

Energy security in Albania – towards energy self-sufficiency 2030

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Abstract

The war between Russia and Ukraine has started to have its biggest effects on the most used products by people around the world. The rise in energy prices has been the main headline of this war. In addition to the conventional regional and global security threats due to Russian aggression against Ukraine, the world is facing the unconventional threat of energy security. The energy produced in Russia is used as the main supplier for the economies of many bordering or non-bordering states, turning this product into a lever used by Russia to fuel its war and into a source of conflict among European allies and beyond. In this context, Albania cannot be immune to the skyrocketing energy prices. On the other hand, seeing Albania's favorable situation in diversifying the necessary energy for the daily activities of families and businesses in our country, the government has undertaken the initiative to turn Albania into a net energy exporter until 2030. This means that Albania will no longer be so energy-dependent on fluctuations in prices on global stock exchanges, or dependent on the use of temporary regional initiatives such as "Open Balkans" to secure supply from other countries in the region but will become a country that achieves energy self-sufficiency in the coming decade. This work aims to highlight the threat to national security from the energy crisis and to use quantitative and qualitative data to understand whether this initiative is achievable in the years to come.

Keywords: *energy security, sustainable development, green renewable energy, Western Balkans.*

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Introduction

Energy security is not a new topic in the world. In 1974, the International Energy Agency (IEA) was created. This agency has evolved in its mission since its inception, now including other issues such as energy security, climate change, air pollution, and energy access. Today, IEA represents almost 75% of the global energy market, up from 40% in 2015.

In terms of climate change and its impact, the objective set by the Paris Agreement and sought for implementation by the European Commission, achieving Net Zero by 2050, requires massive investments in renewable energy. By 2030, these global investments are estimated to reach up to \$4 trillion, almost three times more than what is currently being invested. The main new investments that are seen as opportunities to diversify the portfolio of renewable energy production are based on solar and wind energy. In the European Commission's plan, by 2050, 88% of energy will be renewable, up from 29% today, and 70% of this figure will come from solar panels and wind turbines. This will also be achieved through the use of electric cars, with an 18-fold increase in sales from 2020 to 2030, from 3 million to 54 million.

In this context, Albania cannot exempt itself from its obligation to reduce harmful gas emissions into the environment. Therefore, the aim of the study is to answer the question of whether Albania can achieve energy self-sufficiency by 2030, thus becoming an Energy Exporter. In his speech at the 2021 announcement ceremony of wind park auctions, the country's Prime Minister, among other things, said: *“Albania will have one more alternative for energy production by using another source, such as wind. This is an important step towards the horizon of “Albania 2030” and in fulfilling our ambition to make Albania a net exporter of electricity and at the same time an exporter of green renewable energy. The energy sector, our country's return to a net exporter of clean energy in the region, makes “Albania 2030” not only an achievable horizon but also a new perspective horizon for all our children and our children's children.”*

But is it possible for Albania to become a net exporter of electricity? This question will be elaborated in this paper, considering several aspects. First, I will address whether energy is a threat to national security in Albania. Secondly, I will address the different types of energy used by our country and the Western Balkans region and the possibility of achieving self-sufficiency in energy.

Theoretical Model and Methodology

When talking about energy, the first things that come to mind are geopolitics and interdependence among states, which determine the well-being of producer or consumer countries. The theories used are realism, neoliberalism, and constructivism, and the study data come from the world's most prestigious agencies such as the International Energy Agency (IEA), the International Monetary Fund (IMF), the World Bank (WB), as well as from local institutions such as the Institute of Statistics (INSTAT) or the Energy Regulatory Entity (ERE).

Literature review

Liberal theories are based on the belief that strengthening global economic interactions minimizes the opportunities for conflict (Nye 1998). According to them, states are more concerned with absolute gains than relative gains. They analyze their benefits not in relation to other states, but in their total benefit, which promotes cooperation (Nye 1998). Keohane and Nye (1998, p. 83) introduced the concept of “complex interdependence,” a world where security and power are less important, and countries are linked by multiple social and political relationships. The three conditions that favor complex interdependence among states are:

- Increasing communication channels between societies.
- Governments do not intend to use military force; and
- Security is no longer the main issue in international relations.

Liberals argue that the international order is oriented towards the opening of the economy, and the cost-benefit ratio results in the higher cost of wars and leads countries towards economic cooperation, which is clearly more beneficial (Rosecrance 1999, p. 155). However, statistics show the opposite; the number of conflicts has increased since the end of the bipolar system. Neoliberals acknowledge the anarchy in the international system and argue that international institutions will serve to promote cooperation through common rules and norms, thereby minimizing the effects of anarchy (Keohane, 1984).

Neoliberals consider institutions as actors other than states and serve to mitigate the effects of anarchy. Nye (2005, p. 10) claims that “institutions can enhance the soft power of countries,” as they promote the values and political ideas of member countries and those outside these institutions. For example, the EU and the US use institutions such as the European Investment Bank, the International Monetary

Fund, and the World Trade Organization to promote their liberal and democratic values. The belief that “liberal democracies reinforce peace because they do not go to war with each other” has been at the core of neoliberal thinking. Democratic peace is based on three pillars: peaceful conflict resolution among democratic states, a common moral foundation, and cooperation among democracies (Doyle 1983).

According to *realism*, the absence of an international government makes the international system anarchic. States are the central actors in world politics; they are rational actors (Morgenthau, 1973: 10, Waltz, 1979: 95) and the structure of the international system is what guides the behavior of states (Morgenthau 1978; Waltz, 1979). According to realists, power is the key factor in understanding the international system, and the more powerful countries try to maintain the status quo, while weaker ones fight to change it (Carr 1964). According to Morgenthau, one of the elements of state power is the economy and natural resources. The security dilemma (Hobbes) creates an atmosphere of suspicion and potential conflict as a result. States often fail to cooperate, but when they do, this cooperation is dependent on and in function of their interests, and there are no permanent alliances (Morgenthau 1973, p.512). In the anarchic system, states are guided only by their national interests, foreign policy is based on power and security.

Another theoretical perspective is *constructivism*, which has internal politics and cultural identity as its key elements. According to Stoessinger, one of the reasons for escalation or de-escalation is nationalism, which is used by internal politics when they have internal problems or are in electoral campaigns. Often, foreign policy attitudes are based on the personal agendas of leaders. Clausewitz's definition that “War is the continuation of politics by other means, to impose our will on the enemy” clearly shows the connection between internal politics and the attitudes of states in foreign policy. According to Stoessinger, “Misperception” is the most important factor in the onset of war, which can manifest itself in four different ways: in the leader's perception of himself; in the leader's opinion of the character of his opponent; in the leader's opinion of the intentions of his opponent; and finally, in the leader's opinion of the ability and strength of his opponent (Stoessinger p.348). Conflicts are most influenced by leaders who, through their internal politics and their struggle for power, direct political, military, and economic alliances with the world, which for certain reasons at a certain moment lose balance and become the subject of a healthy or unhealthy decision-making by a leader.

According to the social constructivism theorists, the study of political actions requires more analysis than abstract theorizing and advocates for focusing security studies on a series of events that lead to the degradation of the quality of citizens' lives. In this way, social constructivism extends attention beyond armed conflicts,

which are the focus of realism. The expansion and deepening of security issues followed the 90s, and social constructivism contributed to the expansion of the range of threats, not only wars but also issues such as poverty, natural phenomena, and so on, closely related to energy security. This gave the first impetus to the concept of securitization.

Energy security and Securitization

Energy security exists when there are sufficient energy resources to meet the needs of a political community (energy demand), which includes all economic, military, and social activities. These resources must enable the provision of this amount of energy in a safe and stable manner, for a predictable future. When these criteria are not met, there is a problem with (in)security of energy (Raphael, Stokes, 2010, pg. 307). The theories of international relations base the behavior of states on a very interesting element, fear. It is precisely fear that leads to the security dilemma. In this case, the fear of the depletion of potential natural resources is what drives states to constantly search for secure resources. Many states today fail to guarantee their energy security, whether rich or poor in natural resources for energy. According to Raphael and Stokes, energy security converges with other issues of national security, of which economic and environmental security are among the most important.

Buzan has argued that “security” is related to at least five different fields: military, political, economic, social, and environmental. Threats and weaknesses can appear in various fields, military or not, but to be considered security issues, they must meet very clear criteria that distinguish them from mere political developments. They must be threats that endanger the existence of a referent object, by an actor and require emergency regulatory measures beyond normal rules.

Neo-functionalism and Intergovernmentalism

Neo-functionalism (Haas, 1958; Lindberg, 1963) predicts a functional “spillover” between different sectors in all fields, following the logic that integration in a certain policy necessarily leads to the integration of another policy close to it. As a result of this basic paradigm, each country achieves the maximization of its policy at the supranational level. The fundamental idea of neo-functionalism is that integration has an automatic character and is the inevitable result, rather than an intended one of decisions taken to centralize common governance. The main premise of neo-functionalism is the creation of supranational authorities with some independent competences from the member states.

Since the 1960s, intergovernmentalism has represented one of the main general theories that offer a powerful conceptual content of the process of European integration. Theoretically based on realism, and essentially challenging neo-functionalism, classical intergovernmental approach is focused on the vision that states are the main actors in integration in the EU. State sovereignty remains decisive and intergovernmental cooperation should result in sharing, dividing, and delegating, but not fully transferring sovereignty at the supranational level.

Methodology

The paper aims to deepen knowledge on energy security and possibilities of cooperation among countries in the Western Balkans region. A qualitative method has been used, consisting of two components: (1) description and interpretation of the historical geopolitical context of energy in the world and in the Western Balkans region; (2) logical analysis of the elements that shape energy as a national security issue and the real possibilities offered by Albania in the framework of energy towards its aim to become a net exporter by 2030.

Case Study- Western Balkans in relation to the European Union and other actors

This study analyzes the Western Balkan countries: Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro, Serbia, and Albania, also referring to their membership in the Energy Community. The Balkans, despite being composed of small countries, is a complex region with multiculturalism and is influenced by the European Union, NATO, the United States, Russia, and Turkey. It seems that the Western Balkans have included the interests and influence of all major players in the “Great Energy Game” of the 21st century.

The Western Balkans today is a product of the fall of the Iron Curtain after the collapse of communism in Soviet Union and the other countries of the communist bloc. However, the fall of the Iron Curtain and the creation of a new unipolar order were followed by wars and one of the events that shook and permanently changed international expectations for a more peaceful world was the terrorist attacks of September 11, 2001, followed by interventions in Afghanistan and Iraq. Even the Balkans were involved in severe ethnic conflicts following the breakup of Yugoslavia due to extreme nationalism accompanied by massacres and genocide. The breakup of the Soviet Union was also accompanied by severe conflicts during the Orange Revolution, and the conflict with Ukraine continues today. The world was shaken when terrorism and Islamic fundamentalism were accompanied by

the creation of ISIS and Boko Haram, spreading to Syria, Afghanistan, Pakistan, Nigeria, Somalia, Iraq, and the Philippines, and attacking the heart of Europe, Paris. Today's situation does not seem different. The conflict in Ukraine continues to be inflamed.

China's rapprochement with the West, but mostly its economic stagnation, has raised questions about its future positions towards Russia and its demand for oil and gas in general. All these conflicts affect and are affected by energy. Energy is the heart of the economic development of any country. Energy is the source of prosperity and competition, the basis of political controversy and technological innovation, and the cornerstone of an epochal challenge to our global environment (Pascual C, Elkind J. 2013). The global economy is totally dependent on continuous energy, and therefore makes energy an indispensable and influential element of foreign policy of states. Many characteristic elements of energy are immutable due to natural limitations. The variable elements are domestic or geopolitical policies and the ability of humans to maximize the use of natural resources to produce the necessary energy. The level of this correlation is different for different states depending on their power, influence on the world order, etc. Political events have a direct impact on energy security and the geopolitics it produces.

The war in Ukraine has set the US against Russia, while Europe is caught in the chaos created by the fluctuations in the oil and gas markets, rising prices, and the emergent security reactions of EU countries to find alternative sources of fuel. Meanwhile, under the influence of energy, Russia has turned to Asia for new markets and signed an agreement with China.

The global geopolitical situation affects the challenges and opportunities for energy in the region. The recent crisis in Ukraine and the EU's obligation to impose an embargo on Russia alerted EU leaders to the need to diversify gas and oil sources. This increased attention to alternative projects such as the Trans Adriatic Pipeline (TAP) with a source from Azerbaijan, which also includes Albania, giving Albania a valuable opportunity in this regard. Not only has the TAP gas pipeline started operations, but the revitalization of the Vlora thermal power plant by American companies like EXXON and the Skavica hydroelectric project also have added value in efforts to cope with energy supply in the coming months.

The most important actor for BP is the European Union. The influence of the EU is more evident not only because of its geographical location but also because all Balkan countries are at different stages in the integration process. Energy policy has been at the heart of European integration since the beginning, with the Paris Treaty of 1951 creating the European Coal and Steel Community and the 1957 Rome Treaty establishing Euratom. In 1980, energy policy was seen from the perspective of liberalizing the European common market. Since then, liberalizing the internal energy market has been presented as the main solution

to ensure energy security, including supply security. The gas crisis between Russia and Ukraine showed Europe that the traditional economic approach to market liberalization was insufficient to address the energy issue.

The 2005 Energy Community Treaty aims to create an internal market for electricity, oil, and natural gas by bringing Balkan countries together with EU member states. The objectives of the EU's energy security policy consist of creating an internal energy market, improving, and expanding interconnection networks for gas and electricity, investing in new sources/suppliers, and improving the network between member and non-member states of the EU to increase efficiency through technology improvements and protect the environment.

In the past three years, the European Union has approved a series of documents that strengthen Europe's presence in international energy policies, including the EU Energy 2020, the *Towards a Clean Growth Future 2030 Strategy*, a communication on climate diplomacy, and an *Energy Roadmap 2050* outlining scenarios for the coming decades. In January 2014, the European Commission proposed guidelines for the energy sector until 2030. The latest update on energy security is the "European Strategy for Energy Security," which specifically addresses the EU's response to Russia's actions in Ukraine.

This influence on levels of cooperation has been enriched with particular attention that BP took from the 'Berlin Process', initiated by German Chancellor Angela Merkel, which will also be the form through which the integration pace of the Western Balkans will be maintained. Germany has taken a special interest in the region, as the Western Balkans are a crucial element in the EU's energy security dilemma, given their location as a special intersection between the Caucasus and Europe, bordering the Middle East and North Africa.

Additionally, the Western Balkans have three NATO member states and have been under the continuous influence of the United States, both as a NATO member and as a global hegemony, overseeing stability and ethnic conflict resolution in the region after the fall of communism. When discussing energy, it is impossible to avoid Russia's involvement, especially in relation to BP, due to the old geopolitical, economic, religious, and ideological links with former Yugoslavia and Albania. While Albania took a clear path towards Euro-Atlantic integration after communism's fall, Serbia focused on maintaining its supremacy in the region and a strong affiliation with Russia. Serbia has strong ties with Russia, the largest gas supplier to Europe, with specific agreements on interconnection networks and complete gas supply from Russia. However, Serbia's attention has recently turned more towards the EU, perhaps due to economic difficulties and Russia's decreased attention to Serbia with concrete projects, including the cancellation of the South Stream. Nonetheless, their relationship remains strong. Gazprom and Lukoil are also present in the gas industry of Bosnia and Herzegovina, Montenegro, and

Macedonia. The United States seems concerned about Russia's increasing presence in BP, especially in the new conflictual situation created between NATO member countries and Russia.

In the context of constructivist approach, in his millennium speech Putin said: "Russia is and will remain a great power. It is predetermined by the inextricable characteristics of its geopolitical, economic, and cultural existence." This Russian identity has been and remains the main reason for Russia's behavior in the international arena (Sukhov, 2008).

On the other hand, Turkey is the economic power of the region that is interested in stability and cooperation with the EU, even in the conditions of a conflict with Russia and clashes of interests in the Middle East. Turkey is also a key factor for the energy security of the EU due to its geographic location but also as a NATO member. Precisely through the TAP project, the Balkans will access Caspian gas and create new opportunities to connect with the largest oil and gas sources in the Middle East, a necessary guarantee for the EU and BP to reduce dependence on Russian gas and oil. In the political context, both Turkey and Russia have their affiliations in the Balkans, mainly with Muslim-majority countries, but very little is concretized in specific projects.

The collapse of the bipolar system put an end to Yugoslavia and communism in Europe and placed the Balkans in a new political situation with visible social, ethnic, cultural, and economic differences that led to a situation of instability in the region. The energy system, as seen below, has differences and commonalities, but the wars in the region that followed caused damage to the system. The entire region still faces challenges of economic development, fragile democracies, high levels of unemployment, and corruption, despite the progress and new undeniable realities such as Kosovo's independence. Ethnic tensions are still present and constitute a security issue for which the Balkan countries and the EU must truly engage to prevent it from degrading into conflicts.

Analysis

Energy sources, production, and consumption

The markets of the BP region are diverse in terms of size, level of economic development, and financial potential. The total population is 18 million inhabitants (3.5% of the EU population), and the Gross Domestic Product (GDP) for the entire region is \$131 billion, about 1% of the EU's GDP. The economic situation in the region reflects the global crisis, which has led to a decrease in the GDP growth rate, averaging 1.3%, accompanied by characteristics of informality, high unemployment levels, and trade deficits.

The energy market is characterized by small national markets, with common but also unique characteristics, with limited potential to attract significant investments. According to an integrated IEA study on the Western Balkan countries, the region's energy system has a common infrastructure built around the 1960s and 1970s, outdated technology, which requires considerable maintenance, especially after damages suffered during wars and the transition. This applies to the thermal power plants of the former Yugoslavia countries as well as to the hydroelectric power plants of Albania. The situation has improved with new investments in transmission networks and dispatch centers. Another common element is low efficiency, which is mainly caused by losses in the transmission network, and especially in the distribution network due to theft, depreciation, and non-payment of energy. The entire region has a high dependency on imported hydrocarbons. There are elements of interdependence between the BP countries, especially during peak periods, such as the import of energy from the dispatch center of Serbia to Albania or the supply of Serbia's oil refineries from Croatia's pipeline network.

Energy sources are the crucial element in the difference between the region's countries, which can be considered an opportunity if the BP market can integrate and collaborate as one, strengthening one of the energy security indicators, energy mix. However, despite this, the entire region has high dependence on imports. According to IEA data, Serbia appears to have a balanced portfolio of energy sources, while other countries are mainly dominated by two types of resources (coal and hydroenergy).

Albania's most important source of electricity production comes from hydropower, which is insufficient during peak periods, resulting in the country importing almost half of its electricity needs, or around 2538 GWh. Although coal is the main supplier of energy production, accounting for 69%, it decreases significantly when it comes to consumption, with only 8%. The dependency on gas imports is evident in the low domestic consumption rate of 7%, given the lack of gasification and the low regional production rate of only 2%. In 2021, according to the latest report from ERE, public hydropower plants produced 5.344 GWh of energy compared to 3.090 GWh in 2020, marking a 72.9% increase in production. Private and concessionary hydropower plants produced 3.578 GWh compared to 2.191 GWh the previous year, representing a 63.3% increase in production. The exchange of electricity (the difference between gross exports and imports of energy) in 2021 reached a positive value of 548 GWh, compared to a negative value of 2.276 GWh in 2020. Therefore, it can be said that domestic electricity production reached a value of 8.963 GWh, up from 5.313 GWh in 2020, marking a total production increase of 68.7%. The electricity production mix for 2021 was 59.6% from public hydropower plants, 39.9% from private ones, and 0.5% from solar panels.

Other countries in the region, such as North Macedonia and Kosovo, face a similar energy mix shortage. The main source for the region is coal, with thermal power plants mainly located in all former Yugoslavian countries, accounting for about 70% of the resources used for energy production. Meanwhile, in terms of the energy mix used, electricity and oil by-products are the main components, mainly used for transportation. One noticeable aspect when analyzing energy use is that households or families are the largest users of energy, mainly electrical energy. On the other hand, hydrocarbons that consist of the use of oil by-products are primarily used by transportation. The low level of industrialization in the region is also shown in the percentage of energy consumption by industry, as well as the level of usage by commerce and services, which is almost 30% of energy expenditure for industry.

Serbia, which has the largest installed capacity for energy generation (7.1 GW), mainly relies on coal-fired power plants (TPP). The efficiency of these plants is low and constitutes an important environmental impact issue. For all former Yugoslavian countries, thermal power plants are the main installed capacity, except for Serbia, which also has a refinery, cogeneration plant, and central heating systems. Kosovo is also entirely dependent on the thermal power plants – built in the time of former Yugoslavia - for its energy needs.

The production of oil and gas is limited and mainly produced in Serbia, as well as crude oil and a very small amount of gas in Albania. Serbia is connected to the gas network supplied by Russia, which is owned by the Serbian state and Gazprom. Meanwhile, Albania, along with Montenegro and Kosovo, are the only countries in the EU that are not gasified. Domestic production is minimal and mainly used by the industry itself. In addition to crude oil production in the country, Albania has built two LPG ports, in Vlora and Porto Romano, which are the main suppliers from the sea for the region. Montenegro appears to have some potential for offshore gas and oil extraction. B&H, Macedonia are part of the gasification system of former Yugoslavia and their demands are fully met by imports. Even for fuels, these 4 countries are almost entirely dependent on imports (except for B&H) for oil and gasoline used mainly in transport. A particular feature of the region is the use of wood for heating. In non-gasified countries, heating, besides wood, is mainly done with electricity.

Electricity Market and Transmission in Albania

The beginning of the 1990s, following major political changes in the region, placed the countries in a great challenge, with increasing demand for energy and opening up of the market. Albania was the only country that did not have even one interconnection line linking it to the transmission system of EU countries. While Yugoslavia, until 1992, was connected to the European Union through the UCTE - Union for Co-ordination of Transmission of Electricity (Union for the

Coordination of Transmission of Electricity), the network of Western Europe. The electric power infrastructure in Serbia, Kosovo, and B&H, was relatively outdated and was further damaged during the wars in the 1990s, and in 1992 the network was divided. In the west, Croatia and B&H (southwestern part) remained connected to the UCTE Zone 1. Republika Srpska (northeastern part), Serbia, and Macedonia, along with Bulgaria, Romania, and Greece, created the second line of the UCTE Zone 2, Southeastern Europe.

Albania was the only country not connected to the EU until it received special attention for the construction of several 400 kV interconnection lines. The great interest of the Energy Community and the financial support of banks such as the KfW Development Bank and EBRD (European Bank for Reconstruction and Development), have improved the transmission network in the region and finally connected Albania to the EU network through 400 kV lines.

Diversification of transmission means is the second element of energy security after mixed energy sources. In Albania, OST is responsible for this type of security, which performs the functions of Transmission System Operator, Dispatch System Operator, and Market Operator. OST guarantees the necessary transmission capacities for: (i) uninterrupted supply of electricity to distribution system substations and consumers directly connected to the transmission network, (ii) transmission of electricity generated from domestic sources, (iii) as well as for transit and necessary exchanges with neighboring countries. (ERE Report 2020) The above lines also include interconnection lines with neighboring countries.

The most important projects for Albania, which will give a new impetus to the transmission system mainly supported by KfW, are: Rehabilitation and modernization of the control, protection and monitoring system, as well as replacement of primary equipment of substations in V. Deja, Fierza, and Koman. The interconnection line will strengthen and connect these two systems with the regional network, help balance the energy market of the two countries, and reduce hydrological risk in Albania. Also, the electricity market between the two countries and the region can develop without limitations from the transmission network.

Albania's dependence on Serbia for electricity mainly consists of the regional transmission and dispatch network. Albania mostly imports from Bulgaria, and so far has applied for energy imports through the dispatch center located in Serbia, which often allows import permission during peak periods for Albania through tenfold transmission tax rates. In this context, with the help of the Energy Community, work began on November 27, 2014 - the regional interconnector capacity aggregation center located in Podgorica, the SEE-CAO Regional Coordination Center for Auctions - where all transmission capacities are auctioned to harmonize the common market being discussed. It is worth noting that the shareholders of this company are the Transmission Operators of Turkey, Croatia, Albania, Kosovo, Montenegro, Greece, and Bosnia and Herzegovina.

From this context, we understand that not only the transmission infrastructure but also market regulation remains a challenge for its unification and the real possibility of cooperation among the countries of the region. The construction of an open and competitive regional energy market based on the principles of non-discrimination is an objective for the entire region. Since the start of the Athens process, the objective has been to reform the market regulation aspect and create appropriate policies in support of the *acquis* coming from the Energy Community.

Part of the distribution system is also OSHEE, which is the energy distribution system. The reported total losses by the Company for 2020 amounted to 12.8%. The new law on electricity, which entered into force in April 2015, contains the provisions of Directive 2009/72/EC and addresses the liberalization of the electricity market. ERE - Energy Regulatory Entity is responsible for regulating the electricity industry, setting electricity tariffs and prices. According to the report of the EC, the electricity market in Albania is still over-regulated. The wholesale market is dominated by state-owned companies such as KESH. KESH is obliged, based on the contract with OST, to provide as much energy as needed by the population, either through direct generation or import, and of course in cases of overproduction, it can also export. Meanwhile, the retail and distribution sales are operated by two other licenses held by OSHE. OSHE offers energy of all kinds to customers at prices regulated by ERE.

Oil and Gas

When it comes to energy security, gas and oil come to mind for their characteristics. First, both of these energy sources are unpredictable and closely tied to geopolitics due to the concentration of non-renewable resources. 80% of the world's oil is concentrated in nine countries (5% of the population), and 80% of gas is in thirteen countries. According to the latest IEA report, the largest source of energy worldwide for 2020 came from hydrocarbons, with 81.7% coming from oil, gas, and coal. The BP region has a strategic position between natural resource-rich areas such as the Caspian, the Middle East, and the largest consumers, the developed countries of Central and Western Europe. This puts the Balkans on the map of energy geopolitics, a quality that has not been sufficiently exploited until now. The recent crisis in Ukraine has emphasized even more the importance of the BP region and particularly Albania in diversifying energy sources for Europe.

Despite changes in consumption and resources, developed countries and mainly Europe still have a very high dependence on imported oil and gas, of which 27% comes from Russia, or a bill of \$1 billion per day that goes directly to the aggressor in the conflict, Russia. In the short term, it is impossible to replace Russia's gas with other sources. The distribution network carries a significant security importance, as demonstrated once again by the conflict in Ukraine. It should be noted that

not only Europe is seeking to diversify its sources, but Russia is also seeking new markets, turning to Asia with the already signed agreement with China.

Currently, Europe is diversifying its sources through several new supply corridors for gas and oil. One of the most important corridors that affects Albania, and the region is the Southeastern Corridor of gas supply - which in the medium term will play an important role not only in supplying gas from the Caspian region but also a new itinerary for gas from the Middle East. Part of this corridor is also the TAP - Trans Adriatic Pipeline which will be discussed below. Another new approach in Europe are the opportunities for new LNG ports and respective facilities.

The price of natural gas is specific and linked to the source of supply and specific end-user usage. Traditionally, gas has been traded through long-term contracts, unlike oil products which are traded in a competitive international market. This is due to the structure of the gas supply network, as transportation methods are limited to fixed pipelines, which require significant investment. The oil supply network includes exploration and production, transportation through pipelines, railways, or ships. Refining of oil products, storage, and distribution of products in oil pipelines, railways, road transport, or ships. The oil market is considered an open market where products move easily, despite some technical, logistical, and sometimes legal constraints that can be overcome. The oil sector differs from other energy sectors in terms of storage/depositing, transmission, and distribution, as oil and its by-products can be transmitted more easily and cheaply than gas and electricity. Due to the different transportation possibilities in relation to the gas market, the oil market is not regulated by any specific law in the EU, regarding access by third parties for transport and distribution.

Regarding BP, primary energy sources are limited. Albania and Serbia produce small amounts of oil which are insufficient to meet demand, and gas production is negligible. The whole region is characterized by a very high dependence on imports for oil and gas, up to 90%. The demand for oil is always increasing in BP countries and despite production and efforts to find resources locally, crude oil is mainly exported and oil by-products for use are imported. The maritime borders of Albania and Montenegro also represent an advantage for the region, as they allow for diversification of supply networks through the construction of LPG ports. Meanwhile, Albania and Montenegro have three port terminals for oil supply: Petrolifera in Vlore, Porto Romano, and the port of Bar in Montenegro.

As for the crude oil network, there are several oil pipeline projects that BP traverses, such as SEE Southeast Europe, which are built to bring crude oil from Russia or the Caspian region. The existing oil pipelines are only two, Adria which starts on the coast of Croatia to supply further Serbia, B&H, and other countries in Southeast Europe. Supply to the port of Croatia is done through tankers from mainly African and Middle Eastern sources, with a capacity of 20 Mt/Y. The second

is the Thessaloniki-Skopje oil pipeline, which connects the port of Thessaloniki to the Skopje refinery. Albania is the largest exporter of crude oil in the Energy Community (EC). Bankers Petroleum is the largest investor in Albania, which has achieved a new level of production of 2050 tons per day for 2020. Royal Dutch Shell continues exploration in five blocks with potential reserves in the Shpiragut area. The state-owned company Albpetrol is active and operates in the production and trade of crude oil. One of Albania's challenges in the oil sector is to create a stockholding system (storage) related to the quantity specified by the legislation in force for emergency situations. Another major challenge for Albania is to exploit the potential of gas through the TAP project to extend gas pipelines throughout Albania and not only.

The most important projects involving the region regarding gas are the Southern Gas Corridor (SGC), planned infrastructure projects aimed at improving energy supply security and diversity for the EU by transporting gas from the Caspian region to Europe. The Trans-Adriatic Pipeline (TAP) project is part of the gas transmission system produced by the Shah Deniz 2 (SD 2) settlement in Azerbaijan towards the European gas market. Transportation through Azerbaijan and Georgia will be carried out through the South Caucasian Pipeline, while transportation through Turkey will be carried out through the TANAP pipeline to the Turkish-Greek border. Further transportation will be carried out through the Trans Adriatic Pipeline.

Albania is also involved in regional gas system connection projects, which have received a concrete assessment from the Energy Community Treaty structures, as well as from Brussels, such as the Gas Ring Project of the Energy Community, which is expected to connect almost all Western Balkan countries. Also, Albania is part of the Ionian-Adriatic Gas Pipeline project (IAP), a project that will connect the countries of the region such as Croatia, Montenegro, and Albania. Another project for regional gas pipeline connections is the project to build a Liquefied Natural Gas Terminal on the coast of the Fier region and connect it to the Italian gas network (and the European network) with a subsea pipeline in Albania – Italy.

Opportunities and Challenges of the Common Energy Market

The Treaty establishing the Energy Community (EC) was signed in October 2005 in Athens and entered into force on July 1, 2006. The Western Balkan countries were offered the following opportunities:

- a) integration of their outdated and poorly managed system with the common market of the European Union.

- b) standardization of the energy market, creating a regulatory framework and helping the market attract investment for a sustainable and continuous supply of energy.
- c) sustainable and continuous energy supply.
- d) unification and cooperation, leading to an improvement in customer service, promoting research and development for new energy alternatives.
- e) increased influence in line with the national interests of the EU countries.
- f) environmental improvement.
- g) closer relations between the Western Balkans and the European Union.
- h) benefitting from European investments to diversify energy resources.

For political and technical reasons, the challenges and issues faced by the Western Balkans relate to: increasing and diversifying energy sources, integrating the energy network with the European transmission network, high levels of gas and oil imports, high levels of losses in the network, theft and non-payment in the distribution system, inefficient technology, dependence on unpredictable resources such as coal, use of electricity for heating, the environment and climate change, lack of transparency and corruption.

The Energy Community Treaty is not a challenge, on the contrary, the criteria and directives of the Energy Community are more binding and advanced. What is noticeable is the non-signing of this treaty by Serbia and Montenegro in line with Russia's foreign policy, which brings attention to a challenge that the Balkans still face. Although the idea of the South Stream is no longer valid, it continues to show Russia's attention and interests in the Balkans, Serbia, and the region in general.

Conclusions

The Balkans of the 1990s was characterized by continuous ethnic wars in former Yugoslavia, extremist nationalism, ruined economies, and newly born vulnerable democracies. Today, it seems that the years have faded this conflict situation, and states rush to defend their interests, with domestic policies mostly dominating decision-making. Serbia de jure has still not recognized the independence of Kosovo, even though de facto, through common acts under the assistance of the EU, it has accepted the final separation of Kosovo from Serbia and its independence. The tense situations in the Balkans are still present and escalate from time to time, and likewise, Europe and the world seem on the verge of a new cold war. An existential crisis has threatened Europe after the conflict in Ukraine, and dynamics in the Middle East have brought back to attention the old conflicts between the US and Russia. At the center of the discussion, the cost of oil is being played as a tool or a cause.

European integration is the point that unites the Western Balkan countries. To achieve this goal, these countries face major challenges in implementing a series of institutional, political, economic, and legal reforms. One of them is the creation of a common energy market. The conflict in the conditions of energy interdependence, due to its characteristics and impact on modern society, minimizes the chances of a possible new conflict in the Balkans.

In response to the research question about achieving self-sufficiency in Albania's electricity supply until 2030, we can say that if all the announced energy projects such as the Skavica hydropower plant (210 MW), the Karavasta photovoltaic park (140 MW), the Spitalla photovoltaic park (70 MW), the two US ships that will anchor in Vlora's Triport (114 MW), wind parks that start operating in 2023 (100-150 MW), and many other renewable energy projects of smaller capacities spread throughout Albania are realized, it is possible for Albania to be self-sufficient in electricity until 2030. To achieve energy security in a technical context, Balkan countries need to cooperate. They are democratic countries with Euro-Atlantic aspirations and are interacting to create sectoral cooperation that can lead to further value and coexistence cooperation according to the spillover theory.

Despite the diversity in the foreign policy agenda, all governments are striving for the creation of a common market, as they have realized that this is the way for each state to increase its specific value in the international energy market, through the opportunities to connect to the EU electricity network and the major TAP project for gas, thus maximizing the competitive advantage of the geographic position and minimizing the disadvantage of being small markets and lack of investment, etc. Similarly, the opportunity to create a free market leads to increased competition and competition produces development, which gives a new impetus to countries in this challenging system. However, the market cannot be the only regulator for a good like energy, due to its characteristics and the effect that policy has on it, whether geopolitics or domestic policy.

Balkan leaders need to understand that economic development and energy security can only be achieved through political willingness to cooperate. Energy is often an essential commodity for the existence of a state that directs policy, but leaders need to direct the vision for sustainable development, for which energy security is a crucial element. Opportunities exist, and human thought and will are needed.

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