian Federation and Turkiye, but the project was successfully completed on December 30, 2002 (Hodaloğulları & Aydın, 2016, p. 747).

Apart from that, in 2009 Russian Prime Minister Vladimir Putin visited Turkiye and Turkiye provided its support for the South Stream Pipeline project as a rival to the Nabucco Pipeline project. In 2014, Russian President Vladimir Putin visited Turkiye to continue discussing natural gas cooperation. Russian Federation had tensions with the EU due to Ukraine which made Russian Federation – Turkiye relations became closer. Russian Federation – Turkiye proximity also enhances bilateral cooperation between them (Hodaloğulları & Aydın, 2016, p. 747).

3.2 TRANS-BALKAN PIPELINE

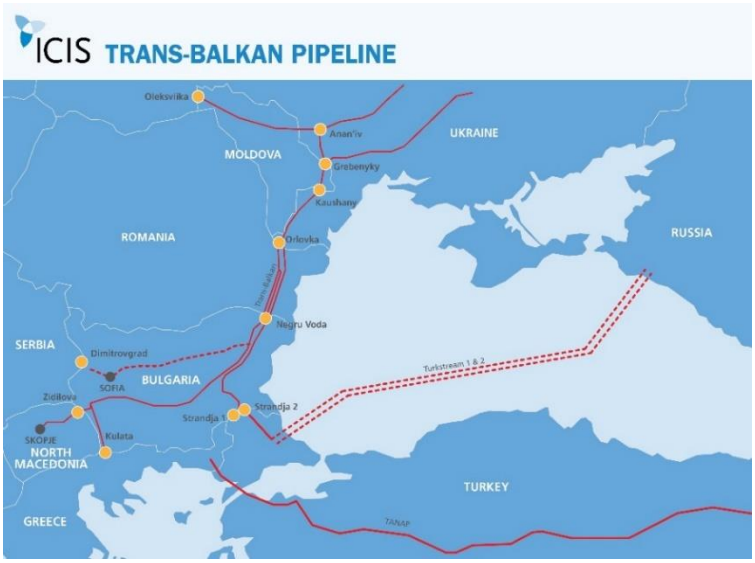
Turkiye first received Russian gas supplies through the Trans-Balkan Pipeline (West Line) in 1986. The Western line entered Turkiye at the Malkoçlar entry point on the Bulgarian border. The line was extended to reach Ankara in 1988. The pipeline capacity of the Trans-Balkan pipeline is 18,8 bcm per year. As of 2020, the

Trans-Balkan pipeline has not been used as the volume is now supplied via the TurkStream pipeline (IEA, 2021, p. 150).

The Trans-Balkan Pipeline supplied Russian natural gas through Ukraine, Republic of Moldova, Romania, and Republic of Bulgaria, then supplied Turkiye, Republic of Bulgaria, Greece, and Northern Moldova through the Bulgarian – Turkish border. The Trans-Balkan Pipeline is a North-South pipeline with an 845 km length and 26,8 bcm total volume passing through Ukraine. From these volumes, 14 bcm were supplied to Turkish natural gas demand. Turkiye imports Russian natural gas via the Trans-Balkan Pipeline through the state company BOTAS and 7 independent importers since the 1986 agreement (Cohen G. , 2017, pp. 10-11).

In 1987, the first import of Russian natural gas to Turkiye was carried out at a volume of 6 bcm per year for 25 years (1987 - 2011). In 1998, Russian Federation and Turkiye renewed their contract with an additional volume of 8 bcm per year until 2022. Accordingly, the total volume supplied by Russian Federation to Turkiye through this route is 14 bcm per year. In 2007, BOTAŞ released a 4 bcm contract to be handed over to a private company (Cohen G. , 2017, p. 11). In 2011, the contract for the supply of natural gas from Russian Federation of 6 bcm through the Trans-Balkan Pipeline expired and was not extended by BOTAŞ. In 2013, 4 Turkish private companies imported 6 bcm of natural gas through the Trans-Balkan Pipeline (IEA, 2016, p. 108).

Figure 1 : Trans-Balkan Pipeline



Source : Sabadus, A. *Ukraine, Turkiye Emerging as Eastern European Gas Transit Options*. Retrieved 5 21, 2021, from www.icis.com: https://www.icis.com/explore/resources/news/2019/12/05/10450843/ukraine-Turkiye-emerging-as-eastern-european-gas-transit-options

In total, there are 7 private companies that import 10 bcm of Russian natural gas through the Trans-Balkan Pipeline. The remaining 4 bcm is imported by BOTAŞ and expires in 2021 (IEA, 2016, p. 108). In 2019, Russian and Ukrainian natural gas transit contracts ended, and Russian-Turkish natural gas supplies were diverted to the TurkStream pipeline 1 with a capacity of 15,75 bcm per year. Accordingly, the Trans-Balkan Pipeline was replaced by the TurkStream pipeline in supplying Russian natural gas (Cohen G. , 2017, p. 11).

The point of view of Russian energy security and national interest in the case of the Trans-Balkan Pipeline is that Russian Federation has an interest in maintaining Russian Federation's influence in the region. To achieve these Russian interests, Russian Federation used its energy resources as political weapons and integrated Russian energy resources with the region's energy system. Russian Federation fulfilled the energy availability factor, then Russian Federation proved its reliability by supplying energy to Turkiye via Ukraine, Moldova, Romania, and Republic of Bulgaria, Russian Federation also set the price of natural gas to Turkiye. Russian Federation's goal is to fulfill the security of demand. With the large demand, Russian Federation has fulfilled its national interest, which is maintaining its influence in the region.

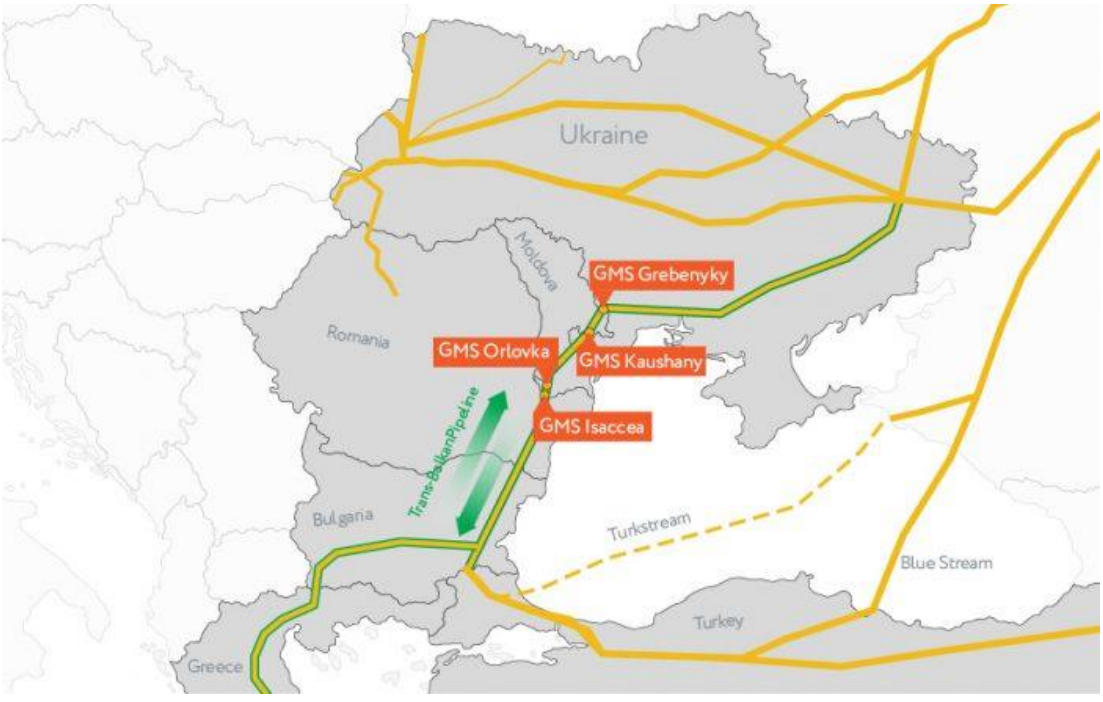
Meanwhile, according to the point of view of Turkiye's energy security and national interest in the case of the Trans-Balkan pipeline, Turkiye's national interest is to maintain its own physical and political identity, therefore Turkiye must ensure that Turkiye is able to fulfill its energy supply in any way. Considering energy supply is the same as the survival of a country itself. Even though Turkiye is not able to fulfill all the factors of energy security, however, Turkiye has succeeded in fulfilling the security of supply as an energy security goal by obtaining natural gas supplies from Russian Federation and other exporting countries even though it goes through third countries. Security of supply is the most important factor that has to be fulfilled since the rate of production meeting consumption is only 0,91% in 2020.

3.3 TRANS-BALKAN PIPELINE AFTER 2020

After the supply of Russian natural gas to Turkiye in the Trans-Balkan Pipeline was diverted to the TurkStream Pipeline, the Republic of Bulgaria-Turkiye connection infrastructure was continued with the plan of TurkStream II and Balkan Stream to supply to Republic of Bulgaria and other countries. Meanwhile, the infrastructure connecting Republic of Bulgaria-Ukraine is no longer used. There are two options for natural gas infrastructure connecting Republic of Bulgaria-Ukraine, either deactivating the infrastructure or upgrading the pipeline by creating a north-south or south-north corridor (Cohen G. , 2017, p. 12).

After the supply of Russian natural gas was diverted from the Trans-Balkans to the TurkStream Pipeline, the geostrategic value of the Trans-Balkan Pipeline decreased dramatically. Even in 2020, it is estimated that the volume of natural gas transit in the Trans-Balkan Pipeline is at most 1 bcm or equivalent to 3-4% of the utilization rate. In this condition, the Trans-Balkan transit corridor needs to be reviewed (Makagon, Time for Europe to rethink the Trans-Balkan pipeline, 2020).

Figure 2 : Trans-Balkan Reverse Flow Idea



Source : Makagon, S. (2020). *Rethinking the Trans-Balkan pipeline*. Retrieved November 13, 2022, from https://tsoua.com: https://tsoua.com/en/news/rethinking-the-trans-balkan-pipeline/

In 2015, the idea of a reverse flow to Ukraine was introduced to create a two-way alternative. In 2020, Ukraine also carried out a request for a South-North transmission. This request was submitted by local commodity traders with a demand for natural gas from Greece through Republic of Bulgaria, Romania, and Ukraine. With this demand for natural gas, it is estimated that the Trans-Balkans Pipeline can be an alternative in the future. For example, if the TurkStream Pipeline or TANAP experienced a natural gas supply disruption, the natural gas flow could pass through the Trans-Balkans Pipeline (Makagon, 2020).

Natural gas transit via Trans-Balkan corridor has changed drastically in 2020. Natural gas transit via Trans-Balkan corridor amounted to 17 bcm in 2015, 18 bcm in 2016, 20 bcm in 2017, 18 bcm in 2018, 10 bcm in 2019, and decreased drastically to 1 bcm in 2020. The big difference on the amount of transit caused by the agreement has ended and Russian Federation preferred to supply natural gas via another route than the Ukrainian route (Makagon, 2020).

The Trans-Balkan corridor provides Balkan countries access to natural gas and Ukraine's largest storage facility in Europe. However, to maintain the Trans-Balkan corridor, which is no longer used, a large volume of natural gas is required for the expenditure of countries passing the Trans-Balkan corridor. It is very difficult to activate the Trans-Balkan corridor if it uses only a small volume of natural gas supply (Makagon, Time for Europe to rethink the Trans-Balkan pipeline, 2020).

There are several developments regarding energy security around the Eastern Mediterranean and the Black Sea such as the discovery of new gas fields in the territorial waters of Egypt, Cyprus, Turkiye, and the construction of an LNG terminal in Greece. This development could have an impact on regional energy cooperation. However, due to the complexity of these developments, it cannot be predicted what will happen to the Trans-Balkan Pipeline in the future (Makagon, Time for Europe to rethink the Trans-Balkan pipeline, 2020).

Around the Trans-Balkan Pipeline corridor, Romania has the second-largest natural gas reserves in the European Union, but there is a policy to limit the export for countries outside the European Union. If in future Ukraine proposes a South-North natural gas supply, it is predicted that it will involve Romania and/or Greece. Considering as a natural gas-producing country, Romania will benefit from the Trans-Balkan pipeline (Makagon, Time for Europe to rethink the Trans-Balkan pipeline, 2020).

As another option, Azerbaijan is one of the lists of possibilities for the reverse flow of South-North natural gas. Azerbaijan is able to supply natural gas to Trans-Balkan pipeline only if Turkiye signs the agreement with Azerbaijan that Turkiye as a transit country. Azerbaijani President Ilham Aliev mentioned the possibility after the interconnector pipeline between Greece – Republic of Bulgaria was inaugurated on October 2022. Azerbaijan needs the transit agreement with Turkiye, otherwise, it will face difficulties (Interfax, 2022).

At the moment, the negotiation between Azerbaijan and Turkiye still continues and an agreement is needed to increase the supply of natural gas to Europe apart from Russian natural gas. In addition, there is also a possibility to increase the capacity of the TAP pipeline from 10 bcm to 20 bcm, then there is also a possibility to increase the capacity of TANAP from 16 bcm to 32 bcm since TANAP is almost fully used. To ensure the amount increase of natural gas to Europe, the agreement between Azerbaijan and Turkiye becomes significant (Interfax, 2022).

3.4 BLUE STREAM PIPELINE

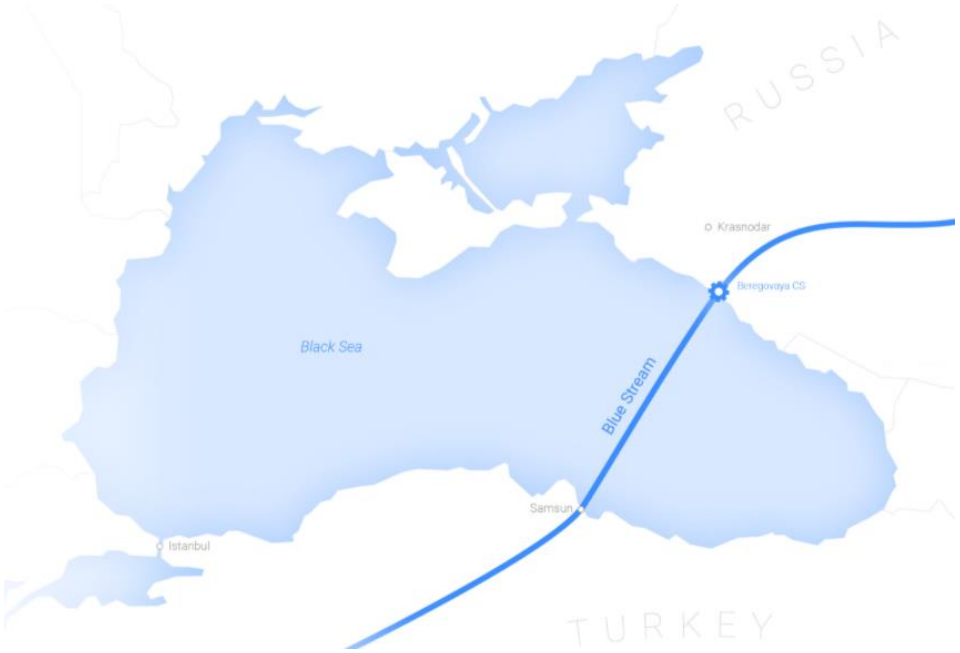
In November 1998, Russian Gazprom and Italy's ENI (Ente Nazionale Idrocarburi) signed a Memorandum of Understanding for joint participation in the Blue Stream Pipeline Company BV (BSPC) which will enable the delivery of Russian natural gas to Turkiye through the Black Sea (Blue Stream Project). In 1999, BSPC signed contracts with a consortium of several companies. The project was planned to have a route from the land area in Russian territory from Stavropol to the Black Sea (controlled by Gazprom), then across the Black Sea (controlled by the

BSPC), and finally on the Turkish part of the land from Samsun to Ankara which is controlled by BOTAŞ (Caruso, Dicorrado, & Borovik, p. 1).

The Blue Stream Pipeline has significantly increased the reliability of natural gas supplies to Turkiye and contributed to Turkiye's gas market. The main partners in the Blue Stream project are Russian Gazprom, Italy's ENI, and Turkiye's BOTAŞ. Construction of the Blue Stream began in 2001 and was completed in May 2002. In December 2002, the gas pipeline was operated and gas supplies to Turkiye began in February 2003 (Gazprom, n.d.).

The Blue Stream Pipeline is a natural gas pipeline delivering Russian natural gas to Turkiye directly through the Black Sea. The Blue Stream Pipeline has a length of 1.231 km and has been in operation since 2003. The Blue Stream Pipeline started in 2003 and was expected to reach full capacity by 2010. The Blue Stream Pipeline delivered 7,5 bcm of Russian natural gas to Turkiye in 2006, increasing to 10 bcm of natural gas in 2007, and a full natural gas capacity of 16 bcm in 2010 (Kumaş, 2010, p. 35). The Blue Stream Project will last 25 years (Bacik, 2010, p. 89).

Figure 3 : Blue Stream Pipeline



Source : Gazprom. (n.d.). *Blue Stream*. Retrieved 5 21, 2021, from www.gazprom.com: https://www.gazprom.com/projects/blue-stream/

The options for the pipeline route give political power to those on its path. The Blue Stream project is an ambitious project to increase the political power of Russian Federation and Turkiye. In 1997, Russian Federation and Turkiye signed the Blue Stream project for a maximum shipment of 16 bcm per year from Russian Federation to Turkiye. The competitor for the Blue Stream Project was Turkmen gas, but Turkiye chose the Blue Stream Project considering the shipping costs were cheaper since it goes directly from Russian Federation to Turkiye (Özdemir V. , 2007, p. 138).

The aim of developing the Blue Stream is not only to increase Turkiye's dependence on Russian Federation, but also to eliminate third countries from delivering Russian natural gas to Turkiye. Russian Federation and Turkiye recognize that Turkiye's geostrategy is very important as a regional energy corridor. Consequently, Russian energy supply to importing countries cannot be separated from Turkiye's territory (Kumaş, 2010, p. 93).

In the 1990s, Turkiye's economy at that time was growing and economy was growing hand in hand with the demand for natural gas. Russian Federation was the best option for Turkiye to supply natural gas considering Russian Federation was a reliable source of energy without interruption. At the same time, Russian Federation was looking for a market for its energy resources for its economic growth (Kaynak, 2018, p. 82).

During this period, Turkiye and Russian Federation were both competing to demonstrate their strength in the region. Both were involved in political developments in the region and were in opposite positions. Such as the involvement of Russian Federation in the case of the disintegration of Yugoslavia, and the involvement of Turkiye in the scope of NATO in the Bosnian and Kosovo crisis. In the crisis of Azerbaijan and Armenia, the positions of Turkiye and Russian Federation were in opposite positions (Kaynak, 2018, p. 83).

Another example was in the Nagoro-Karabagh conflict, Russian Federation and Turkiye also returned to conflict since Turkiye positioned itself together with the West. Armenia supported Russian Federation against Azerbaijan but Turkiye and the West established the Baku - Tbilisi - Ceyhan oil route that passes through

Azerbaijan. However, the list of differences between Turkiye and Russian interests in the region has no impact on Turkiye and Russian Federation cooperation in the Blue Stream Project. For Turkiye and Russian Federation, this cooperation was an effort to maintain strong relations between the two countries (Kaynak, 2018, p. 83).

The Blue Stream Project has increased Turkiye's dependence on Russian Federation in the energy sector. But at the same time, Turkiye did not find another reliable alternative source of energy. Russian Federation has become a dominant player in Turkiye's energy market through the Blue Stream Project. Even the import of natural gas from Iran and Azerbaijan was not able to reduce Russian dominance since it did not meet the volume that Russian Federation provides (Kaynak, 2018, p. 83).

In 2001, Turkiye's total natural gas consumption was 16,027 bcm and Turkiye's total natural gas imports were 16,368 bcm. BOTAŞ predicted that in 2003 Turkiye's natural gas needs would increase to 25,8 bcm, in 2005 it would increase to 32,2 bcm, and in 2010 it would increase to 55,1 bcm. Turkiye has predicted that Turkiye's natural gas demand far exceeds the availability of imported natural gas, and to fulfill that Turkiye needs additional natural gas imports to meet domestic demand (Özdemir V. , 2007, p. 139).

Before the Blue Stream Project was completed, Turkiye imported natural gas from 4 sources, those were from Russian Federation at 11,603 bcm, from Iran at 0,67 bcm, from Algeria (LNG) at 4 bcm, and from Nigeria (LNG) at 1,27 bcm. Turkiye's dependence on Russian natural gas was already high before the Blue Stream Project started, and Russian Federation even dominated the Turkish natural gas market. The Blue Stream Project cooperation was criticized for increasing Turkiye's dependence on Russian Federation. This issue concerned not only energy and economic security, but also Turkiye's national security (Özdemir V. , 2007, p. 139).

The European Commission provided a limit on the level of dependence of a country on importing energy at a maximum dependency level of 30%. However, if the Blue Stream Project was completed, Turkiye's natural gas dependence on Russian Federation would be at 66%. Accordingly, the large Russian dominance in Turkiye's

energy market has resulted in the loss of competition in the energy market (Özdemir V. , 2007, p. 139).

The domestic situation in Turkmenistan, which had low natural gas production constraints, had negatively affected Turkiye's project as an East-West corridor through the Baku - Erzurum gas pipeline and the Trans Caspian Turkmen gas pipeline. In addition, Turkiye chose Russian Federation and alienated Turkmenistan from the option of natural gas sources (Özdemir V. , 2007, p. 142). When Turkiye decided to choose the Blue Stream Project over Turkmen gas, Turkmenistan decided to sell its natural gas to Russian Federation at a low price (Tiftikçigil & Yesevi, 2014, p. 63).

In 1998, Turkiye and Turkmenistan signed an agreement to build a new pipeline within the framework of the Trans-Caspian Gas Pipeline Project (TCGP) to bring 30 billion cubic meters (bcm) of natural gas to Turkiye. However, this project faced several obstacles, including disputes between Iran, Turkmenistan, and Azerbaijan regarding who owned the energy resources in the Caspian Sea. Besides that, another problem was the problem of financing (Bacik, 2010, p. 90).

The Turkiye-Turkmenistan cooperation project would reduce Turkiye's dependence on Russian Federation for natural gas but the Blue Stream Project between Turkiye-Russian Federation eliminated Turkmen’s plans. The Blue Stream Project was also suspected of worsening Turkiye's relations with Turkmenistan and Azerbaijan since both countries did not get benefit from Turkiye and the European Union market (Bacik, 2010, p. 90).

The problem in Turkmenistan was not only about the lack of natural gas production, but there was also another problem that came from Russian Federation there. In 2002, Russian Federation succeeded in importing natural gas at a cheap price from Turkmenistan for 40 USD / 1000 meters cubic (mc) and selling it to Turkiye for 130 USD / 1000 mc. In 2007, the price increased to 260 USD / 1000 mc. Turkiye's decision of prioritizing the Blue Stream, in the end, created strategic and economic problems for Turkiye itself (Özdemir V. , 2007, p. 143).

Turkiye's policy of prioritizing the Blue Stream over Turkmen gas was a victory for Russian Federation. Turkiye staked its position as an energy hub

connecting East and West. Turkiye's policy also had an impact on Turkiye and the European Union relations, in particular on Turkiye's membership in the European Union. In fact, in 2006 the EU's natural gas imports were at the level of 50% of their total energy consumption and are expected to continue to increase (Özdemir V. , 2007, p. 143).

The European Union has been importing natural gas from 3 main sources; Russian Federation, the North Sea, and North Africa. The European Union insisted to make Turkmenistan, which passes through Turkiye, as its fourth source of natural gas imports. The European Union does not want to depend on Russian Federation as one source of energy imports. The EU (European Union) was looking for new energy sources and alternative routes for their energy security. Through the Trans-Caspian Project which delivers gas from Turkmenistan, Turkiye could offer this position to the European Union. But Turkiye had lost its position in the European Union since Turkiye chose Russian Federation and Turkiye's energy dependence on Russian Federation was increasing (Özdemir V. , 2007, p. 143).

Turkiye's decision had an impact on US-Turkiye and EU-Turkiye relations. Turkiye undermined US strategy by signing the Blue Stream Project over Turkmen gas. Turkiye's decision not only had an impact on Turkiye's relations with the West, but also had an impact on the EU's energy dependence on Russian Federation. The European Union desired to reduce its energy dependence on Russian Federation but it was unsuccessful since Turkiye preferred the Blue Stream project. If the EU's energy dependence on Russian Federation remains high, it could have an impact on decision-making in NATO as well (Özdemir V. , 2007, p. 144).

The point of view of Russian energy security and national interest in the case of the Blue Stream Pipeline is that Russian Federation was facing threats to its national interest to maintain its influence in the region. With the presence of Western interests in the Nabucco project, Russian Federation was in danger of losing its energy market in Turkiye and Europe since they can get energy sources other than Russian Federation. When Turkiye and Europe's dependence on Russian Federation decrease, then Russian influence in the region will also decrease, consequently Russian national interest will be threatened. Russian Federation struggled for its national interest by negotiating with Turkiye on the Blue Stream project. After

Turkiye chose Russian Federation, Russian Federation bought natural gas from Turkmenistan to be resold by Russian Federation. Therefore, Western interests in the region were lost after Turkiye and Turkmenistan chose to cooperate with Russian Federation.

The point of view of Turkiye's energy security and foreign policy in the case of the Blue Stream Pipeline is that Turkiye was starting to be aware of Western interests in its region and Turkiye was implementing a "zero problem with neighbors" policy, so that Turkiye chose the Russian Blue Stream project over the West's Nabucco project. Although Turkmenistan's natural gas was cheaper than Russian natural gas, Turkiye under the AKP (Adalet ve Kalkınma Partisi) has chosen to avoid Western interests while seeking to take advantage of its strategic geopolitical territory.

In 2021, Gazprom Russian Federation announced the natural gas supply to Turkiye via Blue Stream pipelines reached its highest record after the annual supply reaches 15,98 bcm with the capacity of the fully used pipeline is 16 bcm per year. Since the operation of Blue Stream pipeline in 2003, the natural gas supply via Blue Stream pipeline in 2021 is the biggest record between Russian Federation and Turkiye. Russian Federation mentioned this is due to the growing demand from Turkiye (Kuczyński, 2022).

Even Russian Federation realizes the European markets demand for natural gas is bigger in autumn and towards the winter, Russian Federation keeps its purpose in the last several months to cutting off natural gas to Europe step by step to limit the supplies. However, even European markets struggling with the shortage of natural gas, Gazprom supplied natural gas to another market (Turkiye) and reached the highest record via Blue Stream (Kuczyński, 2022).

3.5 BLUE STREAM PIPELINE II PROJECT

In 2002, the Blue Stream II Project was first announced and in 2005, Vladimir Putin and Recep Tayyip Erdoğan formally proposed the Blue Stream II Project to extend Blue Stream and to supply natural gas to southeast Europe. The

Blue Stream II Project was a competitor of the Nabucco Project which would deliver natural gas to Europe (Offshore Technology, n.d.).

In 2006, Russian Gazprom planned to build the Blue Stream II Project to export Russian natural gas to Greece, Italy, Republic of Bulgaria, Romania, Hungary, Austria, and Israel through Turkiye. However, due to the emergence of the South Stream project and the competition with the Nabucco Project, the Blue Stream II Project was changed to the second plan. The Blue Stream II Project was planned to be built in parallel with the Blue Stream Pipeline and would expand to Israel (Kemaloğlu, 2009).

In 2007 the discussion regarding Blue Stream II was postponed and the discussion regarding the South Stream project was announced. The South Stream project was planned to replace the Blue Stream II Project, which would supply natural gas to Europe without passing through Ukraine and Turkiye (Offshore Technology, n.d.).

In 2009, Putin came up with a new plan, which was to change the route of the Blue Stream II project which was originally to supply East - West natural gas became to supply North - South natural gas, from Russian Federation through Blue Stream pipeline, extend overland in Turkiye, to the Mediterranean coast (Offshore Technology, n.d.). Blue Stream II project was planned in parallel to the existing Blue Stream pipeline to supply Syria, Lebanon, Israel, and Cyprus (Koutroumpis, 2019, p. 3).

The Blue Stream II Project was also discussed when Abdullah Gül's visit to Russian Federation and during Russian crisis with the EU and Ukraine. In 2009, Abdullah Gül's visit discussed the increasing cooperation in the energy sector. Abdullah Gül and Medvedev’s meeting also discussed the development of underground natural gas storage (Kemaloğlu, 2009).

In January 2010, Prime Minister Recep Tayyip Erdoğan paid a working visit to Russian Federation for joint discussions with Russian Prime Minister Vladimir Putin. The discussions were about South Stream Pipeline, Nabucco Projects, Samsun-Ceyhan Crude Oil Pipeline, and Blue Stream II Project (Tiftikçigil & Yesevi, 2014, p. 62).

The Blue Stream II Project was seen as the key to reaching the Southern European and Middle Eastern markets. Medvedev mentioned the Blue Stream II Pipeline would have a capacity of 8 or 16 billion cubic meters (bcm). When combined with the capacity of the Blue Stream Pipeline, the total would reach 24 - 32 bcm (Cumhuriyet, 2006).

One of the reasons for the planned construction of the Blue Stream II Project was because of the problem with Ukraine as an energy transit country to Europe. The trust of European countries in Gazprom decreased after the conflict between the two countries Russian Federation and Ukraine broke out and had an impact on energy supplies to Europe (Cumhuriyet, 2006).

As the expansion plan from the Blue Stream, Blue Stream II is expected to reach several other regions. The first alternative in 2005 was to send natural gas from the Blue Stream to Republic of Bulgaria, Republic of Serbia, Republic of Croatia, and Hungary. Meanwhile, the second alternative in 2009 was to send natural gas from the Blue Stream to the Middle East such as Israel and its surrounding countries (Kumaş, 2010, p. 35).

In the first alternative, this pipeline was intended to supply natural gas to European countries with a volume of 10 bcm per year. Blue Stream II was also intended to be a competitor to the Nabucco project, which would take natural gas from the Caspian to bring it to Europe. However, the Blue Stream II Project was not realized since Russian Federation chose to use the South Stream Project option (Tosun, 2016, p. 131).

The second alternative, Blue Stream II Project was intended to supply natural gas to Israel and its surrounding countries. The reason the Blue Stream II Project was canceled in the second alternative since Israel found a significant volume of energy sources on it offshore. Apart from that, there were also consequences of the failure of political negotiations between Turkiye and Russian Federation at that time (Cohen G. , 2017, p. 5).

During Russian crisis with the EU and Ukraine, Turkiye also faced a few of energy problems when Iran cut its energy supplies. However, Russian Federation succeeded in increasing its natural gas supply to Turkiye through the Blue Stream,

accordingly Turkiye considered Russian Federation as Turkiye's reliable partner in the energy sector. Turkiye also dared to abandon projects which Russian Federation did not like, such as the Nabucco project. More than that, Turkiye welcomed Blue Stream II Project between Russian Federation and Turkiye (Kemaloğlu, 2009). In a case when Iran failed to meet its natural gas supplies to Turkiye, Gazprom compensated for the shortage of gas deliveries to Turkiye (Gazprom, n.d.).

Turkiye's demand for Russian natural gas through the Blue Stream Pipeline was sufficient enough to meet Turkiye's domestic demand. Therefore, Turkiye's involvement in the Blue Stream II Project was to act as a bridge between the West and the East in the energy sector and ensure that Russian natural gas passes through Turkiye to other countries. Because of that, it would indirectly strengthen Turkiye's position in the region. If the Blue Stream II Project was implemented, Russian Federation would dominate almost all energy networks in Eurasia (Kemaloğlu, 2009).

CHAPTER IV

4. RUSSIAN FEDERATION AND TURKIYE ENERGY COOPERATION IN BALKANS ENERGY SECURITY THROUGH TURKSTREAM PIPELINE

4.1 RUSSIAN FEDERATION AND TURKIYE RELATIONS

Russian Federation and Turkiye have had ups and downs in political and economic relations. During the last few years, the Russian-Turkish political relationship has experienced many political crisss due to their conflicting geopolitical ambitions. One of them is the annexation of Crimea by Russian Federation which made President Erdoğan unhappy, and another issue is the differences in foreign policy between Russian Federation and Turkiye in the civil war in Syria. Turkiye aims to overthrow Syrian President Bashar Assad while Russian Federation provides military, diplomatic and political support to the Syrian President. The political conflict also escalated after the downing of a Russian bomber by a Turkish F-16 in November 2015 (Koutroumpis, 2019).

This conflict triggered a diplomatic crisis between the two countries and Russian Federation imposed economic sanctions on Turkiye. However, in June 2016 President Erdoğan offered an apology to President Putin and restored diplomatic relations between the two countries. Putin also provided political support to Erdoğan and condemned the coup attempt by the Turkish military in July 2016. Although the two countries have been in disagreement for several years, the political conflict between the two countries can be resolved through economic cooperation related to Russian Federation-Turkiye energy interdependence. As a country that imports one-third of its natural gas from Russian Federation, Turkiye is a valuable Russian energy market (Koutroumpis, 2019). Russian Federation - Turkiye relations in energy security is Russian Federation as an energy provider delivers its natural gas energy to southern European countries through Turkiye as a transit country.

Why did Russian Federation choose Turkiye? Russian Federation chose to cooperate with Germany to supply natural gas to northern European countries with the pipeline named the Nord Stream pipeline. Russian Federation established this cooperation in the framework of economic and energy trade. For the Russian gas

market in southern Europe, so far Russian Federation has chosen Ukraine to supply natural gas to southern European countries. However, due to the lack of modernization of the gas pipeline for 20 years and the conflict between Russian Federation and Ukraine over the annexation of Crimea, Russian Federation was looking for alternatives to other countries to supply natural gas to southern Europe, therefore Russian Federation chose Turkiye.

Why did Turkiye choose Russian Federation? The first reason is because of energy security reason. Turkiye has natural gas demand for domestic needs. During 2011 - 2018, Turkiye imported an average of 26,4 bcm of natural gas from Russian Federation. Turkiye consumes an average of 50 bcm of natural gas per year and half of them come from Russian Federation. The second reason is the interest in economic trade. Turkiye is looking for an opportunity between the Russian Federation – Ukraine conflict, accordingly Turkiye offered to become a transit country for Russian natural gas to be delivered to countries in southern Europe. In that way, Turkiye can get economic benefits as a transit country, as well as strengthen its geopolitical position for the countries of southern Europe. Since southern European countries need Turkiye as a transit country to get Russian natural gas.

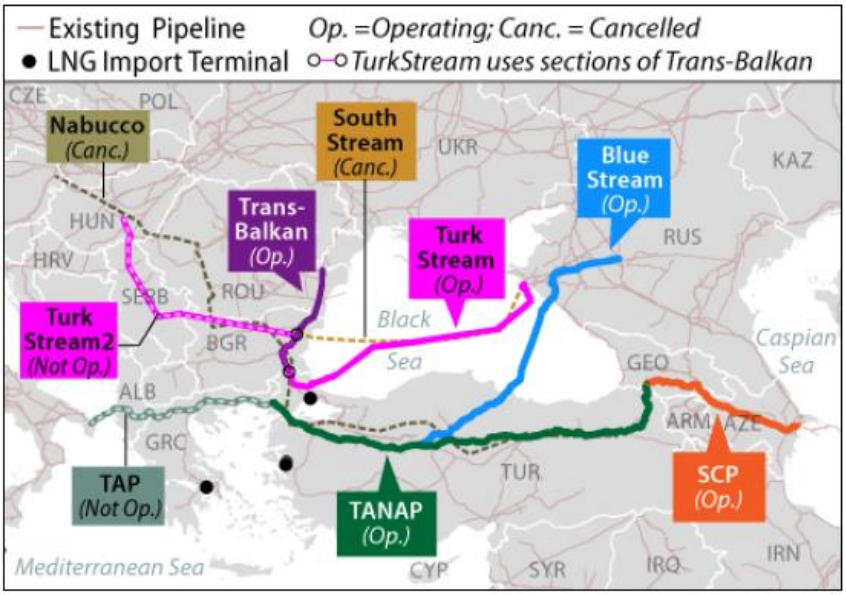
4.2 RUSSIAN FEDERATION AND TURKIYE ENERGY COOPERATION

In terms of energy geopolitics, Turkish existance to Russian Federation is very important since Turkiye is both a consumer and a transporter country. Turkiye's strategic position gives Turkiye access to the Black Sea and makes Turkiye importance increases. In addition, Turkiye's location close to the Middle East and the Caspian Basin makes Turkiye play an active role as an energy bridge for energy source countries and consumer markets. Turkiye is the energy bridge between Central Asia, the Caucasus, and Europe (Koutroumpis, 2019).

Russian Federation as an energy source country delivers its natural gas to markets in European countries. In several pipelines, Russian Federation carries out its natural gas to Europe via Turkiye. Up to 2016, Russian natural gas was delivered to Turkiye via 2 routes (Koutroumpis, 2019). The first is the eastern branch of the

Trans-Balkan pipeline, which delivers natural gas from Russian Federation – Ukraine – Moldova – Romania – Republic of Bulgaria – Turkiye (Temizer, 2017). This pipeline was completed in 1987 during the Soviet period. The second is the Blue Stream, which delivers natural gas from Russian Federation – Black Sea port in Dzughba (beneath the sea) – Samsun on the Turkish Black Sea Coast. This pipeline was completed in 2002.

Figure 4 : Natural gas pipelines in Turkiye and Southeast Europe



Source: Bechev, D. TurkStream: Geopolitical Impact. *EXPERT BRIEF Regional Politics*.

Russian Federation and Turkiye have several natural gas pipelines, both existing and not yet implemented. These gas pipelines deliver natural gas from Russian Federation to Turkiye, as follows:

1. Trans-Balkan Pipeline (Western Line)

   This is the oldest agreement between Russian Federation and Turkiye. This agreement was signed in 1984 between the Soviet Union and Turkiye regarding the supply of natural gas. The Soviet Union and Turkiye signed a 25 year natural gas purchase sale agreement in 1986 and importation of natural gas started in 1987. These natural gas deliveries reached their full

potential of 6 bcm in 1993. The Russian Federation – Turkiye pipeline is 845 km long and enters Turkiye from the Bulgarian border (Koutroumpis, 2019). Lastly, Turkish companies import natural gas from Russian Federation 14 bcm via the Trans-Balkan pipeline (Cohen G. , 2019).

2. The Blue Stream Gas Pipeline

   The second Russian Federation - Turkiye natural gas pipeline is the Blue Stream Pipeline. In 1996, Russian Federation made an offer to Turkiye to supply additional gas via pipeline under the Black Sea. Russian Federation started to deliver natural gas in 2003 with a total pipeline length of 1.213 km. This pipeline delivers natural gas from Russian Federation – Black Sea – Turkiye. Blue Stream pipeline supplies 16 bcm of Russian natural gas to Turkiye (Koutroumpis, 2019).

3. The Blue Stream Gas Pipeline II Project

   In 2005, President Vladimir Putin made an offer Blue Stream II to Turkiye. Blue Stream II pipeline serves to supply Russian natural gas to Turkiye and Middle Eastern countries. The Blue Stream II route is from Russian Federation - Black Sea - Samsun - Ceyhan - Syria - Lebanon - Israel – Cyprus (Koutroumpis, 2019).

4. TurkStream Pipeline

   In 2016, Russian Federation and Turkiye signed an intergovernmental agreement concerning the TurkStream natural gas pipeline. TurkStream pipeline has a capacity of 31,5 bcm per year. Russian Federation supplying 15,75 bcm of natural gas to Turkiye and supplying 15,75 bcm of natural gas to southern European countries. The TurkStream pipeline route delivers natural gas from Russian Federation - Black Sea - Turkiye - the southern European countries. The aim of TurkStream pipeline is to connect the natural gas supply from Russian Federation to Turkiye and Balkans, which has been interrupted temporarily due to Russian Federation – Ukraine conflict (Koutroumpis, 2019).

Of these natural gas pipelines, two pipelines supply Russian natural gas to Turkiye ; the Trans-Balkan pipeline and the Blue Stream pipeline. In 2016, Russian Federation supplied 24,8 bcm to Turkiye with details of 11,7 bcm via the Trans-Balkan pipeline and 13,1 bcm via the Blue Stream pipeline. In 2017, Russian Federation supplied 29 bcm to Turkiye with details of 13,1 bcm via the Trans-Balkan pipeline and 15,9 bcm via the Blue Stream pipeline. In 2018, Russian Federation delivered 24 bcm to Turkiye with details of 10,7 bcm via the Trans-Balkan pipeline and 13,3 bcm via the Blue Stream pipeline (Furuncu, 2020).

The Trans-Balkan pipeline passes through Ukraine and Republic of Bulgaria then ends in Turkiye. But political and economic disputes between Russian Federation and Ukraine over the past years has caused several problems for Russian natural gas for Turkiye. Because Russian natural gas through Trans-Balkan pipeline to Turkiye is cut off occasionally. TurkStream is an alternative solution for Turkiye and the Balkans for Russian uninterrupted supply of natural gas. The previous natural gas delivered via Trans-Balkan pipeline to Turkiye will be delivered via TurkStream pipeline in 2020 (Furuncu, 2020).

In addition to the natural gas pipeline with Russian Federation, there are also canceled natural gas pipelines and existing natural gas pipelines between Turkiye and other countries. The natural gas pipelines were made in order to reduce dependence on Russian natural gas, as follows:

1. The Nabucco Pipeline Project (Canceled)

   Nabucco Pipeline is a canceled natural gas pipeline project from Erzurum Turkiye to Austria to diversify natural gas pipelines to Europe. The goal of the Nabucco pipeline is to reduce European dependence on Russian Federation. The route for the Nabucco gas pipeline is from Baku (Azerbaijan) - Tbilisi (Georgia) - Erzurum (Turkiye) - Republic of Bulgaria - Romania - Hungary - Austria. Then from Austria, natural gas will be delivered to other Europe (Koutroumpis, 2019).

   However in 2009, Russian Federation bought part of Azerbaijan's natural gas, consequently Russian Federation eliminated European hopes for natural gas supplies from Azerbaijan. Apart from that, another potential supplier of natural gas besides Azerbaijan is Turkmenistan. Turkmenistan then decided

to supply natural gas to China not Europe, consequently European countries have no alternative natural gas supplier. Nabucco pipeline was planned to deliver 30 bcm of natural gas to European countries, but other potential supplier of natural gas through the Nabucco pipeline, Iran and Iraq, also have not developed their fields yet. Therefore, there was uncertainty in the supply of natural gas (Koutroumpis, 2019).

EU made a plan to supply Caspian natural gas to the EU with a pipeline network named Southern Gas Corridor (SGC). When a consortium of European energy companies with the support from European Union offered Nabucco project from Azerbaijan natural gas to European Union, Russian Federation responded with the South Stream project with the pipeline position beside the Nabucco project directly. Unlike Nabucco which has to pass Turkiye as a transit country, South Stream directly aimed European Union as Nabucco planned destination point. Russian Federation had to eliminate Nabucco plan with took control of Azerbaijan's natural gas to prevent Azerbaijan's natural gas supply to European Union (Asenov, 2018).

2. The Trans - Anatolian Natural Gas Pipeline (TANAP)

   TANAP is a pipeline that connects natural gas sources in Azerbaijan to Europe via Turkiye. This cooperation also increases Turkiye's geopolitical value to Azerbaijan and European countries for being an energy transit country. The purpose of this pipeline is as an alternative natural gas pipeline to Europe apart from Russian Federation (Koutroumpis, 2019).

   TANAP pipeline construction was inaugurated in 2018 and connected to the Trans-Adriatic Pipeline (TAP) pipeline on the Greece – Turkiye border. TANAP carries out Azerbaijan natural gas to Italy via Azerbaijan – Georgia – Turkiye – Greece – Republic of Albania – Adriatic Sea (Koutroumpis, 2019). TANAP capacity is 16 bcm per year. Of 16 bcm per year, 6 bcm of natural gas is delivered to Turkiye and 10 bcm of natural gas is delivered to European countries (NS Energy, 2019).

   After Nabucco project, the plan for the construction of SGC was further developed with a new project named TANAP in December 2011 when the government of Turkiye and Azerbaijan made a Memorandum of

Understanding (MoU). In September 2012, the TAP (Trans-Adriatic Pipeline) followed directly with the MoU between Republic of Albania, Greece, and Italy. In 2013, these countries signed an agreement and in September 2014 the construction was built.

Russian Federation responded to TANAP quickly in December 2014 by canceling South Stream and made a similar pipeline project with the new route via Turkiye named TurkStream. The purpose why the route passing through Turkiye is to prevent TANAP works further since TANAP also passes through Turkiye, which is to reduce the implementation of TANAP as an alternative natural gas supply to European Union (Asenov, 2018).

4.3 TURKSTREAM PIPELINE

The TurkStream pipeline is considered as a turning point for Russian Federation and Turkiye relations. TurkStream pipeline consists of twin pipes and each of them carrying 15,75 bcm of natural gas for Turkiye, southern and southeastern Europe. The first pipeline supplies natural gas to Turkiye and the second pipeline supplies natural gas to the European market. Totally, TurkStream pipeline carries out 31,5 bcm of natural gas (Furuncu, 2020). TurkStream pipeline construction lies on the base of the Black Sea and connects Russian – Turkish natural gas transmission network (Botaş, 2023).

With TurkStream pipeline, Russian Federation supplies natural gas to Europe through Turkiye for the first time. Previously, Russian Federation supplied natural gas to Turkiye through Trans-Balkan pipeline (West Line). TurkStream pipeline provides natural gas to southeast and southeastern Europe through Turkiye and at the same time provides a new route to European countries. TurkStream pipeline strengthens Turkiye's value in the Balkans' energy security (Furuncu, 2020).

Turkiye is geographically located in the center of Europe, Russian Federation, the Caspian Basin, the Middle East, and the Eastern Mediterranean. This location strengthens Turkiye geopolitically as an energy actor. TurkStream pipeline is not only increasing Turkiye's dependence on Russian Federation but also increasing both countries' interdependence. Turkiye gets natural gas directly from

TurkStream instead of Trans-Balkan pipeline and Balkan countries receive natural gas through TurkStream (Furuncu, 2020).

Initially, Russian Federation supplies natural gas to several European countries through the Trans-Balkan pipeline. The Trans-Balkan has been operating since 1987 and delivers natural gas from Russian Federation - Ukraine - Moldova - Romania - Republic of Bulgaria - Turkiye. However, since the conflict between Russian Federation and Ukraine took place, Russian Federation decided to cut off the flow of natural gas to Ukraine and sought alternative routes to supply Russian natural gas to the European market.

Russian Federation came up with an alternative to build the South Stream pipeline that would supply Russian natural gas to European countries without passing through Ukraine. The route of the South Stream pipeline is as follows Russian Federation - the Black Sea - Republic of Bulgaria - Republic of Serbia - Hungary - Republic of Slovenia - Austria. That way Russian Federation could send natural gas to Europe without going through Ukraine. The South Stream pipeline was widely seen as a replacement for the failed Nabucco pipeline.

South Stream construction began in 2012 but was later canceled by President Putin in 2014 due to the obstacles from European Union, the 2014 Crimean crisis, and EU sanctions against Russian Federation. Russian Federation was looking for other options to deliver natural gas to the European market. On the other hand, Turkiye appeared as an alternative option as a transit country for Russian Federation to supply natural gas to Europe without going through Ukraine.

TurkStream pipeline was started in 2014 when Gazprom as a Russian SoE (State Own Enterprise) and BOTAŞ as a Turkish SoE signed the MoU to build a natural gas pipeline to Turkiye through Black Sea. This MoU continued until 2016 when the Russian and Turkish governments officially signed the agreement on TurkStream project. In 2017, the construction of TurkStream was started in the Black Sea. In 2019, the pipe laying of TurkStream in the Black Sea was completed. In 2020, the TurkStream pipeline started to operate (Gazprom, 2020).

In 2016, the total natural gas demand in Balkan countries was 24,8 bcm. The prediction for 2040 in the term of the total consumption of natural gas in Balkan

countries will reach 30 bcm. The TurkStream will be significantly efficient fulfill Balkan countries' demands. Turkiye does not depend on a single source of energy country, however, Turkiye implements a diversification of the source countries and another pipeline like TANAP. But still, after diversification made by Turkiye, Turkiye still puts Russian Federation as the largest source of natural gas, since Russian Federation fulfills 30% of Turkiye's natural gas imports (Furuncu, 2020).

TurkStream project is very important since it supplies Russian natural gas to Europe through Turkiye for the first time. Russian Federation bypass Ukraine while supplying natural gas to Europe. Russian Federation also plans to extend TurkStream pipeline through Republic of Bulgaria and Republic of Serbia to nearby countries. Russian Federation pressures Republic of Bulgaria to complete the Bulgarian part of the line by the end of 2020. Separately, Republic of Serbia is building another pipeline for the Serbian part to further deliver natural gas to Europe (Furuncu, 2020). Bulgarian part and Serbian part receive natural gas from TurkStream pipeline II (Congressional Research Service, 2020).

Figure 5 : TurkStream Pipeline

Source : Russian Federation Business Today. *Republic of Bulgaria Ties Energy Future to Russian Federation with New Pipeline*. Retrieved 12 6, 2020, from www.russiabusinesstoday.com: https://russiabusinesstoday.com/energy/Republic of Bulgaria-ties-energy-future-to-Russian Federation-with-new-pipeline/

Some countries in the Balkans have their own natural gas production and they will not fully demand natural gas from the pipeline. In 2016, Romania produced 9,9 bcm of natural gas on its own and is expected to become an exporter of natural gas in the Balkans like Russian Federation. Thus, the Trans-Balkan pipeline will no longer be used since natural gas demand in Balkan countries will be met by TurkStream. The natural gas supply to Republic of Bulgaria and Republic of Serbia starts in 2021, to Hungary in 2021, and to Slovakia in 2022 (Furuncu, 2020).

There are different alternatives for the utilization of TurkStream pipeline to Europe. The first alternative is to transfer natural gas to Republic of Serbia via Republic of Bulgaria, the second alternative is to transfer natural gas to Italy through Greece via Trans-Adriatic Pipeline (TAP) and Albania as the extension of TANAP in Europe. But Russian Federation chose the first alternative to transfer natural gas through Republic of Bulgaria and Republic of Serbia (Furuncu, 2020).

The benefits of TurkStream from Turkiye's perspective, Turkiye gets natural gas directly from Russian Federation and there are no transit countries like the Trans-Balkan pipeline. Turkiye pays less for Russian natural gas and does not pay transit fees (Furuncu, 2020). Furthermore, due to its geopolitical location, Turkiye is evolving into the most potentially significant transit country between Europe and Asia, even Russian Federation has to be cautious about the new 'transit risk' since Russian Federation strengthens Turkiye's position as a major transit hub. Apart from Russian Federation, Turkiye also delivers natural gas to Europe from Azerbaijan, and perhaps from Turkmenistan in the future (Asenov, 2018).

For Balkan countries, Republic of Bulgaria and Greece have an opportunity to become the second countries supplying natural gas from TurkStream (Furuncu, 2020). Russian Federation began delivering natural gas to some European markets via TurkStream in January 2020 using the partially completed infrastructure. TurkStream reaches markets in Turkiye, Republic of Bulgaria, Greece, and Republic of North Macedonia (Congressional Research Service, 2020). Natural gas to Republic of Serbia and Hungary is not possible in 2020 as the Bulgarian and Serbian parts are still not connected yet (Bechev, TurkStream: Geopolitical Impact, 2020).

Furthermore, there are other advantages and disadvantages because of TurkStream development, for countries participating in the development of TurkStream construction like Republic of Bulgaria and Republic of Serbia get advantages from the TurkStream pipeline since the routes passing through those countries, while Slovakia needs the extension of the pipeline as the transportation distance since Russian Federation stops the supply of natural gas via Ukraine. Turkiye also gets the advantages since Turkiye benefits from the transit revenue, while Ukraine, Moldova, and Romania loss the transit revenue (Bauomy, 2020).

Some analysts mentioned that TurkStream is counter to the Southern Gas Corridor project by the US that focuses on supplying natural gas from Azerbaijan to Europe to reduce European dependency on Russian natural gas. The Southern Gas Corridor consists of three connecting pipelines as follows: the South Caucasus Pipeline (SCP) in Azerbaijan and Georgia, then the Trans-Anatolian Pipeline (TANAP) passing through Turkiye as a transit country, and the Trans-Adriatic Pipeline (TAP) which extends the pipeline from Greece to Italy through Albania and the Adriatic Sea. All three pipelines have a capacity of 16 bcm per year compared to TurkStream pipeline which is double the capacity from Southern Gas Corridor (Congressional Research Service, 2021, p. 1).

In addition to Southern Gas Corridor, TANAP's first supply of natural gas to Turkiye was in 2018 and TAP's first supply of natural gas was in 2020. Of the 16 bcm contract, TANAP provides 6 bcm for Turkiye while the rest of the 10 bcm is to continue through TAP mostly to Italy, Greece, and Republic of Bulgaria. TurkStream supplies first natural gas in 2020 to Turkiye, Republic of Bulgaria, Greece, and Republic of North Macedonia using partially completed and existing infrastructure. Since then, TurkStream also supplies to Republic of Serbia, Bosnia and Herzegovina, and Romania. TurkStream replaces the role of Trans-Balkan Pipeline as of late 2020 Trans-Balkan Pipeline only operated at less than 5% capacity. However, some analysts view the appearance of TurkStream could deepen European countries' dependence. (Congressional Research Service, 2021, p. 2).

The conflict between Russian Federation – Ukraine created several disruptions to the natural gas supply for European market like what occurred in 2009 when Russian Federation halted supply via Ukraine due to natural gas contract

dispute. TurkStream as an alternative route is seen as a security of supply for natural gas since Turkiye is more reliable as a transit country than Ukraine, given the relations between Russian Federation and Turkiye are different. Turkiye is a NATO (The North Atlantic Treaty Organization) member and a long-standing US ally, furthermore in 2015 – 2016, Turkiye downed a Russian plane near Syrian border making the relations between the two countries deteriorated. However, their ties become closer after Putin showed support for President Erdoğan during the 2016 coup attempt. Although in some issues their positions are opposite like in Syria, Libya, and Ukraine, their cooperation continues in TurkStream pipeline (Congressional Research Service, 2021, p. 2).

4.4 TRANSIT COUNTRIES

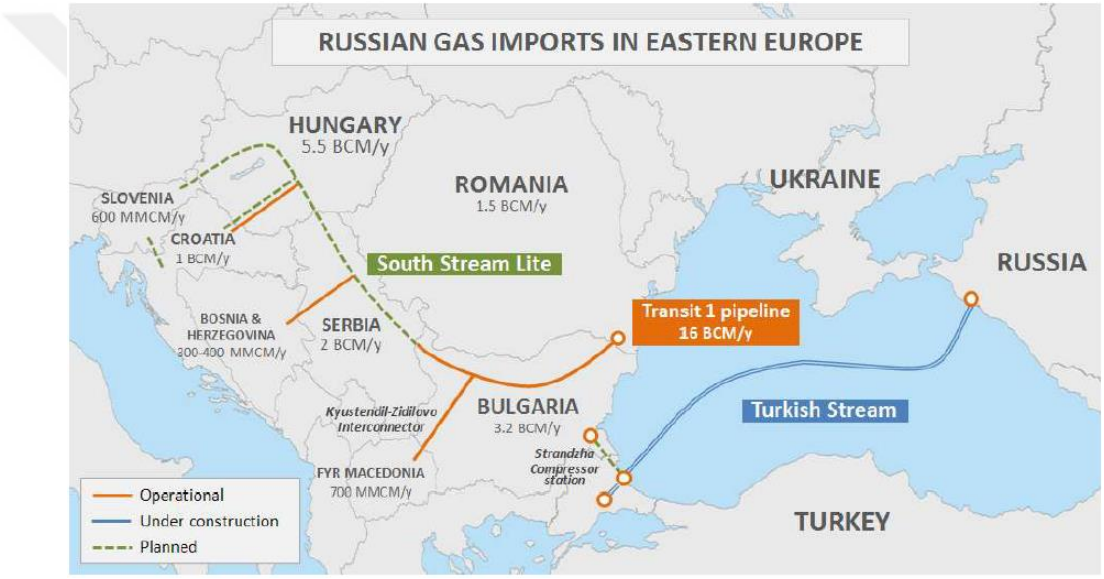
As transit countries, Republic of Bulgaria, Republic of Serbia, and Hungary have more geopolitical value than before when they were not passed by the natural gas pipeline. Previously they were only passed by the Trans-Balkan pipeline. After TurkStream pipeline operates, their geopolitical value increase a lot. The Bulgarian - Republic of Serbia - Hungary route is known as Balkan Stream pipeline and its role is not only to supply natural gas to the Balkans but also to Central European countries (Cohen G. , 2019).

After the TurkStream II and Balkan Stream operate, Republic of Bulgaria, Republic of Serbia, and Hungary are able to deliver 15 bcm of natural gas to the European market. Republic of Bulgaria manages Russian Federation as the only natural gas exporting country to Republic of Bulgaria. The contract between Republic of Bulgaria and Russian Federation is 2,9 bcm of natural gas per year until 2022. In addition, in 2017 Republic of Serbia increased its import of natural gas from Russian Federation from 1,5 bcm to 2 bcm per year. In 2017, Hungary also imported 8,2 bcm of Russian natural gas which increased to 11,26 bcm in 2019 (Cohen G. , 2019).

Balkan countries also received Russian natural gas from Republic of Bulgaria, Republic of Serbia, and Hungary. Republic of North Macedonia imported 0,7 bcm of Russian natural gas via Republic of Bulgaria in 2017. Romania imported

1,5 bcm of Russian natural gas via Ukraine, but it was already connected with Republic of Bulgaria because of TurkStream II. Bosnia Herzegovina imported 0,4 bcm of Russian natural gas via Republic of Serbia. Republic of Croatia imported 1 bcm of Russian natural gas via Hungary. Republic of Slovenia imported 0,6 bcm of Russian natural gas but it was not connected to Hungary or Republic of Croatia. Republic of Bulgaria becomes the main transit country from Turkiye in TurkStream II, followed by Republic of Serbia and Hungary (Cohen G. , 2019).

Figure 6 : Russian Gas Imports in Eastern Europe



Source : Cohen, G. *Natural Gas Import and Export Routes in South East Europe and Turkiye.* Athens: Institute of Energy for SE Europe.

The route for Balkan Stream pipeline as the extension of TurkStream pipeline II is Turkiye - Republic of Bulgaria - Republic of Serbia - Hungary - Austria, then continue to European countries via Austria. Some progress has been made by Republic of Bulgaria and Republic of Serbia in integrating TurkStream II with the Bulgarian part and the Serbian part, as well as the integration between the Serbian part and Hungarian part. However, there has been less progress on the integration of the Hungarian part with the Austrian part. For Russian interests, the energy markets in European countries after Austria are not yet a priority. Since Russian Federation

wants to ensure that Russian Federation is able to deliver its natural gas via TurkStream pipeline as a substitute for the Trans-Balkan pipeline (Cohen G. , 2019).

Other transit countries options besides Turkiye - Republic of Bulgaria - Republic of Serbia - Hungary are Turkiye - Greece - Italy. The Trans-Adriatic Pipeline (TAP) connecting Turkiye - Greece actually intends to connect the TANAP pipeline from Azerbaijan - Turkiye - Greece. However, since TurkStream started to operate, Greece is put on the list of energy transit countries. If TurkStream II delivers natural gas to Balkan countries, Greece will deliver gas through the Adriatic sea to Italy and other European countries. In 2017, Turkiye and Greece ratified an agreement to develop a natural gas transit route. Accordingly, TurkStream has two options, there are TurkStream II and TAP Greece (Cohen G. , 2019).

4.5 TURKSTREAM PIPELINE II

The TurkStream Pipeline plan is not only to reach Turkish consumer, but also in southern and southeastern Europe. The first pipeline supplies Turkish consumers while the second pipeline supplies neighboring countries. As the plan of TurkStream II Pipeline appears to supply natural gas from TurkStream Pipeline to the Balkans and several European countries, Republic of Bulgaria appears as the most powerful candidate as a transit country to transfer natural gas from Turkiye since Republic of Bulgaria has a transfer capacity at the amount of 15,75 bcm per year (Temizler, 2018).

Before that, the operator of TurkStream Pipeline, Gazprom, had 2 options as a transit country, which are between Greece and Republic of Bulgaria. If the main market is Italy then Gazprom would choose Greece while if the main market is Central Europe then Gazprom would choose Republic of Bulgaria. In addition, apart from TurkStream pipeline II, Republic of Bulgaria and Turkiye also launched the Lozenets-Nedyalsko as the new pipeline that reverse-flow between Republic of Bulgaria and Turkiye (Temizler, 2018).

As another chance, Bulgarian government also mentioned another possibility apart from TurkStream II. Prime Minister of Republic of Bulgaria, Boyko Borisov, mentioned new transit infrastructure from Turkish – Bulgarian border to Bulgarian –

Serbian border is a self-standing project named Balkan Stream. Republic of Bulgaria also plans to expand and upgrade its pipeline to enable the transfer of a bigger volume from Turkiye to the Balkans and Central Europe (Bechev, 2020).

However, even Republic of Bulgaria state-owned enterprise, Bulgartrangaz, is an operator of the pipeline in Republic of Bulgaria and East-West pipeline as well, Russian Federation remains getting the biggest advantages since Gazprom has booked almost 90% of the capacity in Republic of Bulgaria for the next 20 years. Consequently, Republic of Bulgaria is investing its infrastructure in Russian interest and the issue of TurkStream II and Balkan Stream pipelines is no longer significant since Russian Federation takes all the benefits. The first pipeline supplies the Turkish market and the second pipeline supplies Balkans and European markets (Bechev, 2020).

TurkStream II pipeline increases the risk of more dependence of European countries on Russian natural gas. The route crosses Republic of Bulgaria and Republic of Serbia making the TurkStream II pipeline potentially becomes a turning point of distribution of natural gas to the European market. As Nord Stream II extending pipeline from German to its neighbours, TurkStream II also extends its pipeline to the European markets. This pipeline is a continuation of the previously canceled South Stream project. Russian Federation considers the extension of TurkStream pipeline to bypass the Ukrainian route (Pares, 2021).

After TurkStream II and Balkan Stream pipelines are completed, it could seriously increase the dependence of Balkan countries on Russian natural gas, even the previous data mentioned the dependence of Balkans on Russian natural gas is already at the level of around 40%. TurkStream pipeline directly supplies 6 countries in Balkans starting from Republic of Bulgaria, Republic of Serbia, Romania, Greece, Bosnia-Herzegovina, and Republic of North Macedonia. This dependence potentially increases since natural gas replaces some energy sources in Balkan countries (Pares, 2021).

In 2022 during the period of Russian Federation – Ukraine war, the Nord Stream pipeline supplying Russian natural gas to German was damaged and the natural gas leak leads the supply of natural gas to German halted at the moment for

maintenance. Due to the damage to Nord Stream, Russian President Vladimir Putin put forward a proposal to reroute the natural gas supply to Europe via Turkiye and the options are Blue Stream and TurkStream pipelines. If the offer is realized, Turkiye will become the largest natural gas hub for Europe in the future (Abbasova, 2022).

4.6 BALKAN STREAM PIPELINE

After TurkStream pipeline operates, Serbian President Aleksandar Vucic mentioned that the Balkan Stream could run through by extending the TurkStream pipeline from Bulgarian and Turkish border. The Balkan Stream is the extension pipeline of the TurkStream pipeline II, allowing Russian Federation to supply natural gas to Central Europe by extending the TurkStream. Republic of Bulgaria and Republic of Serbia are two countries in Balkans which get benefit from the geopolitical value (Telarico, 2021).

From the Serbian's point of view, since the TurkStream pipeline operates and the Trans-Balkan pipeline is no longer used, Republic of Serbia offered to build an extension pipeline from TurkStream and known as Balkan Stream. On the same side, Bulgarian government also mentioned the same point regarding the extension pipeline from TurkStream since Republic of Bulgaria will benefit as a transit country (Telarico, 2021). Republic of Bulgaria and Republic of Serbia get benefits directly since the pipeline passes through their countries.

From the Bulgarian's point of view, Balkan Stream pipeline is an extension pipeline from TurkStream pipeline which runs from Republic of Bulgaria's shouter border with Turkiye to Republic of Bulgaria's western border with Republic of Serbia. Both Republic of Serbia and Republic of Bulgaria put the term of Balkan Stream pipeline as the extension pipeline from TurkStream II. The focus on Bulgarian part is to build the connecting pipeline from Turkish border and Serbian border (Yodranov & Evstaties, 2022).

Figure 7 : Balkan Stream Pipeline

Source : Nuttall, C. (2021, October 21). *Balkan Stream Countries Hope to Avoid Worst of International Gas Crisis*. Retrieved January 9, 2023, from https://intellinews.com/: https://intellinews.com/balkan-stream-countries-hope-to-avoid-worst-of-international-gas-crisis-223382/

The Bulgarian treasury will earn about EUR180 every year in transit fees from 2021 onwards. However, Republic of Bulgaria has to modernize its natural gas network to become a transit country. Besides that, Serbian government mentioned that the Balkan Stream is only the first step for the more ambitious project, since the Balkan Stream has the potential to accommodate LNG, Azerbaijan natural gas, and some local extraction in the Black Sea (Telarico, 2021).

Since Republic of Serbia considers itself as a transit country for Balkan Stream project, Republic of Serbia increases its geopolitical value in the region and has more chance to influence other countries in the region. Even Republic of Serbia considers the Balkan Stream able to make Russian Federation refrain from open hostilities. However, the effect of the Balkan Stream pipeline makes the relations between Russian Federation and Republic of Serbia not friendly in the last few years (Telarico, 2021).

On January 2021, Serbian President Aleksandar Vucic officially announced the opening of its section pipeline (Balkan Stream) as an extension of TurkStream pipeline. Serbian President also mentioned Republic of Serbia buys the delivered natural gas from Balkan Stream at $30 lower per 1000 cubic meters than the previous

price when the natural gas passes through Ukraine in Trans-Balkan pipeline. Totally, Republic of Serbia will receive 13,88 bcm per year of natural gas from the pipeline (Ralev, 2021).

Balkan Stream continues to Hungary and the interconnector pipeline on Serbian and Hungarian border was officially opened on September 2021. Hungary also made a long-term contracts with Russian natural gas like Balkans. Due to Hungary's involvement in Balkan Stream angered Ukraine, since in the previous pipeline – Trans-Balkan pipeline – Russian natural gas must pass through Ukraine first before it goes to Hungary. Ukraine's national gas company, Naftogaz, mentioned Russian Federation uses natural gas as an energy weapon to reduce the Ukrainian role in Hungary (Nuttall, 2021).

Ukraine considers Russian Federation applies pipeline policy as an energy weapon and Ukraine expects the US and the EU will give sanctions on Russian Federation directly. Hungary's long-term natural gas contract with Russian Federation infuriated Ukraine since in the previous pipeline Hungary was dependent on Ukraine and the pipeline passed through Ukraine. Currently, Russian Federation supplies 4,5 bcm annually to Hungarian – Serbian interconnectors via TurkStream and Balkan Stream pipeline. Of 4,5 bcm natural gas, Russian Federation supplies 3,5 bcm to Hungary and 1 bcm to Republic of Croatia, both of them received Russian natural gas from Balkan Stream since 2021 (Nuttall, 2021).

Republic of Bulgaria and Republic of Serbia have been accused due to the Balkan Stream pipeline establishment. The TurkStream makes Russian Federation able to cut off natural gas supply via Ukraine and allows Russian Federation to invade Ukraine without fear of interruption of natural gas. Even Republic of Bulgaria participates in Balkan Stream only to appear as a transit country for neighboring countries. Based on the development of Balkan Stream, Republic of Bulgaria built the pipeline with its state funds, but Republic of Bulgaria never takes the natural gas for domestic demand, and only transits the natural gas to Republic of Serbia. Accordingly, it seems clear that another intention of Republic of Bulgaria is to bypass Ukraine (Koseva, 2022).

Republic of Bulgaria also mentioned that the amount of natural gas passing through Balkan Stream is only to transit in Republic of Bulgaria, then it will be delivered to Republic of Serbia, Greece, and Republic of North Macedonia. Republic of Bulgaria is able to increase its geopolitical value like what Turkiye did, with the facility of the pipelines Republic of Bulgaria has, Republic of Bulgaria is able to receive natural gas not only from Russian Federation, but also from the US, Azerbaijan, Qatar, and Saudi Arabia. Republic of Bulgaria (Koseva, 2022).

Republic of Serbia made a long-term agreement for the natural gas supply with Russian Federation for 10 years. However, another country on the unused Trans-Balkan pipeline which doesn't make a long-term agreement with Russian Federation suffer a lot. Moldova as an example, in which the agreement with Russian Federation has ended, suffers due to the lack of natural gas supply from Russian Federation. Russian Federation temporarily via a new multi-annual contract decides to supply only two-thirds of Moldova's annual imports. To fulfill its demand, Moldova requests natural gas supply from Romania (Nuttall, 2021).

Furthermore, Moldova has to pay six times more than the usual price after the contract with Russian Federation has ended. Moldova's natural gas company, Moldovagaz, is controlled by Gazprom Russian Federation as a major holder. Moldova was forced to cut its natural gas consumption and demanded Romania to supply natural gas. Different from Moldova, Republic of Bulgaria as a part of Balkans, starts to receive natural gas from Azerbaijan via Trans-Adriatic Pipeline (TAP) and runs the pipeline to Greece, Republic of Albania, and Italy (Nuttall, 2021).

4.7 IMPLICATION TO BALKANS ENERGY SECURITY

According to the UNDP (United Nations Development Programs), energy security is the availability of sustainable energy in a variety of forms, in sufficient quantities, and at affordable prices. The definition of energy security differs between developed and developing countries. For Russian Federation, the goal of energy security is to reaffirm the state's control over energy and control the main pipeline and markets to the international market. As for developing countries, their focus on

energy security is on how energy can be obtained and can be reached according to their economic level. Factors of energy security are divided into 3, as follows; availability, reliability, and affordability.

Russian Federation meets these three factors. The first factor, Russian Federation is the world's largest natural gas-producing country with natural gas reserves of 38 tcm and a production of 679 bcm in 2019. The second factor, Russian Federation ensures an alternative natural gas pipeline to the Balkans after Russian Federation plans to close the Trans-Balkan pipeline. Russian Federation previously delivered natural gas to the Balkan countries via the Trans-Balkan pipeline, and Russian Federation is changing natural gas shipments by establishing the TurkStream pipeline. Russian Federation guarantees that the supply of natural gas to the Balkan countries will not be interrupted even though Russian Federation has a conflict with Ukraine. The third factor, Russian Federation provides a lower price of natural gas to transit countries before natural gas reaches the European market. Therefore, the definition of energy security for Russian Federation is how Russian Federation controls natural gas pipelines to supply natural gas to the European market.

On the other hand, Turkiye does not meet the availability factor in energy security. Since Turkiye does not have large reserves of natural gas that can be used as an economic weapon. In 2016, Turkiye's natural gas reserves were only estimated at 177 bcm and it is not an energy-producing country. Accordingly, Turkiye still needs energy imports from other countries. On the other hand, Turkiye meets the factors of reliability and affordability in energy security. Turkiye's role as a bridge country connecting Russian natural gas to the Balkans shows that Turkiye is trusted and relied on by Russian Federation in delivering natural gas to European countries. In addition, even though Turkiye cannot determine the price of natural gas supplied to the Balkans, Turkiye has managed to save on transit fees previously paid by Turkiye to transit countries in the Trans-Balkan pipeline. An estimated amount that Turkiye can save in transit fees to the Trans-Balkan pipeline is up to 500 million USD (Yavuz, 2019). In addition, Turkiye receives monthly transit fees for each cubic meter transferred (Yuksel, 2020).

For Balkan countries, they do not meet the three factors of energy security. Only Republic of Bulgaria and Republic of Serbia meet the factor of reliability since

they are trusted to deliver natural gas to the Balkan countries via Balkan Stream. Romania meets the factor of availability since Romania produces its own natural gas and is less dependent on Russian natural gas. However, the remaining Balkan countries do not meet the factors of availability, reliability, and affordability. So the definition of energy security for Balkan countries is how they can get natural gas to meet their domestic demand. The objective of the Balkan countries is to ensure that the Balkans will continue to get natural gas from Russian Federation to meet their domestic needs.

According to Morgenthau, the concept of national interest is often equated with the efforts of a country in pursuing power, and the importance of power according to Morgenthau is when a country is able to control the actions of other countries. Russian Federation considers energy security as its interest to control the actions of other countries. With the largest natural gas resources in the world, Russian Federation, even still in conflict with Ukraine, is able to cut off its natural gas supply to Ukraine anytime and impacts European countries.

Russian Federation looked for another way to deliver its natural gas to Europe and chose TurkStream pipeline to deliver its natural gas. In delivering natural gas to Europe via TurkStream, Russian Federation is pressuring Republic of Bulgaria and Republic of Serbia to immediately complete Balkan Stream, which supplies natural gas to other Balkan countries. Russian Federation actions affecting Republic of Bulgaria and Republic of Serbia are the part of Russian way of pursuing its national interests.

For Turkiye, Turkiye's national interests in the TurkStream pipeline are; eliminating transit countries in the Trans-Balkan pipeline, therefore Russian Federation supplies natural gas directly to Turkiye, saving 500 million USD in Trans-Balkan transit country fees, receiving transit fees for natural gas through the TurkStream pipeline, increasing Turkiye's geopolitical position in Balkan countries and making the Balkan countries even more dependent on Turkiye.

For Balkan countries, their national interest in energy security is how they can get natural gas without any obstacles. So far, Balkan countries are often constrained by the cut off of natural gas supplies through the Ukraine route several

times due to Russian Federation – Ukraine conflicts. Currently, Balkan countries can rely on Turkiye to get uninterrupted Russian natural gas. With TurkStream, Balkan countries can fulfill natural gas for their domestic demand.

4.8 THE WEST'S RESPONSE

From Turkish point of view, Turkiye is concerns about its pragmatic foreign policy which help Turkiye in pursuing and protecting its national interest since Turkiye is a dependence country for natural gas. However, the West considers Turkiye is shifting away from the West and choosing Russian Federation. Basically, the US also stands on the opposite side of the TurkStream to protect its interest as well. Different from Turkiye, the US interest is about the geopolitical situation for the European market (Özdemir G. S., 2021).

The European market is a significant market and is expected to grow more, since the clash of power between the US and Russian Federation, the West considers TurkStream pipeline as a Russian geopolitical project aiming European market to increase Russian influence by bypassing the Ukrainian border. The West defines the energy dominance in the region as a geopolitical influence of Russian Federation and is expected to keep growing more significantly. The situation leads to the conflict of interest between the West and Russian Federation getting worse. However, from Turkiye's perspective, TurkStream is a pragmatic policy to secure its energy security (Özdemir G. S., 2021).

Russian Federation plan is to eliminate the Ukrainian role as a transit country via Nord Stream to German with its neighbors and TurkStream to Turkiye and TurkStream II to the Balkans. With the operations of TurkStream pipeline, it means Russian Federation and Balkans must rely on Turkiye as a transit country. Realizing the plan and project made by Russian Federation, the US opposed the project with another plan to reduce the Russian natural gas dependency (Pares, 2021).

The US and EU made a plan with a focus on exporting LNG in the region as a competitor of Russian natural gas. The project made by the US and EU is the construction of an LNG terminal in Greece and Republic of Croatia in order to supply LNG in the region. The purpose of the LNG terminal is also to connect the

terminal with Trans-Balkan pipeline that is no longer used since Russian Federation changed the route from Ukraine to Turkiye. The project between Russian Federation and the US with the EU made the geopolitics in the regions increase (Pares, 2021).

The US also applied some sanctions to stop permanently the construction of the natural gas pipeline project with Russian Federation. The US already threatening to give sanctions financially to all companies involved in Nord Stream II. The same threat also applied to Turkiye to stop the construction in the Bulgarian part. The effect of the threats from the US delayed the Balkan Stream development due to the US sanction. From the West perspective, this project threats the security of European and Ukraine as well (Pares, 2021).

The US realizes the effect of Russian new routes via Nord Stream and TurkSream is able to deepen Russian dominance in the European energy market. The Nord Stream and TurkStream supply to the market already reached 140 bcm per year while the amount of Ukraine's transit capacity is 146 bcm per year. The Countering Russian Influence in Europe and Eurasia Act of 2017 (P.L. 115-44, Title II) authorizes sanction on those who support Russian new routes both Nord Stream and TurkStream Pipeline including the investment of at least $1 million or providing goods and services or support (Congressional Research Service, 2021, p. 2).

In addition, the Protecting Europe's Energy Security Act (PEESA) of 2019, as amended in 2020, implements sanctions on foreign persons who the President determines have sold, leased, provided, or facilitated the construction of Nord Stream or TurkStream Pipelines. PEESA also targets those who provide underwriting services for insurance of the construction. The US supports the energy security increase and diversification in Europe. In December 2020, the US via Development Finance Cooperation (DFC) approved the commitment of investment in the amount of $300 million to expand regional connectivity in energy for 12 EU members in Central and Southern Europe including Hungary and Republic of Bulgaria (Congressional Research Service, 2021, p. 2).

Furthermore, On September 26, 2022, the damage to Nord Stream and Nord Stream II becomes public after there was a sabotage of both pipelines. Due to the damage, the supply of Russian natural gas was temporarily halted. On September 30,

2022, Vladimir Putin blamed the US and the UK for the damage to the pipelines since there is no other country benefited from the damage to the Russian natural gas pipelines. Since the accident happened in Nord Stream and Nord Stream II, there is a similar suspicion that could be happened to TurkStream Pipeline (United World International, 2022).

Nord Stream supplies 58,8 bcm and Nord Stream II supplies 55 bcm per year. Blue Stream supplies 16 bcm and TurkStream supplies 31,5 bcm per year. The next suspicion is focused on TurkStream pipeline after the Nord Stream sabotage. Some analysts mentioned if the West wants to weaken Russian Federation, the TurkStream sabotage could possibly happen. The disruption of natural gas supplies to the Balkans via TurkStream may lead to a collapse in the Balkans and huge economic damage to Turkiye as well. Even the previous sabotage is still not clear yet, Russian Federation keeps blaming the West for the pipeline damage, and another possibility may happen to the TurkStream pipeline (United World International, 2022).

The last, sabotage attempt also occurred in the TurkStream pipeline. Russian Federation arrested several people after they tried to blow up the TurkStream pipeline on Russian side. Due to the Russian invasion of Ukraine and their conflict in 2022, Russian President Vladimir Putin accused Ukraine of an attempt to damage TurkStream pipeline. As a follow-up, Vladimir Putin informed Turkish President Recep Tayyip Erdoğan about the attack on TurkStream pipeline. The suspect in the sabotage attempt on TurkStream pipeline also mentioned they were recruited by Ukraine's Security Service to damage the pipeline (Teslova, 2022).

So far, both Nord Stream and TurkStream have been attacked to reduce Russian natural gas supply to Europe, however, with the attacks focused on the natural gas pipelines, it seems there are relations with the European dependence on Russian natural gas and the Russian Federation – Ukraine war (Teslova, 2022). In response to the sabotage attempt on TurkStream pipeline, Hungary's Prime Minister Victor Orban mentioned the attempt to damage TurkStream pipeline is an act of terrorism. Since Hungary also benefit from Balkan Stream pipeline, Hungary considers TurkStream and Balkan Stream pipelines as parts of its energy security and will act accordingly if there is an attack on the pipeline (Yilmaz, 2022).

CONCLUSION

Russian Federation and Turkiye relations, which often disagree on political policies, can always be resolved by economic and energy cooperation between the two countries. As with the TurkStream pipeline cooperation, Russian Federation looked for another country as an alternative for Ukraine to supply natural gas to the European market without going through Ukraine. Turkiye appears as an alternative transit country because of its strategic location as a bridge between energy suppliers and consumers. Russian Federation chooses Turkiye to supply Russian natural gas to the countries of southern and southeastern Europe. Russian Federation possesses the world's largest natural gas reserves which are equivalent to 19% of the world's natural gas reserves. Turkiye and the Balkans import Russian natural gas due to the lack of natural gas reserves in their country. Turkiye imports natural gas from Russian Federation about 30% of Turkiye's domestic demand. Meanwhile, Balkans import natural gas from Russian Federation about 45% of the total Balkans' demand. Both Turkiye and the Balkans depend on Russian natural gas and put Russian Federation as the biggest natural gas supplier.

Russian Federation supplies its natural gas to Turkiye via the Trans-Balkan pipeline and the Blue Stream pipeline. The capacity of the Trans-Balkan pipeline is 14 bcm passing through Ukraine - Moldova - Romania - Republic of Bulgaria - Turkiye. Meanwhile, the capacity of the Blue Stream pipeline is 16 bcm, which passes through the Black Sea to Turkiye directly. The conflict between Russian Federation and Ukraine causes Russian Federation to cut off the supply chain for natural gas to Ukraine while ensuring natural gas can be delivered to European countries without passing through Ukraine. TurkStream was established as a solution with a capacity of 31,5 bcm with details of 15,75 bcm for Turkiye and 15,75 bcm for the Balkans. Then Balkan Stream pipeline passes Republic of Bulgaria – Republic of Serbia – Hungary, accordingly Republic of Bulgaria, Republic of Serbia, and Hungary deliver natural gas to the Balkans and European countries.

Both Russian Federation and Turkiye made cooperation in TurkStream pipeline based on their national interest and energy policy. According to Russian

Federation's perspective, Russia possesses a national interest in sustaining its influence in the post-Soviet. Based on its national interest, Russian Federation defines its energy policies that are implemented in Russian Federation energy strategy up to 2020, 2030, and 2035 in which Russia step by step keeps its dominance in energy markets while ensuring diversification to other markets in Asia. Sustaining the Balkans under the Russian Federation control is a part of maintaining its dominance in the energy market.

According to Turkiye's point of view, Turkiye's interest is to secure the security of supply of natural gas and Turkey defines its energy policy based on its interest. Turkiye's energy policy is implemented on the national energy and mining policy 2019 – 2023 with a focus on securing the security of supply. Since at the moment, Turkiye's production rate meeting consumption is only 0,9%, Turkiye must import natural gas from Russian Federation and others. Based on the demand and energy security, Turkey has to improve the energy security of supply and diversification. However, since Russia also bought some parts of Azerbaijan and Turkmenistan's natural gas, there is nothing left for Turkey to import a sufficient amount apart from Russia. Consequently, Russia remains the biggest supplier of natural gas to Turkey.

According to the Balkans' point of view, Balkans heavily depend on Russian natural gas since there is no other option. Since there is no other country able to supply sufficient natural gas to Balkans, Russian Federation alone supplies 45% of Balkans' natural gas demand. As it is mentioned earlier that Russia bought some parts of Azerbaijan and Turkmenistan's natural gas, so there is nothing left for Balkans, with the result that Balkans rely on Russian natural gas supply. Considering Balkans' natural gas consumption is only at the amount of 24,8 bcm annually which is half of Turkiye alone natural gas consumption, Balkans's natural gas volume demand is very low. Moreover, if it is compared to European natural gas via Nord Stream I and II which reaches 110 bcm annually, Balkans are not a primary importer of Russian natural gas. However, Russian Federation doesn't consider the volume, but considers its dominance in energy markets. Balkans is indeed not a massive natural gas importer, however Balkans's dependency ratio remains vital at the level of 45%.

The outcome of the TurkStream pipeline is that Russian Federation fulfills all factors of energy security and successfully regains European markets through TurkStream pipeline. For Turkiye, Turkiye is securing the security of supply, eliminating energy transit countries on the Ukrainian route, receiving transit country fees from the TurkStream route, increasing Turkiye's geopolitical value in the Balkans, and increasing Russian dependence on Turkiye. For Balkan countries, Republic of Bulgaria and Republic of Serbia appear as transit countries and increase their geopolitical value in the Balkans region due to the route of Russian natural gas through the Balkan Stream, and the Balkans regain Russian natural gas without the disruption that previously occurred through the Ukrainian route.

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CURRICULUM VITAE

Name : Muhammad Ali Husein

Nationality : Indonesia

Education

2020 – 2023 : Master of Arts, International Relations Department, Kocaeli University, Turkiye

2011 – 2016 : Bachelor of Political Science, International Relations Department, Jenderal Soedirman University, Indonesia

Work Experiences

2022 : Senior Account Manager at Tixee, Turkiye

2022 : Senior Account Manager at Lavixo, Turkiye

2021 – 2022 : Guest Relations at Xenovo, Turkiye

2021 – 2022 : Part Time English Teacher at English Time, Turkiye

2016 – 2019 : Expert Staff for Member of Parliament at The House of Representatives of the Republic of Indonesia

2016 : Political Researcher and Consultant at Polstrat, Indonesia

Publications

2022 : Geopolitical Energy Interest of Russia towards Ukraine during Vladimir Putin Government, presented at UDEF 8th Symposium in Kahramanmaraş, Turkiye

2022 : Turkiye's Economic and Cultural Policies after Cold War, presented at UDEF 8th Symposium in Kahramanmaraş, Turkiye

Award

2019 – 2023 : Türkiye Bursları/Türkiye Scholarship

Media Exposures

2015 : Pemuda Indonesia Bicara, discussant at Presiden TV, topic : Youth Leadership, Indonesia

2015 : Apa Kabar Indonesia Pagi, discussant at TV One, topic : One Year Presidency, Indonesia

2015 : Apa Kabar Indonesia Pagi, discussant at TV One, topic : the Hate Speech Prohibition, Indonesia

2015 : SINDO News, writer of 70 Years of Indonesia towards Energy Sovereignty, Indonesia