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**Energy Co-operation in the Western Balkans 6 and the
European Union: what lies ahead?**

by

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Abstract

Inclusion, synchronization, the creation of a unified market, and supplier diversification are all components of the European Union's approach to the area of Western Balkans under the term of energy community. For South Eastern Europe's economy to grow and remain stable, the supply and demand for energy must be better balanced. This calls for a strong commitment from the region's nations to market-oriented reforms in order to: increase overall energy efficiency and conservation, lower production's excessively high energy intensity in comparison to global standards, strengthen national institutional capacities, and align legal and regulatory frameworks with EU standards. The current study focuses on the “sensitive” region of Western Balkan, attempting to impose a holistic approach in the need of co-operation between WB6 and EU. The results demonstrate that in an ever-changing world strategies cannot remain stable. Thus, the above co-operation has not only to be strong, but also to be continuous and adaptable, so as to close the gap and improve the energy profile of the region as a whole.

Keywords: Western Balkans, energy, energy security, sustainability

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Abbreviations

E.B.R.D...... European Bank of Reconstruction and Development

E.G.D.I.P......E.G.D. Investment Plant

E.I.B......European Investment Bank

E.I.T......European Institute of Innovation and Technology

E.U......European Union

S.A.A.s......Stabilization and Association Agreements

W.B......Western Balkans

Chapter 1: Introduction

Energy had always been a matter of utmost concern in the modern world, due to its major impact on every aspect of social and economic activity. Yet, during the last decades, energy issues gain an ever-increasing attention, as environmental problems become urgent. Only a few years ago, the world community was almost unaware of sustainability and sustainable development. Thus, the greedy consumption of energy sources inevitably led us to a dead end. Strict energy policies had to be introduced so as not only to guarantee energy security, but also to ensure environmental protection. The EU set to become a pioneer in the current field, implementing a wide range of strategies.

Nevertheless, not all European countries have the ability to effectively adopt these strategies, while recent developments in Northeastern Europe with the Russian invasion in Ukraine change the dynamics. Western Balkans is without a doubt one of the most affected regions, while already being characterized by inequalities comparing to EU, posing a threat for the community as a whole.

Under these circumstances, co-operation both among the Western Balkan (WB) nations and between WB and EU emerges as a main priority. The current study focuses on WB6 energy community conducting a thorough analysis. Besides, we should keep in mind that energy is strongly related with almost every aspect of social and economic activity.

1.1 Objective and research questions

The main goal of the study is to provide a “map” for the future of WB6 cooperation, taking into account the ever changing environment. The future strategies ought to track the recent geopolitical and economic changes and adapt to them so as to achieve sustainability, energy transition and security. The research questions are formed as following:

- a) Why energy cooperation between WB6 and EU is important?
- b) What are the joint targets of the EU-WB6 energy alliance?

- c) How this energy partnership is developed?
- d) What is the role of European energy institutions and how do they support the EU-WB6 energy partnership?

1.2 Methodology- Theoretical framework

The resources used for this research are derived from scientific articles and literature reviews. The methodology that we used in order to analyze our study area was information of literature review, relative paper works, scientific articles and official data from each country related also to the theories that we refer above.

1.3 Scope of the research

A secondary data analysis methodology is adopted as the goals impose a holistic approach, in order to outline the current situation and investigate the future trends on the current field.

1.4 Structure of Thesis

The rest of the study is structured as follows. Chapter 2 introduces us to the main concepts of EU partnership on energy from the scope of WB6. A robust theoretical background is given so as to guarantee a thorough review of the related literature. Then, in Chapter 3 the research methodology is developed. Chapters 4 and 5 compose the practical part of the current study. Particularly, Chapter 4 is focused on WB6 countries' energy profiles and based on this analysis a strategic plan for the future is introduced in Chapter 5. The results of the study are discussed in Chapter 6.

Chapter 2: WB6 and EU Partnership on Energy

As is has already been mentioned above, the second chapter investigates the different dimensions of EU partnership on energy so as firstly to assess the current state and then evaluate the further development on the current field.

2.1 European Green Deal

On December 11, 2019, the new President of the European Commission, Ursula Von de Laien announced the EU's six political priorities for the period 2019 – 2024, including the European Green Deal, which aspires to Europe to a climate neutral continent by 2050. The various elements of the Green Deal are given below.

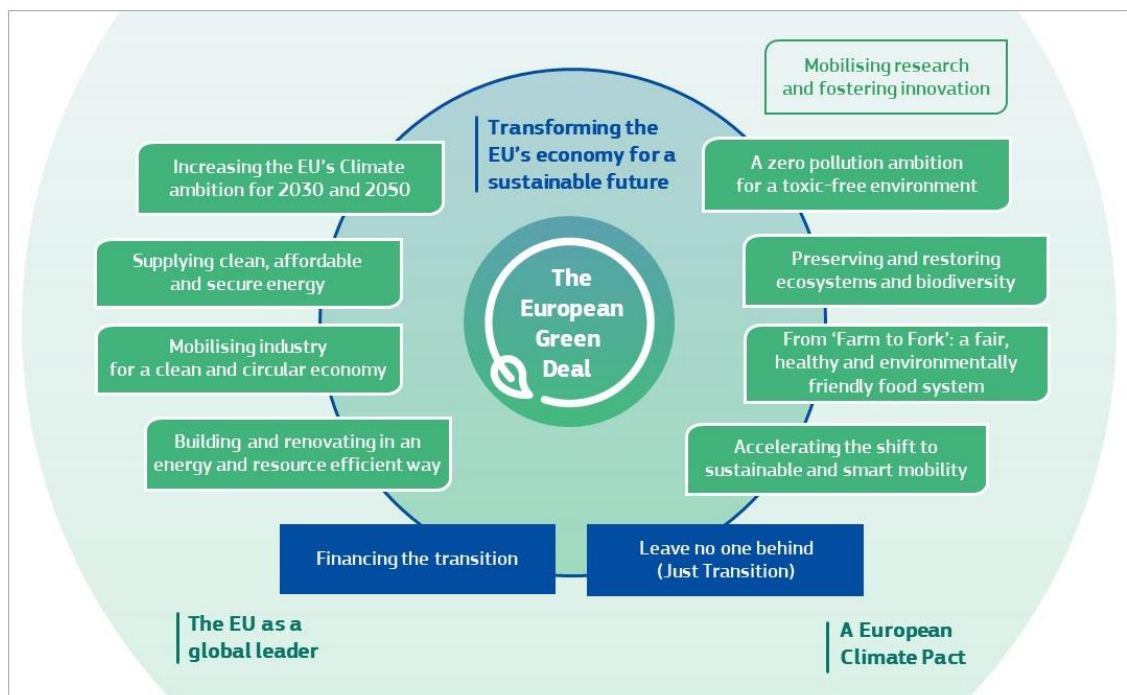


Figure 1: Various elements of the Green Deal (European Commission, 2019)¹

¹ European Commission. (2019). The European Green Deal.

The European Green Deal suggests a wide range of measures regarding different environmental aspects. By switching to a clean, circular economy, we may increase the effectiveness of resources used, while ensuring biodiversity and reducing pollution. The main goals are structured as following (PWC, 2023)²:

- Assist businesses in establishing clean products and technology as the new standard.
- Achieve climatic neutrality by 2050.
- Reduce pollution to protect plants, animals, and human life
- Shielding EU residents from environmental hazards and effects

Yet, to achieve this goal, radical changes are required in the field of transportation, energy production, environmental pollution etc. For the next ten years, at least €1 trillion in sustainable investments are expected to be required, according to the European Commission. The primary tool for mobilizing the necessary sustainable investments over the coming ten years is the EGD Investment Plan (EGDIP). Due to the fact that the public sector cannot afford to make all essential investments on its own, this will include both public and private funds. Although the majority of the remaining money will be raised through the investment program InvestEU, €500 billion will come straight from the EU Budget. (European Commission, 2023)³

InvestEU is a continuation of the Investment Plan for Europe. With InvestEU, all 13 of the current EU financial instruments are housed under one roof. There are four main areas for investment:

- Sustainable Infrastructure
- Digitization, research, and innovation
- Small and Medium-Sized Businesses
- Skills and Social Investment

At least 30% of investments across these four investment sectors will go toward tackling climate-related issues. Three pillars make up the program. Firstly, it aims to mobilise private and public funding for projects that promote the four key areas, using guarantees from the

² PWC. (2023, March 2). The EU Green Deal. Retrieved from <https://www.pwc.com/:https://www.pwc.com/gr/en/advisory/risk-assurance/sustainability-climate-change/eu-green-deal.html>

³ European Commission. (2023, March 3). Overview of sustainable finance. Retrieved from European Commission: https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance_en

EU budget. Secondly, the initiatives seeking financing receive guidance from the InvestEU Technical Advice Hub. Finally, the InvestEU Portal also connects projects with potential investors. The exact financial scheme is given in the following figure. (Fetting, 2020)⁴

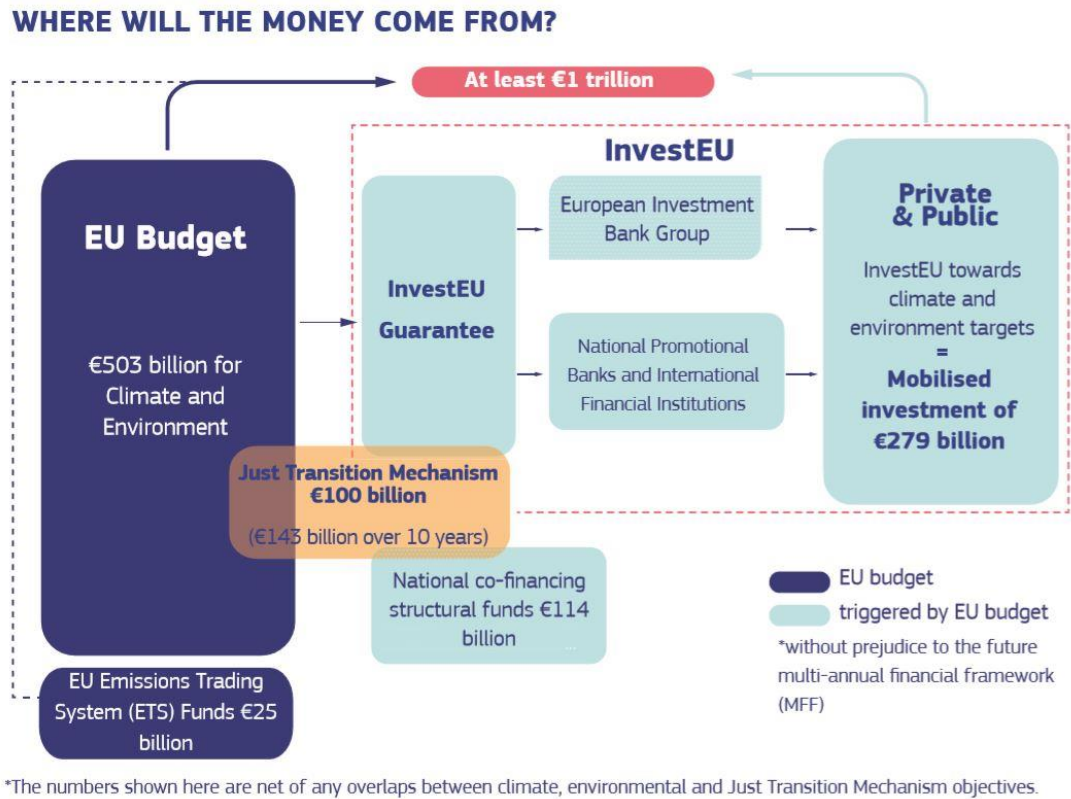


Figure 2: Green Deal financial scheme (European Commission, 2023)⁵

2.2 Sofia Declaration 2018

A summit of the leaders of Europe and the Western Balkans was held in Sofia, Bulgaria, in May 2018 to examine the future of their cooperation. The result of this meeting was the Sofia Declaration. The Western Balkans officials reiterated in this declaration their desire to join the European Union, while the European Union representatives reiterated their support for the Western Balkans nations' admittance as EU members. Yet, a number of conditions must be met before the Western Balkans nations may join the European Union. The core of the

⁴ Fetting, C. (2020). The European Green Deal. Vienna, Austria: Institute for Managing Sustainability.

⁵ European Commission. (2023, March 3). Overview of sustainable finance. Retrieved from European Commission: https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance_en

admissions process is the convergence of the Western Balkan States in terms of socioeconomic and political development. A number of metrics focusing on different areas are used to try to achieve this convergence. (European Cluster Collaboration Platform, 2023)⁶

Particularly, the declaration sets a priority agenda in a wide range of fields. The exact conclusions are given in the appendix, while the main priorities are presented in the following figure.



Figure 3: Sofia Declaration Priority Agenda

⁶ European Commission. (2023, March 10). Western Balkans: EU trade relations with the Western Balkans. Facts, figures and latest developments. Retrieved from European Commission: https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/western-balkans_en

2.3 Establishment of the Energy Community

In October 2005 in Athens, it was signed the Treaty establishing the Energy Community. That was the beginning of a strong and promiscuous co-operation between the members of the European Union and Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Georgia, Moldova, Montenegro, Serbia and Ukraine. What was the scope and the mission of this treaty? The most important key point was the establishment of such an international organization, which will bring together EU and its neighbors and it will lead to a pan-European energy market. Also, within the common energy community, stability, peace and cohesion between those countries will maintain. It is well known that the three main objectives of the EU's energy policy throughout these years are: sustainability, security of supply and competitiveness. (Karova, 2010)⁷

Within the Energy Community those goals are achieved and the most crucial point is that the other countries gain motivation and mobility to maintain and enhance the whole project. The Energy Community was an example of the urge of a common, regional electricity market with third countries. But what was the rationale behind the establishment of the Energy Community and the Athens process?

From European Member Countries part, was firstly the necessity of stability and peace to the SEE region after the dark period of wars and conflicts. It is important also to mention that EU has already supported economically those countries with many financial programs in order to achieve economic growth and further development. Secondly, it is widely known that EU is highly dependent, about 50%, on imports in oil and gas. It still remains throughout the years very crucial to gain its energy "freedom".

Also, it should be borne in mind, that the EU as a whole has set many priorities in the energy domain. The most important of them were the creation of an internal, competitive, energy market, the diversification of the energy mix, the energy security, efficiency and solidarity among them. What were the real incentives that led SEE countries to support the idea of the Energy Community?

From the first moment, the EU understood the difference that exist between those countries and the EU member states. Crucial differences that should be taken into account for future,

⁷ Karova, R. (2010). Rationale Behind the Establishment of the Energy Community. EUI LAW Working Paper No. 2010/14.

mutual projects. From SEE countries, regional cooperation was met as a stability factor and as a chance to integrate further through the European Union. Finally, we should all keep in mind that the establishment of the Energy Community it was a great step towards the European integration for SEE countries and a sample of true credibility. (Karova, 2010)⁸

2.4 Berlin Process

The Western Balkans states (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia) and the E.U. established the Berlin Process in 2014 as a platform to advance closer alignment with the EU and deepen regional integration and cooperation, as a key to economic growth and peace in the region. In this framework, it emphasizes issues like science, business, regional youth exchanges, and infrastructure development. The program has so far accelerated the creation of sustainable transportation infrastructure, sparked the green transition, and promoted regional collaboration, all of which are significant first steps toward the region's aspirations of joining the EU and expanding its membership. (European Investment Bank, 2022)⁹

The yearly summits of the Berlin Process and the numerous meetings held strengthened the communication between senior officials of the EU and the WB and were successful in keeping the EU's attention on the WB. The Process pushed the nations to accelerate the legislative and regulatory changes in accordance with the *acquis* by tying infrastructure investments to the adoption of "soft measures". The Berlin Process has also sparked regional collaboration in addressing issues of regional importance, such as the infrastructure gap, young unemployment in the area, poor competitiveness of economies, and sluggish growth. Generally, the Process was successful in motivating the WB6 leaders to work together and launch novel types of interlinking. (Deutsche Gesellschaft für Internationale Zusammenarbeit, 2018)¹⁰

⁸ Karova, R. (2010). Rationale Behind the Establishment of the Energy Community. EUI LAW Working Paper No. 2010/14.

⁹ European Investment Bank. (2022, November 3). Berlin Process Summit for the Western Balkans. Retrieved from European Investment Bank: <https://www.eib.org/en/events/eu-western-balkans-summit-2022>

¹⁰ Deutsche Gesellschaft für Internationale Zusammenarbeit. (2018). The Berlin Process in a Nutshell. German Federal Ministry for Economic Cooperation and Development.

The EU's strategy toward the WB6 nations may be summed up by the Berlin Process as "change as addition." Its 2014 mission statement said that it will "bring more real gains" in terms of enlargement while also maintaining the pace of reforms in the area. Almost ten years after its launch, the program has seen its focus broaden from supporting infrastructure projects to promoting mobility. Although the Berlin Process's objectives obviously (and consciously) coincide with those of the EU's expansion strategy, it depends on significant distinctions in these areas that make it stand out as a unique initiative. (Marciacq, 2017)¹¹

2.5 European Union's overall support for WB6

The Western Balkans as a whole have a view toward European integration, which was acknowledged for the first time at the Feira European Council in 2000. The European Councils in Thessaloniki in 2003 and Sofia in May 2018 both reaffirmed this fact. The Stabilization and Association Process, the EU's approach to the Western Balkan nations, incorporates this European viewpoint. All Western Balkan nations will become EU members as a result of this procedure. Since the beginning of the Stabilization and Association Process, the EU has gradually signed bilateral free trade agreements (FTAs), also known as "Stabilization and Association Agreements" (SAAs), with each of the Western Balkan partners: Albania (2009), North Macedonia (2004), Montenegro (2010), Serbia (2013), Bosnia and Herzegovina (2015), and Kosovo (2016). (European Commission, 2023)¹²

2.6 Specific support for the implementation of the WB6 -EU Partnership

Inclusion, synchronization, the creation of a unified market, and supplier diversification are all components of the European Union's approach to the area of Western Balkans under the term of energy community. For South Eastern Europe's economy to grow and remain stable, the supply and demand for energy must be better balanced. This calls for a strong commitment from the region's nations to market-oriented reforms in order to: increase

¹¹ Marciacq, F. (2017). *The European Union and the Western Balkans after the Berlin Process: Reflecting on the EU Enlargement in Times of Uncertainty*. Sarajevo: Dialogue Southeast Europe.

¹² European Commission. (2023, March 10). *Western Balkans: EU trade relations with the Western Balkans. Facts, figures and latest developments*. Retrieved from European Commission: https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/western-balkans_en

overall energy efficiency and conservation, lower production's excessively high energy intensity in comparison to global standards, strengthen national institutional capacities, and align legal and regulatory frameworks with EU standards.

Moreover, it means that nations should be ready to take full advantage of the enormous benefits that might come from sharing energy with their neighbors and among themselves. This suggests that the existing dispersion of the energy supply may be resolved by collaboration between the many parties involved and through the actual physical connection of the network. Hence, a regional approach to energy supply offers important benefits in terms of better using the supply and production capacity now in place as well as maximizing future investments. Both the electricity and natural gas industries have already made significant strides in the previous several years toward reaching these goals.

Chapter 3: Methodology

As it has already been mentioned, the current study focuses on the WB6 cooperation in terms of energy. For this purpose, a qualitative approach is adopted, based on secondary data, so as to clarify the dynamics and the trends in this field. Besides, although there are plenty of studies on energy issues, an important gap is identified on WB6 “alliance” future. Secondary analysis involves the re-use of pre-existing qualitative data derived from previous research studies. The main advantages of this approach include:

- Easy access
- Low-cost
- Time-saving
- Longitudinal analysis
- Wide range of sources

Yet, there are disadvantages too, like biasness. To sum up, both primary and secondary data have pros and cons and the final selection is determined by the needs of each study. In this case, secondary data analysis is imposed by the research questions which are formed as following:

- a) Why energy cooperation between WB6 and EU is important?
- b) What are the joint targets of the EU-WB6 energy alliance?
- c) How is this energy partnership developed?
- d) What is the role of European energy institutions and how do they support the EU-WB6 energy partnership?

Chapter 4: Energy Resources and Capabilities – Energy profiles of Western Balkans countries

Having already examined the relationship between EU and WB6, the current chapter focuses on the resources and capabilities of each Western Balkan country. Firstly, the energy profiles are developed and then an extensive analysis is conducted so as to define the characteristics of the region as a whole.

4.1 Country profiles

There are numerous various measures used when discussing energy, including joules, exajoules, terawatt-hours, British thermal units, million tonnes of oil equivalents, and barrel equivalents, to mention a few. This makes comparisons challenging and might be confusing. In the current section a robust background is developed for each of the WB6 countries both in terms of economics and energy so as to prepare the further comparative analysis.

4.1.1 Albania

With a population of about 2.85 million, hydropower provides practically all of Albania's electrical needs. Yet, the current fact, despite the obvious benefits, leads to a quite vulnerable energy sector, taking into account the climate change that implies a wide range of risks. As can be seen from the graph below, the country must import electricity on a yearly basis due to the massively variable hydropower output, despite the recent installation of hundreds of megawatts in new facilities. In addition, Albania has a 98 MW gas/oil-fired power plant in Vlora that was built with financial assistance from the World Bank, EBRD (European Bank of Reconstruction and Development) and EIB (European Investment Bank) but has never been put into service owing to technical issues. It will soon start running on gas after being converted.

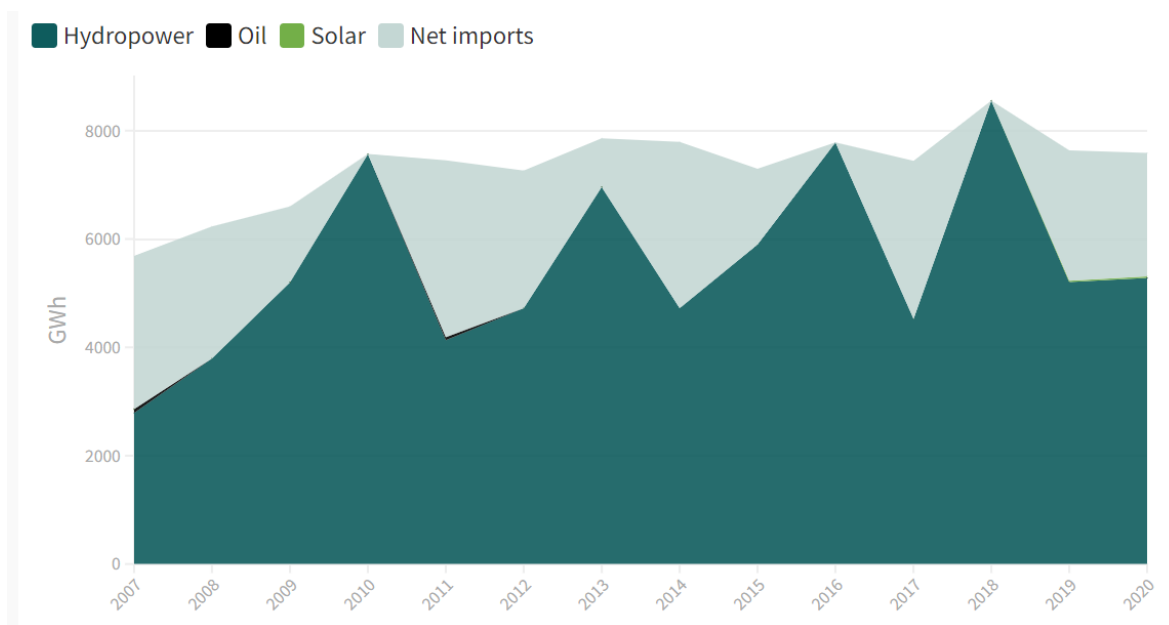


Figure 4: Electricity mix – Albania

Albania is one of the few Balkan countries producing oil. While Bankers' Petroleum, once backed by the EBRD and IFC and now controlled by the Chinese, is the major oil producer, Albpetrol, a state-owned company, is also involved in the development, production, and trade of crude oil. Despite having the contentious Trans-Adriatic Pipeline completed on its soil, Albania is currently not linked to any global gas networks. A little quantity of gas is produced in the nation; it is mostly used in the oil sector and for refining. A 498 kilometer pipeline network that is largely inactive and out of date also exists. (Bankwatch Network, 2021)¹³

In general, despite having one of the highest concentrations of energy resources, Albania has a high domestic electricity demand, which is undoubtedly a side effect of economic activity and a critical enabler of future economic growth. The World Bank gave Albania a score of 157 (out of 190) for ease of doing business and a score of 0 (between 0 and 8) for power dependability. European and Central Asian nations obtained an average score of 5, whereas high-income OECD nations received a score of 7. Given these facts, it is not shocking at all

¹³ Bankwatch Network. (2021, April 10). The energy sector in Albania. Retrieved from Bankwatch Network: <https://bankwatch.org/beyond-fossil-fuels/energy-sector-in-albania>

that Albania's industrial sector remains underdeveloped. (Kumar, Stauvermann, & Kumar, 2019)¹⁴

The unreliable and unprofitable power sector is one of the key challenges facing Albania's energy industry. According to estimates by Bidaj et al. (2015), between 29% and 52% of the total electrical supply is lost each year for both technical and non-technical (theft and unpaid bills) causes (Bidaj, Alushaj, Prifti, & Chittum, 2015)¹⁵.

4.1.2 Bosnia & Herzegovina

Bosnia and Herzegovina, a nation of around 3.5 million, is the only one in the Western Balkans to be a net exporter of energy at the moment. Five lignite power plants make up the remaining portion of its energy producing capacity, which is made up of more than half hydropower. Around 2076 MW of net installed larger-than-10 MW hydropower, 2065 MW of lignite, 180 MW of minor hydropower, 135 MW of wind power, 57 MW of solar, and 93 MW of industrial power generation were all present in the nation as of 2021. Depending on the hydrological conditions, generation levels range between two-thirds coal and one-third hydropower. The energy mix is given below. (Bankwatch Network, 2021)¹⁶

¹⁴ Kumar, R., Stauvermann, P., & Kumar, N. (2019). Exploring the Effect of Energy Consumption on the Economic Growth of Albania. *Inzinerine Ekonomika-Engineering Economics*, 30(5), 530-543.

¹⁵ Bidaj, F., Alushaj, R., Prifti, L., & Chittum, A. (2015). Evaluation of the heating share of household electricity consumption using statistical analysis: a case study of Tirana, Albania. *International Journal of Sustainable Energy Planning and Management*, 5, 3-14.

¹⁶ Bankwatch Network. (2021, April 10). The energy sector in Bosnia and Herzegovina. Retrieved from Bankwatch Network: <https://bankwatch.org/beyond-fossil-fuels/the-energy-sector-in-bosnia-and-herzegovina>

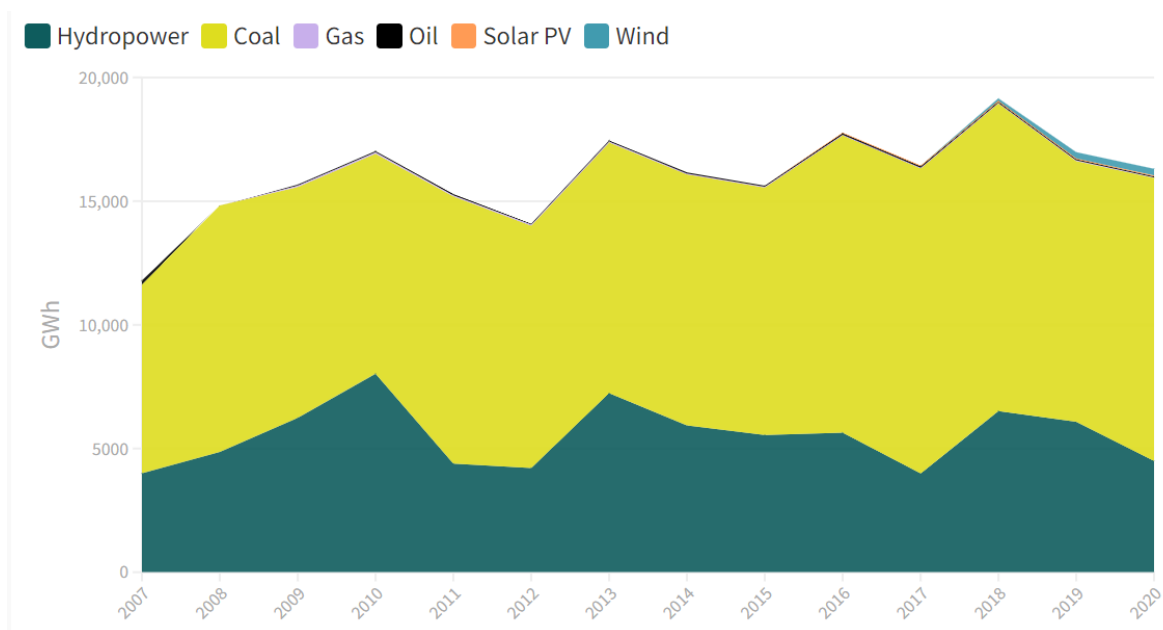


Figure 5: Electricity mix - Bosnia & Herzegovina

By enhancing environmental governance and creating replicable models for environmental planning, the "Mainstreaming environmental governance: linking local and national action programme in Bosnia and Herzegovina" (the Programme) aims to improve local management of environmental resources and service delivery. With a focus on the following sub-sectors: energy efficiency (EE), renewable energy sources (RES), and public buildings, a multi-pronged strategy is specifically chosen to reach distinct stakeholders in different ways. In order to implement EE/RES projects, the Programme provides grants to municipalities. It also makes clear that a number of smaller-scale projects can have a greater impact because they enable a decentralization of the benefits (energy savings, health improvements, local economic growth, "green jobs," awareness-raising, etc.) to be spread across the nation. (Sustainable Development Goals Fund, 2017)¹⁷

The Program's major goals are to cut back on the use of fossil fuels, lower CO2 emissions, and lower energy costs in public buildings, all of which will reduce spending on public services. To address these energy concerns, a special, multifaceted strategy is adopted, with

¹⁷ Bankwatch Network. (2021, April 10). The energy sector in Bosnia and Herzegovina. Retrieved from Bankwatch Network: <https://bankwatch.org/beyond-fossil-fuels/the-energy-sector-in-bosnia-and-herzegovina>

a focus on energy efficiency (EE) and renewable energy sources (RES) in public buildings. (Sustainable Development Goals Fund, 2017)¹⁸

4.1.3 Kosovo

Kosovo has around 1.8 million inhabitants. Its two outdated lignite power plants, Kosovo A (5 units with 800 MW installed) and Kosovo B (2 units with 678 MW installed), are essentially its sole sources of energy output. The total actual capacity of these plants is now about 915 MW. They are notorious for contributing to air pollution, and Kosovo B is the coal plant in the Western Balkans with the highest dust emission. The primary fuel mix is given below.

A proposed new 500 MW lignite power plant, Kosova e Re, attempted to reverse the current situation promoting a much more sustainable energy mix before it was finally abandoned in 2020. Yet, it is obvious that the country needs to restructure its strategy in the current field so as to achieve sustainability, efficiency, flexibility and energy security. Besides, we should not underestimate the constant political tensions between Kosovo and Serbia.

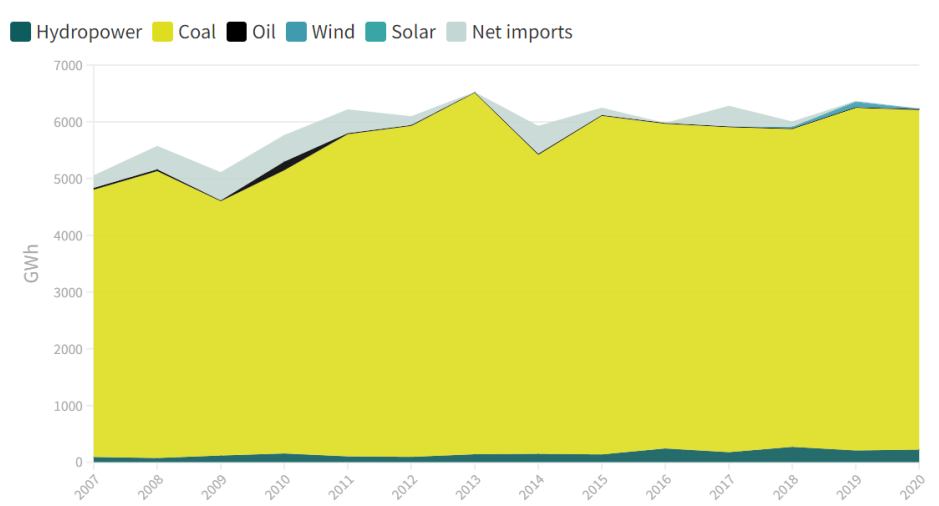


Figure 6: Electricity mix – Kosovo

¹⁸ Bankwatch Network. (2021, April 10). The energy sector in Bosnia and Herzegovina. Retrieved from Bankwatch Network: <https://bankwatch.org/beyond-fossil-fuels/the-energy-sector-in-bosnia-and-herzegovina>

A number of recent studies agree that Kosovo, despite its attachment to fossil fuels, has a quite good potential for the development of renewable energy sources and especially for wind energy. The investors seem also to understand this opportunity focusing on wind parks. The wind power potential of the country by area is presented in the following map (Lajqi, Durin, Berisha, & Plantak, 2020)¹⁹

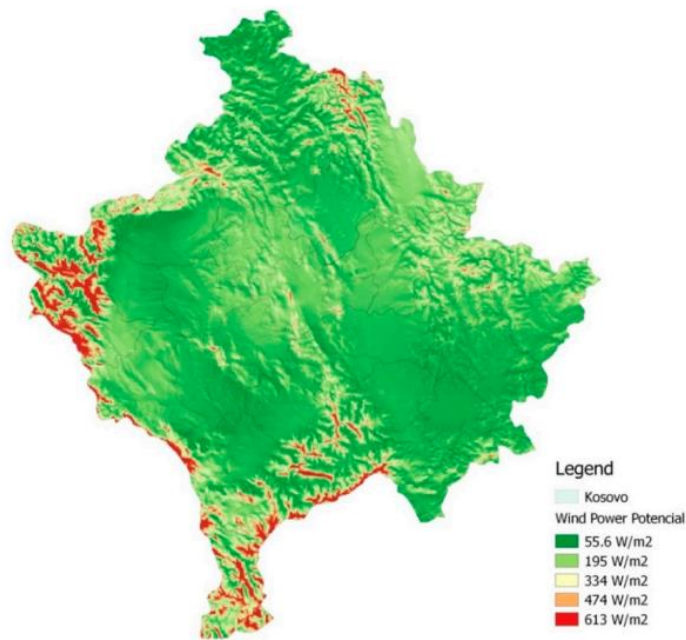


Figure 7: Wind power potential for 1 m² of surface rotor turbine installed at 100 altitudes above the ground level in different Kosovo area locations (Lajqi, Durin, Berisha, & Plantak, 2020)

On the other hand, biomass is certainly less attractive. Only the Gjakova thermal heating plant has submitted an application for the final authorization for 1.2 MW thus far (Lappe-Osthegea & Andreasb, 2017)²⁰. The lengthy licensing processes and expensive cost of implementing the necessary technologies are to blame for the significant lack of investor interest in this area. Nevertheless, in sum, the adoption of innovative energy technologies in Kosovo's energy mix not only contributes to the decarbonization of the country, but also promotes economic development as a whole.

¹⁹ Lajqi, S., Durin, B., Berisha, X., & Plantak, L. (2020). Analysis of the Potential for Renewable Utilization in Kosovo Power Sector. *Environments*, 7(49), 1-16.

²⁰ Lappe-Osthegea, T., & Andreasb, J. (2017). Energy justice and the legacy of conflict: Assessing the Kosovo C thermal power plant project. *Energy Policy*, 107, 600-606.

4.4 Montenegro

Unlike Kosovo, Montenegro takes a great advantage of hydropower to cover its needs. The 621 thousand residents of the country mainly lie on Perućica 307MW and Piva 342MW hydropower plants and Pljevlja 225MW lignite power plant, which all being run under public authorities. Due to the KAP aluminum factory, which has occasionally provided up to 40% of the nation's electrical usage, Montenegro imported a sizable quantity of electricity till 2009. But the plant is currently experiencing a persistent crisis, making its future uncertain. Although the demand for electricity in the country as a whole has been on the decline since 2011, it still made up 17% of the country's total consumption in the year 2020. The plant has only been operating at a basic level since December 2021, utilizing a lot less power than previously. (Bankwatch Network, 2021)²¹

The capacity of Montenegro to provide its own domestic energy demand has changed during the past 10 years based on the hydrological environment. Although it still needed to import a significant amount of energy in the empty years of 2011, 2012, and 2017, it was able to fulfill domestic demand in the rainy years of 2010, 2013, and 2018.

The exact electricity mix of Montenegro is given in the following figure, while next is shown the wind potential of the country.

²¹ Bankwatch Network. (2021, April 10). The energy sector in Montenegro. Retrieved from Bankwatch Network: <https://bankwatch.org/beyond-fossil-fuels/the-energy-sector-in-montenegro>

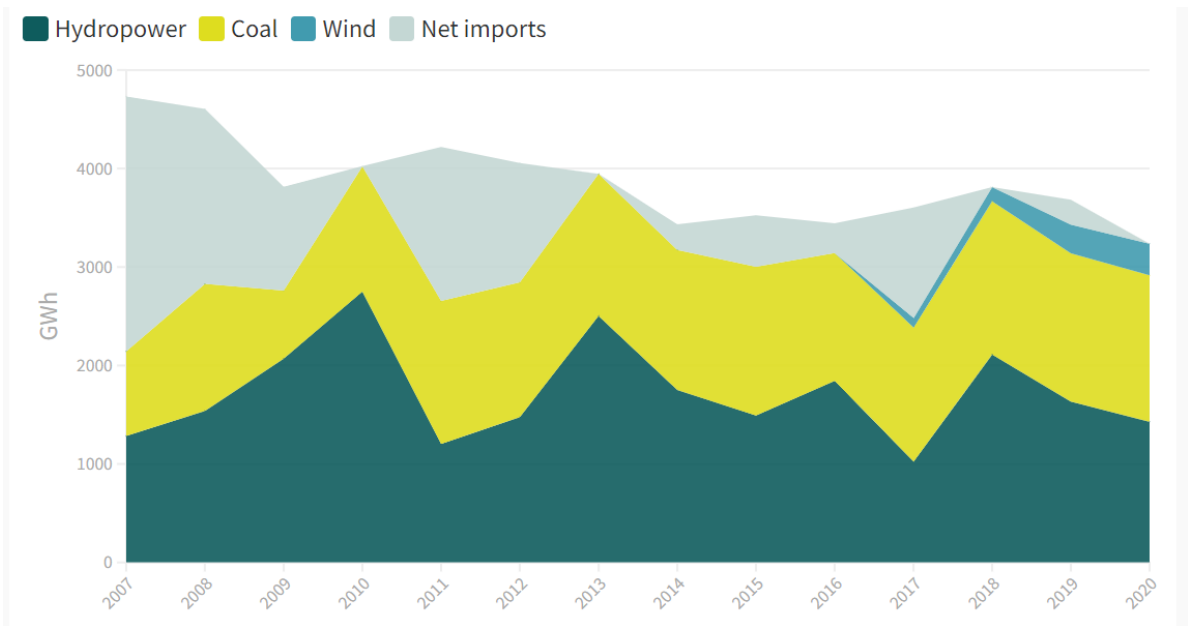


Figure 8: Electricity mix – Montenegro

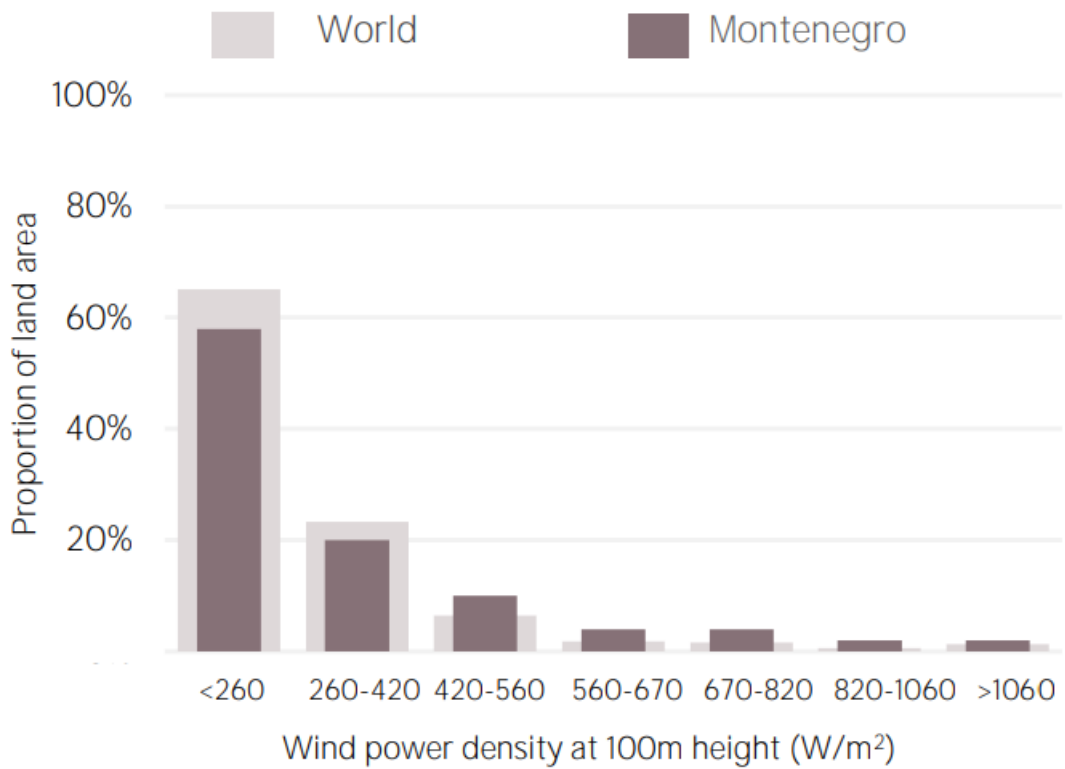


Figure 9: Montenegro's wind potential

4.5 North Macedonia

Apart from energy imports, North Macedonia is mostly dependent on fossil fuels and hydropower, just like the most of WB-6 countries. A total of 5,436 GWh of electricity were produced in 2020, while 2,965 GWh were imported to meet the whole domestic needs. (Bankwatch Network, 2021)²²

The country faces significant challenges in the transition to green energy and the decarbonization of the energy sector and the economy due to its high dependence on traditional energy sources, while renewable energy share is extremely low.

To cope with this situation, the government enacted the new Energy Development Strategy 2020–2040 in January 2020. This strategy elaborates three potential scenarios: reference (business as usual), moderate transition, and green (high decarbonization). Both the moderate transition and sustainable scenarios call for the phase-out of coal in 2025, making it the initial nation in the region to put out specific possibilities for a phase-out of coal before 2030. The ultimate choice on which scenario will be put into practice won't be made until later in 2020, but given that the green scenario is viewed in the plan as the least expensive alternative, it is probable that the nation will shift out of fossil fuels. (Mahmudi, 2022)²³

²² Bankwatch Network. (2021, April 15). The energy sector in North Macedonia. Retrieved from Bankwatch Network: <https://bankwatch.org/beyond-fossil-fuels/the-energy-sector-in-macedonia>

²³ Mahmudi, S. (2022). The Drivers and Obstacles of Green Energy: Transition in Republic of North Macedonia. *International Journal of Academic Research in Business and Social Sciences*, 12(8), 250-262.

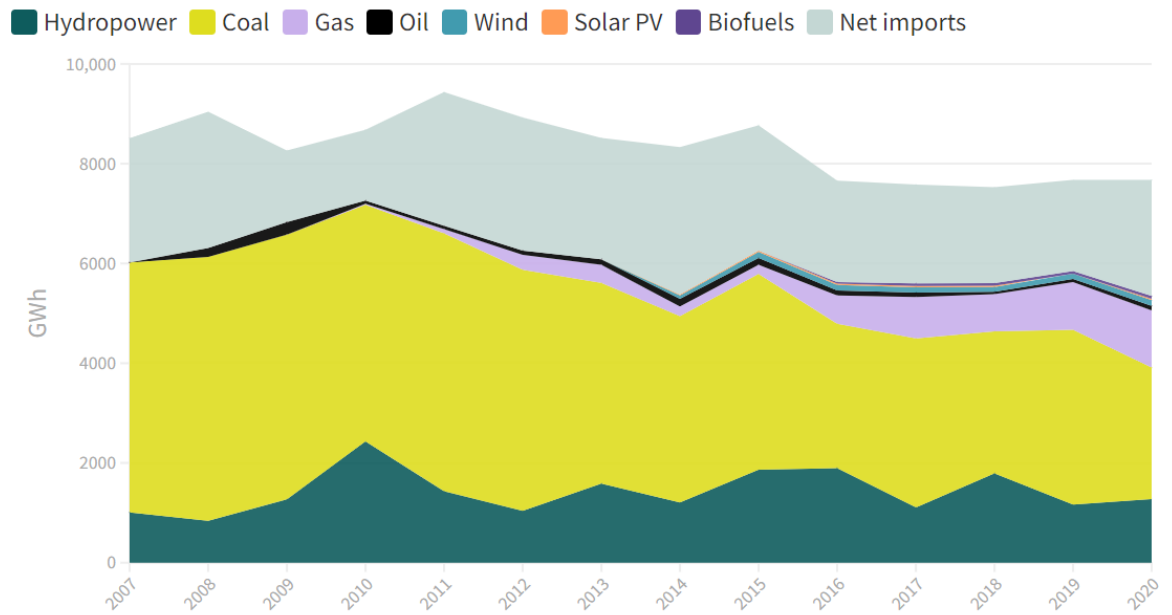
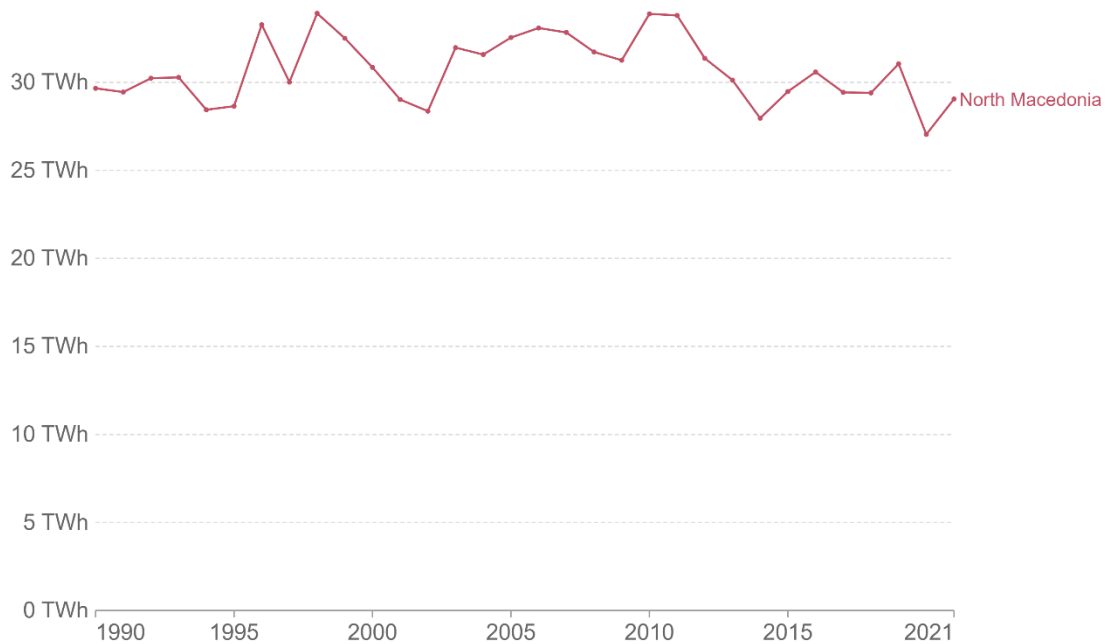


Figure 10: Electricity mix – North Macedonia

Primary energy consumption

Primary energy consumption is measured in terawatt-hours (TWh).



Source: BP Statistical Review of World Energy; and EIA

OurWorldInData.org/energy • CC BY

Note: Data includes only commercially-traded fuels (coal, oil, gas), nuclear and modern renewables. It does not include traditional biomass.

1. **Primary energy:** Primary energy is the energy as it is available as resources – such as the fuels that are burnt in power plants – before it has been transformed. This relates to the coal before it has been burned, the uranium, or the barrels of oil. Primary energy includes energy that is needed by the end user, plus inefficiencies and energy that is lost when raw resources are transformed into a useable form. You can read more on the different ways of measuring energy [in our article](#).

Figure 11: Primary energy consumption in North Macedonia

4.6 Serbia

Last but not least, Serbia, the biggest of WB6 countries, with an approximate population of about 6.9 million, produces the majority of the power it needs domestically. Around 70% of Serbia's electricity is produced using low-quality lignite coal, which results in significant pollution. The majority of the remaining electricity is produced by hydropower plants. Despite recent years of rapid growth for wind energy, just 2.7% of all electricity produced in 2020 came from it. The exact electricity mixture of Serbia through years 2010-2020 is shown below.

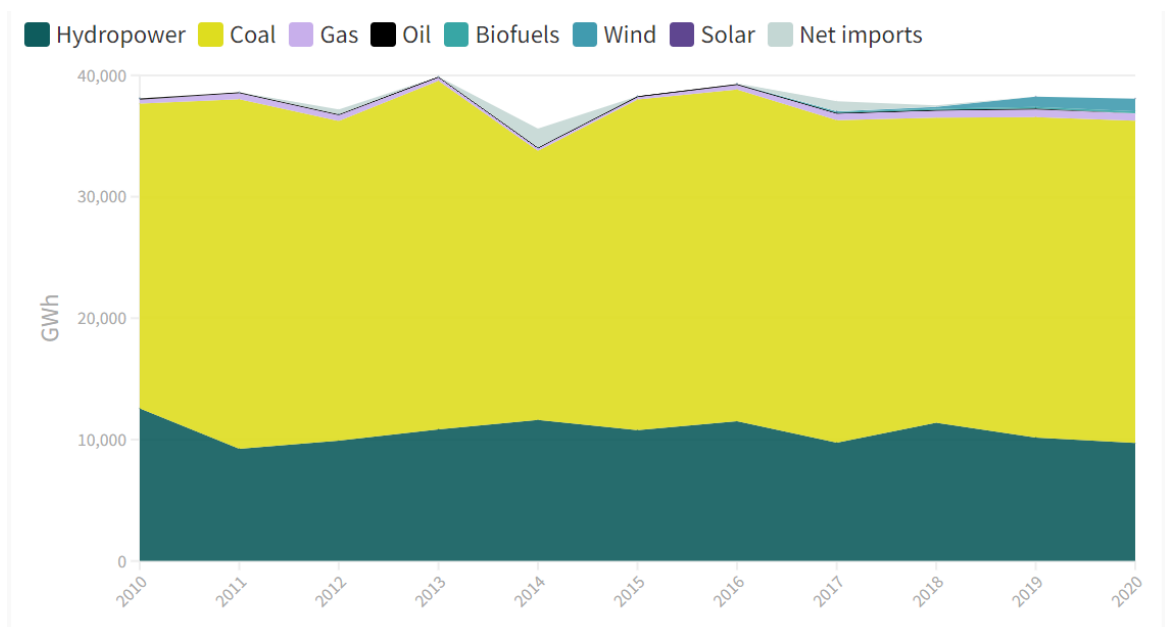


Figure 12: Electricity mix – Serbia

As the country plans to become a member of European Union, decarbonization emerges as an ultimate goal in accordance with community's policy (EU 2050). Yet, little progress is made by far and Serbia seems to remain attached to traditional sources. The 350 MW Kostolac B3 lignite power plant's construction, which began in early 2023, is the most

notable example of how the EPS intends to stay tied to a carbon-intensive energy system. (Bankwatch Network, 2021)²⁴

Serbia needs to take full advantage of its potential in terms of renewable energy sources and especially wind energy. In 2002, extensive investigation into Serbia's potential for wind energy began, commissioned by the Electric Power Industry of Serbia (EPS). The study took into account long-term data from 20 weather stations, that produced extremely thorough results and conclusions that the country has a sizable wind energy potential. (Potic, Joksimovic, Milincic, Kicovic, & Milincic, 2021)²⁵

The government revised its strategy for growth and energy policy in 2005, highlighting the benefits of new renewable energy sources as an alternative to the ongoing energy crisis. The Serbian Wind Atlas of Research was the result of this technique. It took 18 to 24 months to record the wind characteristics up to a 50 m height above the ground. The Wind Atlas project is finished for the region of Vojvodina, but it still has to be finished for the remainder of the nation. According to the Ministry of Mining and Energy, investigated sites would yield a profit if the slowest yearly wind speed fell between 4.9 and 5.8 m/s.

²⁴ Bankwatch Network. (2021, April 20). The energy sector in Serbia. Retrieved from Bankwatch Network: <https://bankwatch.org/beyond-fossil-fuels/the-energy-sector-in-serbia>

²⁵ Potic, I., Joksimovic, T., Milincic, U., Kicovic, D., & Milincic, M. (2021). Wind energy potential for the electricity production - Knjaževac Municipality case study (Serbia). *Energy Strategy Reviews*, 33.

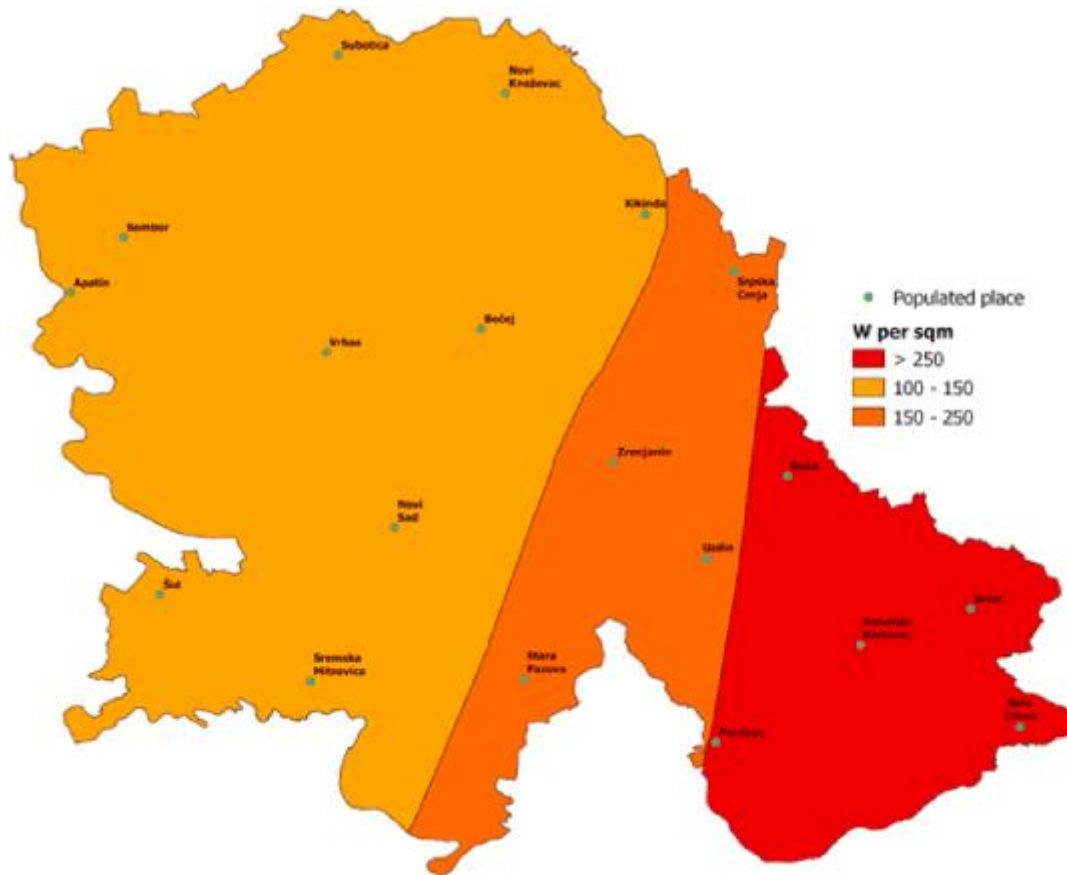


Figure 13: The average annual density of wind power in Vojvodina (Potic, Joksimovic, Milincic, Kicovic, & Milincic, 2021)

4.2 The WB6 region characteristics

Let us now take a closer look to the exact characteristics of the WB6 region. The current analysis makes it possible to design strategies and suggest measures that are adaptable and thus efficient.

Since the New Millennium, WB6 countries have adopted a series of economic policies that gradually improved their competitiveness and ensured their financial stability against the ever-changing environment. However, Covid-19 pandemic had a severe impact on the area, with a 3.3% decline in gross domestic product aggravating already-existing structural problems and surfacing new ones. The pandemic has made it clear that the region's reform goals need to be reoriented in order to place a larger emphasis on sustainability, inclusivity, and citizen well-being. In light of this, it is crucial for the WB6 economies to develop a

comprehensive, evidence-based structural reform program that provides a route to sustainable, inclusive development and growing living standards. (OECD, 2021)²⁶

The main indexes for them are presented in the following figures.

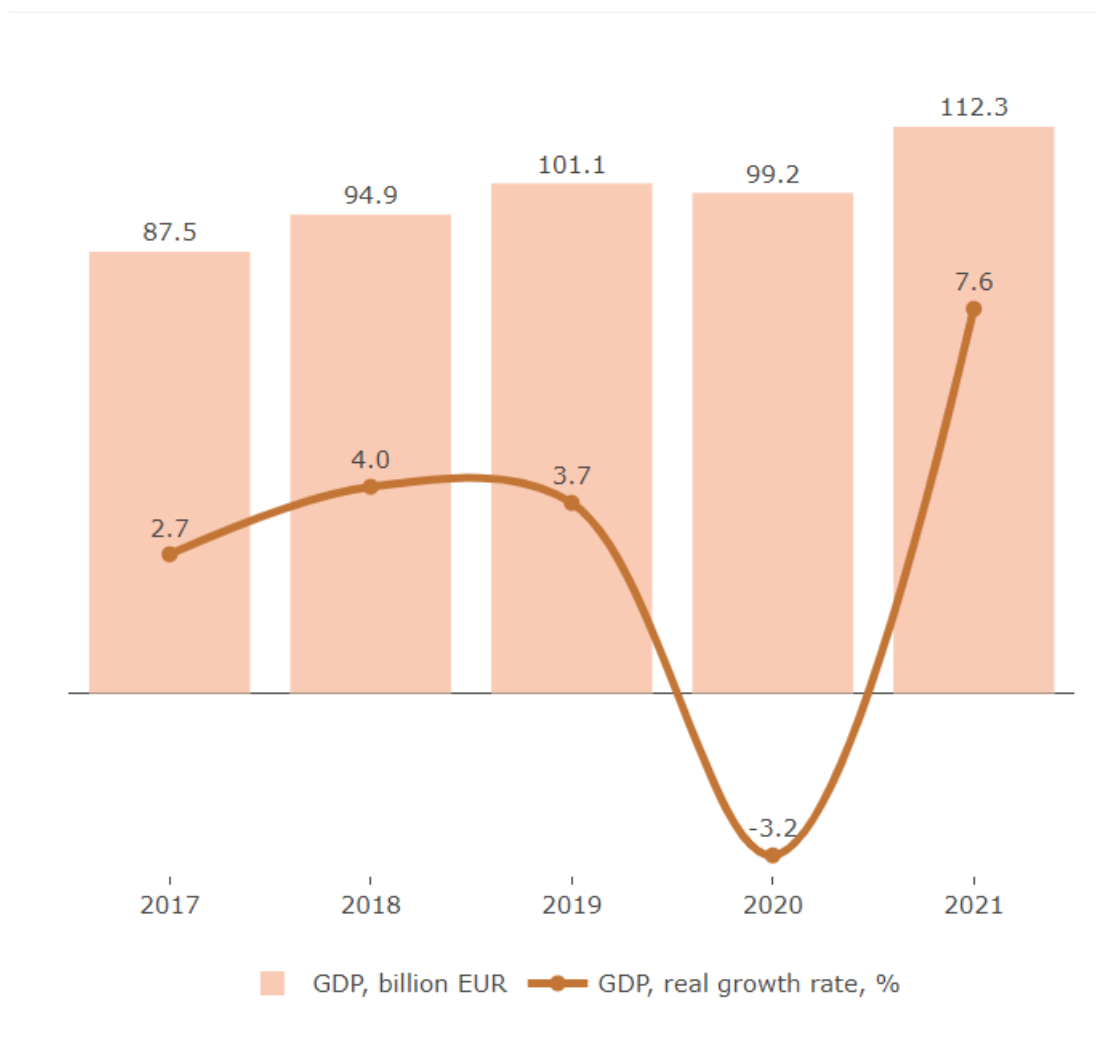


Figure 14: WB6 - GDP, current prices and real growth rate, in constant prices of the previous year (<https://www.wb6cif.eu/>)

²⁶ OECD. (2021). *Competitiveness in South East Europe 2021: A Policy Outlook, Competitiveness and Private Sector Development*. Paris: OECD Publishing.

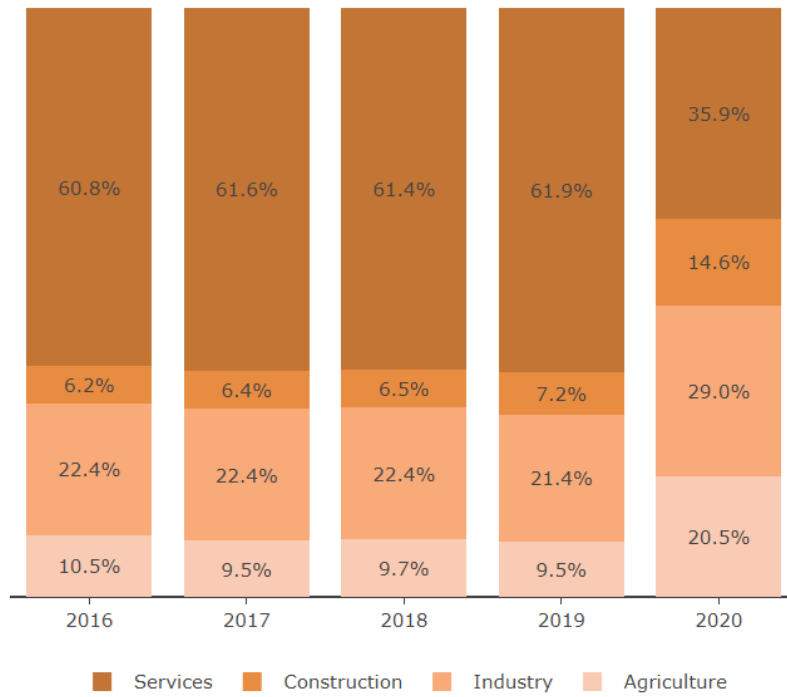


Figure 15: WB6 - Share of GVA by sectors (<https://www.wb6cif.eu/>)

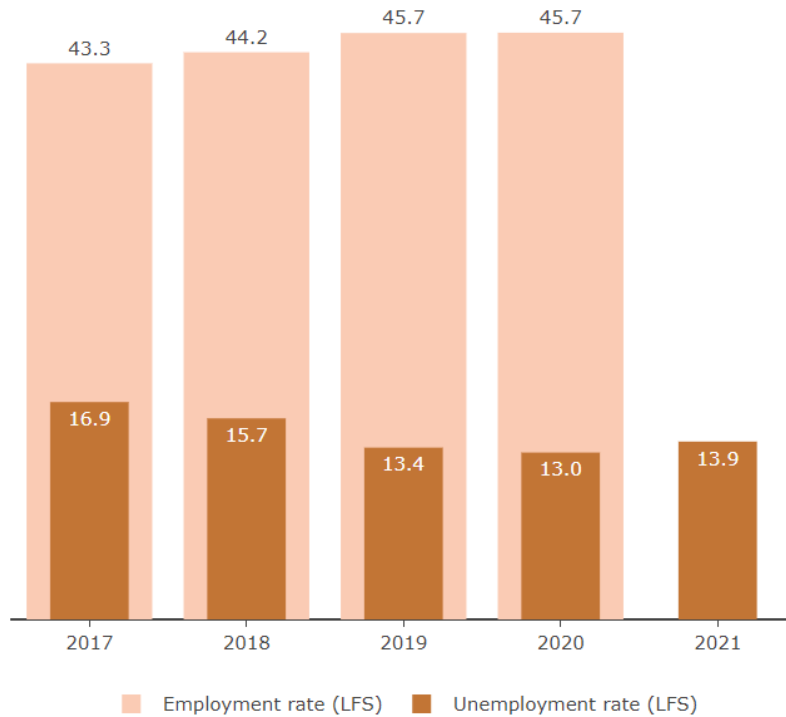


Figure 16: WB6 - Trends in employment / unemployment rate with the population of age 15 and over, according to the Survey on Labour Force (in %) (<https://www.wb6cif.eu/>)

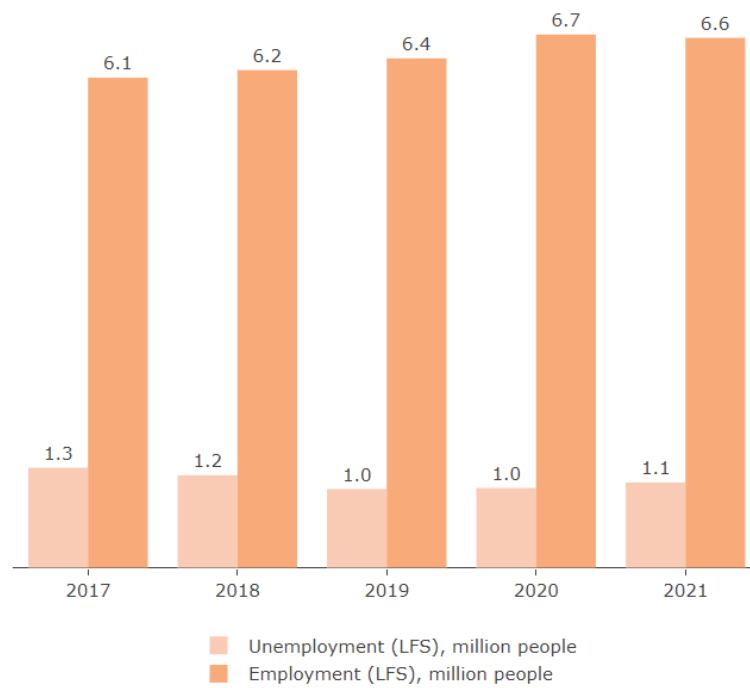


Figure 17: WB6 - Employment and unemployment with the population of age 15 and over, according to the Survey on Labour Force (<https://www.wb6cif.eu/>)

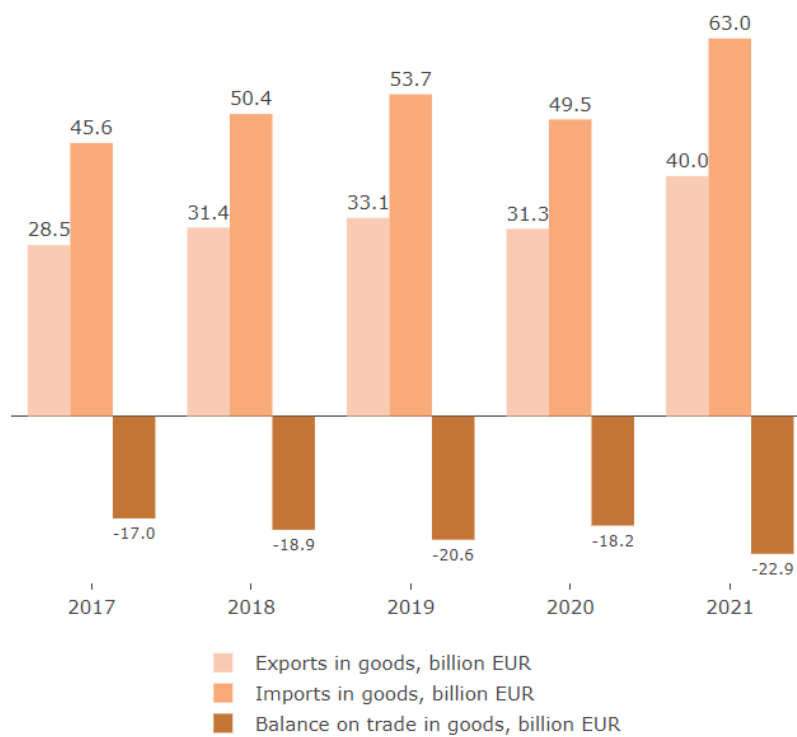


Figure 18: Foreign trade, in goods (<https://www.wb6cif.eu/>)

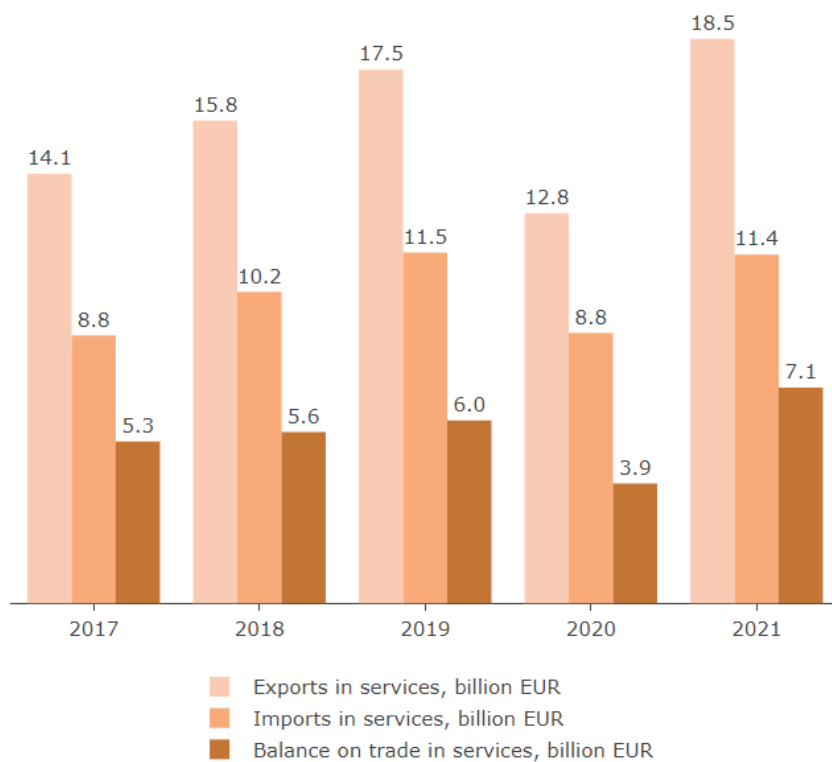


Figure 19: WB6 - Foreign trade, in services (<https://www.wb6cif.eu/>)

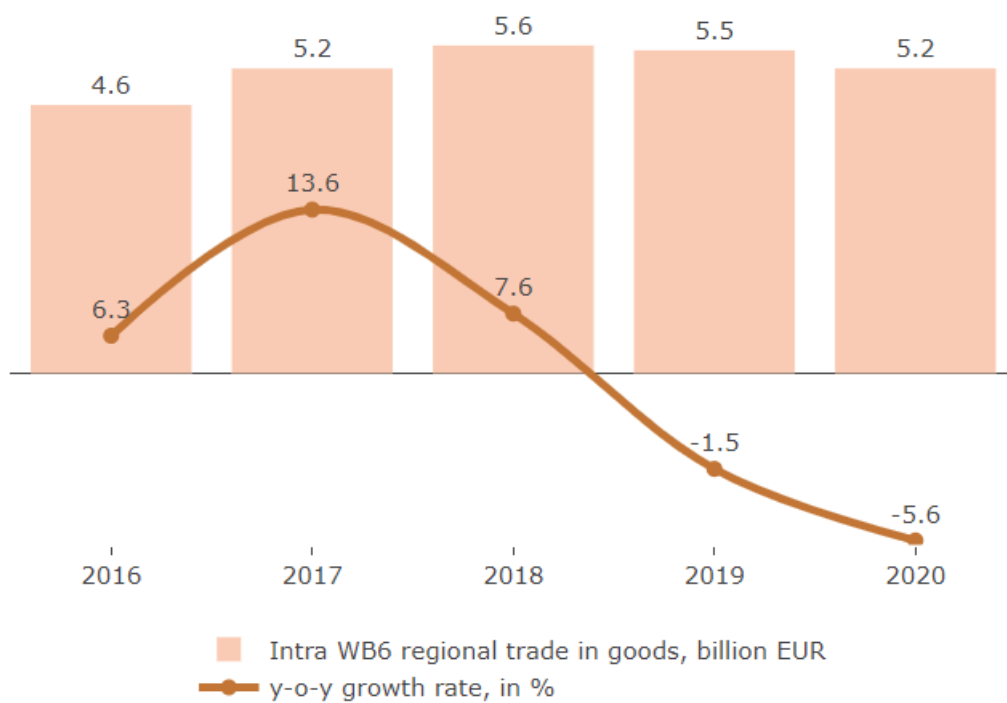


Figure 20: WB6 - Intra WB6 regional trade in goods (<https://www.wb6cif.eu/>)

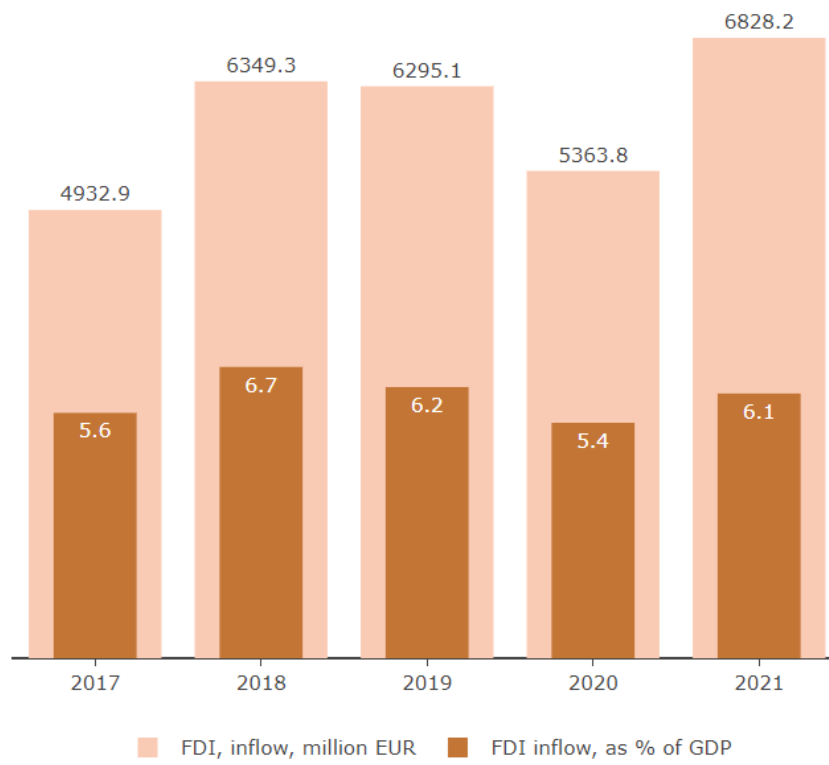


Figure 21: WB6 - FDI, inflow and as % of GDP (<https://www.wb6cif.eu/>)

Chapter 5: Further Development of the Energy Partnership

Based on the previous analysis, in the current chapter we are able to assess the WB6 partnership and explore its further development. Besides in an ever changing environment, it is obvious that strategies cannot be remain static and need to get in line with the needs of each era. Especially in terms of energy, we ought to keep track of the environmental issues so as to achieve energy security and sustainability.

5.1 Evaluation

As the Western Balkans starts to look beyond the pandemic, the policy focus will need to shift back toward addressing the key structural impediments to job creation and economic transformation. Many of these constraints, which among others include weak firm-level productivity, lack of market competition, limited regional economic integration, and weak institutions, have become even more apparent as a result of the stresses that COVID-19 has placed on the region. At a time when fiscal space has narrowed, structural reforms would help boost private investment as well as ease preparation toward EU membership.

Furthermore, the six countries of the Western Balkans now find themselves at a key decision point regarding the impending green transition. The external environment is going through a fundamental structural change. Global strides toward action on climate change, biodiversity loss, air and plastic pollution, and other existential environmental crises are changing the foundations of economic activity, consumer choices, and investor behavior everywhere. Yet, the Western Balkans are currently characterized by a development model tilted toward familiar brown industries, supported by “sticky” brown skills and jobs, and established value chains and market infrastructure.

A resilient recovery, and sustainable growth going forward, would require regionwide efforts on advancing structural reforms and accelerating the low-carbon transition. When compared to EU peer countries, key areas in which the Western Balkans lags behind, and that would bring the bulk of growth, are business regulation and the quality of institutions—that is, governance. If business climate reforms are implemented, together with the necessary

policies to support labor market participation and formal employment, private investment could provide further support to growth and would allow for growth to translate into poverty reduction. Further strengthening the independence of public institutions, especially the judiciary, would not only improve countries' prospects of joining the EU, but would ensure a level playing field for all businesses and entrepreneurs, hence favoring a more equitable recovery.

A region-wide effort is also required to promote green growth. This could be done by, for example, promoting efficiency gains, expanding green industries and technologies, supporting green jobs, and proactively building up resilience to climate and disaster risks. Adequately pricing carbon would not only provide incentives to focus on green recovery but would also offset the adverse impact of the EU Carbon Border Adjustment Mechanism the Western Balkan exports competitiveness.

5.2 The need for reform

The Energy Community Treaty revision gives a great chance to tackle these significant concerns in a coordinated manner and safeguard a feeling of unity among the WB6 nations. The continued dedication of its members to an improved legal system and the long-term objectives of the EU, such as decarbonization (by 2050), is necessary to develop the Energy Community.

The upcoming diversification of economy and the expansion of connections with other countries apart from Russia brings the Energy Community's members both tremendous potential and difficult obstacles. Under these circumstances, WB6 need to strengthen their commercial connections not only with the E.U. but also with Turkey and China as well (Balcer, 2020). The key goals of Russia will be adversely affected by these long-term geopolitical effects of energy-related changes. The United States, on the contrary, has decided to invest in the region by working with NATO allies, including Greece as well. (Manolikidis, 2021)²⁷

²⁷ Manolikidis, S. (2021). Geopolitical Challenges and Cooperation in the European Energy Sector: The Case of SE Europe and the Western Balkan Six Initiative. In M. Mathioulakis, *Aspects of the Energy Union: Application and Effects of European Energy Policies in SE Europe and Eastern Mediterranean* (pp. 101-114). Cham, Switzerland: Palgrave Macmillan.

WB6 Community ought to search beyond the strict boundaries of conventional energy sources if it is to have a beneficial impact on the region in terms of socio-economic and environmental goals.

5.3 The role of E.U.

There is no doubt that EU plays an important role within energy community due to its dominant in European continent. Thus, the union has developed a range of policies so as to accelerate the energy transition of Western Balkans.

After decades of conflict and socio-economic decline during the '90s, WB6 nations finally tend to EU participation and Euro-Atlantic organizations in order to cope with the current situation and the problems facing. Having developed under a communist system, most of them entered the new era with outdated infrastructure, poor governance and intense differences among social classes. As a result, from an early stage became noticeable within EU the need to build bridges with Western Balkans. Constant efforts were made towards economic development, social balance and strong institutional capacity during the 2000s. Yet, before the WB6 achieve those goals the circumstances changed again with the involvement of Russia, Turkey and China in geopolitical map of Europe.

In 2018 WB6 leaders decided to align with EU's environmental strategy adopting the 2030 goals which are focused on greenhouse emissions reduction, energy efficiency improvement and renewable energy resources inclusion. However, as long as the Energy Community lack oversight and regulation systems WB6 governments have no motivation to avoid delay since they lack the instruments to track performance on soft policies controlling regional energy markets. Taking into account that the related cost will be increased in the future if WB6 take no immediate action, the path to sustainability seems to be long, difficult and complicated. (Bozoudi, 2021)²⁸

In this direction, EU established the "EU support to the Western Balkans Six Chamber Investment Forum", which is concentrating on assisting SMEs in the Balkan area to

²⁸ Bozoudi, M. (2021). Soft Measures for Energy Market Reform in the Western Balkans. In M. Mathioulakis, Aspects of the Energy Union: Application and Effects of European Energy Policies in SE Europe and Eastern Mediterranean (pp. 141-158). Cham, Switzerland: Palgrave Macmillan.

globalize their activities through making financial sources more accessible, while promoting research and innovation. The expected benefits of the project are summarized in the following table.

Table 1: Benefits of “EU support to the Western Balkans Six Chamber Investment Forum“

- 1200 SMEs will be reached with trade promotion activities
- 800 SMEs will receive individual, tailor-made support to look for business and funding opportunities across borders
- 3 policy dialogues with 150-300 business community representatives
- 3 business surveys and 6 studies to identify the obstacles in cross-border cooperation
- 1 on-line toolbox with the information on market access in the region
- 3 joint participations of SMEs from the region in international fairs or business events
- 3 investment conferences to promote foreign investments in the region
- 1 market intelligence data base supporting SME internationalization
- 60 SMEs will be supported to apply to EU funds
- 2 EUROCHAMBERS academies will be organized on EU accession process and topics of interest for regional cooperation
- 6 business initiatives and inputs from WB6 CIF will be submitted to REA governance structures
- 18 seminars on the benefits of regional economic integration
- 3 B2B and B2F events
- 18 seminars to support SMEs in yielding the benefits of regional cooperation

The main goal of EU’s strategy is surely the convergence not only for WB6 but for the entire region of Balkans and Eastern Europe. Besides, Covid-19 pandemic has led to fear and

uncertainty. Thus, financial support from the EU has to increase significantly if the Western Balkans are to achieve economic convergence. (Milatović & Sanfey, 2020)²⁹

The current allocation is shown in the following figure which indicates the differences of budgeting between WB6 and other Balkan countries.

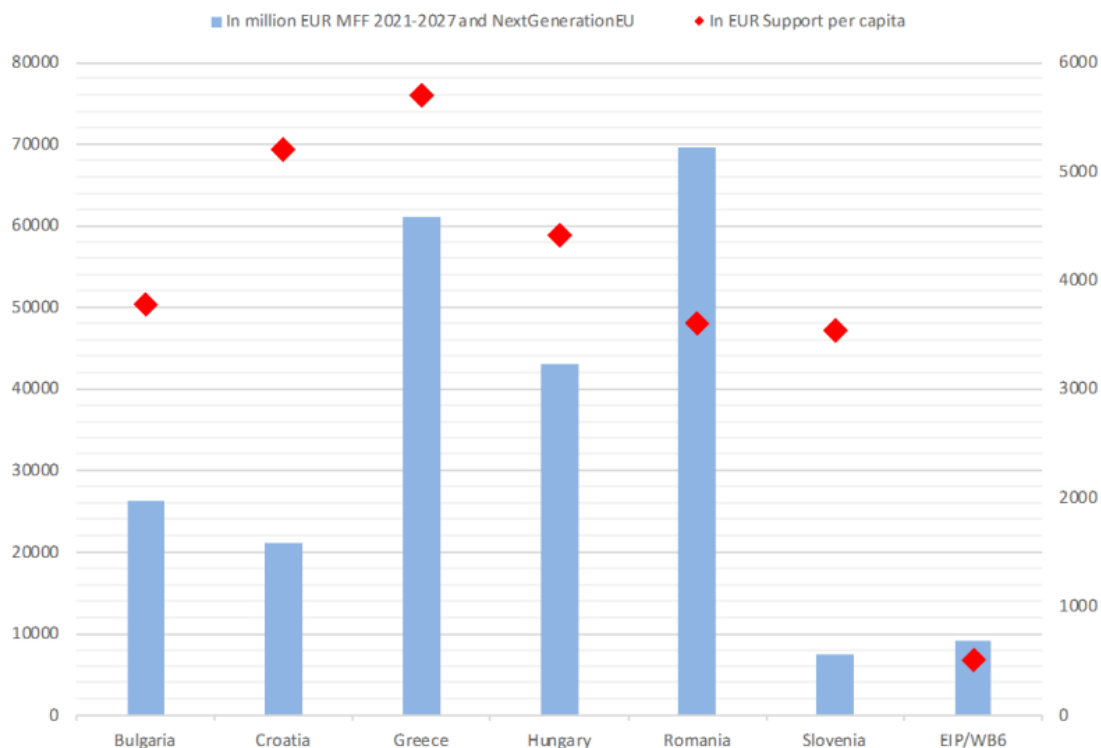


Figure 22: EU budgetary allocations planned for Southeast EU MS and WB6 (EIP) (Bartlett, Bonomi, & Uvalic, 2022)³⁰

5.4 The current energy crisis

Last but not least we have to take into account the current crisis, which, although having a political rather than an energy background, threatens the European continents in terms of

²⁹ Milatović, J., & Sanfey, P. (2020). Are Yugoslav successor states on the path to sustainable market economies? In A. O., A. Bennett, D. Madden, & A. Merdžanović, *The Legacy of Yugoslavia: Politics, Economics and Society in the Modern Balkans* (pp. 191-207). I. P. Tauris: London.

³⁰ Bartlett, W., Bonomi, M., & Uvalic, M. (2022). *The Economic and Investment Plan for the Western Balkans: assessing the possible economic, social and environmental impact of the proposed Flagship projects*. Brussels: European Parliament.

energy security. The global community is in the midst of a new energy crisis, this time centered on Eastern Europe. Of course, the pressures on the market have been intense throughout the last period, yet the invasion of Russia on Ukrainian territory, acted as an accelerator. (International Energy Agency, 2022)

Russia is seeking to consolidate its position on the geopolitical map and advance its political agenda by reducing the amount of energy it makes available on the global market, thereby creating significant problems in the supply chain. From September 2022 onwards, Russian gas deliveries to the European Union have fallen by 80% compared to recent years. This fact imposed intense pressure on European and global natural gas balances. Especially in the winter months, when the demand almost doubles, the problem becomes even more intense. The figure below shows the composition of the energy supply for last winter and, accordingly, the substitution options for Russian gas, which represents 20% of the total gas consumed in Europe. (International Energy Agency, 2022)

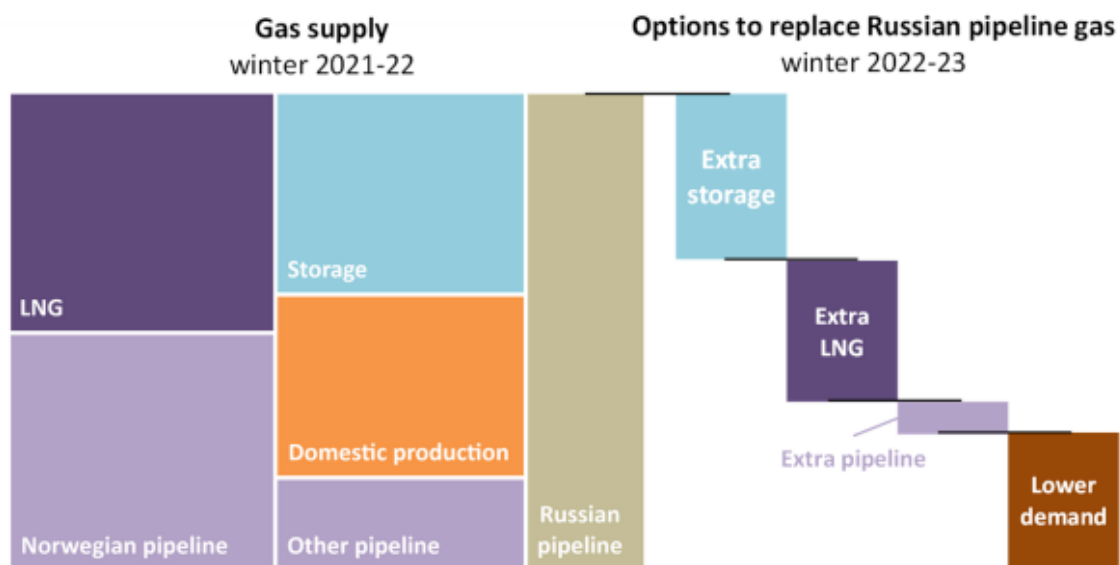


Figure 23: Russian gas replacement

At the beginning of October 2022, the natural gas storage facilities of the E.U. presented an extremely high occupancy rate of 90%. This fact, combined with the reduction in demand and the supply of the network from sources other than Russia, guaranteed energy security in the EU. In the coming years even greater pressure is expected, as long as the conflict between

Russia and the West continues. In any case, however, it is a multi-layered relationship, a war of balances (beyond the actual war). Russia unilaterally increases and decreases the flow of natural gas, the E.U. bans the import of Russian coal countries such as the USA and the United Kingdom impose severe restrictions on oil imports. For now, of course, Russian oil production and corresponding exports still remain at pre-war levels.

We should not, however, put all the blame on the Russian invasion, in the sense that the signs of the coming crisis appeared earlier, as early as February 2022. The effort to immediately restore to the pre-pandemic levels brought the supply chains to their limits, both for fuel and in general, while the situation was worsened by the weather conditions. An aggravating factor in the gas market was Gazprom's delay in filling its European "tanks" in the third quarter of 2021, a delay later linked to the invasion of Ukraine.

Chapter 6: Conclusions

Energy crises are certainly not a 21st century phenomenon, as the entire post-war era is characterized by periods of intense uncertainty in the energy sector. The current crisis, however, is quite different, in the sense that the planet is already in a borderline situation. The global community has to cope with a wide range of issues so as to ensure energy democracy and security. Otherwise, the situation might become irreversible.

The Western Balkans have been on the EU path for more than twenty years now. Their European perspectives took a new turn with Russia's aggression against Ukraine. The current war in Ukraine has forced Europeans to keep the lights on through adopting a far more strategic approach to their energy security.

Taking into consideration the geographical location for the WB6 countries, the region is crucial to the EU in terms of stability, security, trade and transit routes. There is a crucial need to build and strengthen more diverse and resilient energy relationships. The EU should not give up on enlargement. Involving the Western Balkans in high-level political dialogues and in the EU security is seen as very important. There is a crucial need to build and strengthen more diverse and resilient energy relationships. The EU is reluctant to enlarge, and the Western Balkan countries are reluctant to reform. The EU must seize this newfound geopolitical urgency to accelerate the six Western Balkan State's accession without suggesting an alternative to enlargement. There are many challenges that both sides will face through this integration but the risk of non-enlargement is real.

It is very clear also to us that the advantages of an EU expansion and enlargement are impressive. The expansion of the Single Market increases competitiveness and makes single market even stronger.

Quoting President's Ursula von der Leyen's statement "Enlargement is also an investment in our security. In times where we see the rules-based international order increasingly called into question, of course a larger and stronger European Union gives us a stronger voice in the world."

In order to cope with the energy crisis, the decarbonization of power systems in the Western Balkan countries should be accelerated. It will help save money and secure a stable and

affordable power system. This will definitely help to achieve the 2050 climate neutrality goal.

The current study focuses on the “sensitive” region of Western Balkans, attempting to impose a holistic approach in the need of co-operation between WB6 and EU. The results demonstrate that in an ever-changing world strategies cannot remain stable. Thus, the above co-operation has not only to be strong, but also to be continuous and adaptable, so as to close the gap and improve the energy profile of the region as a whole.

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Appendix I: Sofia Declaration Conclusions

1. The EU welcomes the shared commitment of the Western Balkans partners to European values and principles, and to the vision of a strong, stable and united Europe, underpinned by our historic, cultural and geographic ties and by our mutual political, security and economic interests.
2. Recalling the Thessaloniki Summit of 2003, the EU reaffirms its unequivocal support for the European perspective of the Western Balkans. Building on the progress achieved so far, the Western Balkans partners have recommitted to the European perspective as their firm strategic choice, to reinforcing their efforts and mutual support. The credibility of these efforts depends on clear public communication.
3. The EU is determined to strengthen and intensify its engagement at all levels to support the region's political, economic and social transformation, including through increased assistance based on tangible progress in the rule of law, as well as in socio-economic reforms, by the Western Balkans partners.
4. The EU welcomes the Western Balkans partners commitment to the primacy of democracy and the rule of law, especially the fight against corruption and organised crime, good governance, as well as respect for human rights and rights of persons belonging to minorities. Their effective implementation of reforms rests on these foundations. Civil society and independent media play a crucial role in the process of democratisation.
5. The EU supports the Western Balkans partners pledge to continue strengthening good neighbourly relations, regional stability and mutual cooperation. This includes in particular finding and implementing definitive, inclusive and binding solutions for their bilateral disputes rooted in the legacy of the past and devoting additional efforts to reconciliation.
6. Constructing a dense web of connections and opportunities within the region and with the EU is vital for bringing our citizens and economies closer together, and for enhancing

political stability, economic prosperity, cultural and social development. Building on progress made, including through regional initiatives, we pledge to enhance substantially connectivity in all its dimensions: transport, energy, digital, economic and human.

7. The EU agrees to promote a market- and investment-friendly environment in the Western Balkans to move faster towards a digital economy and to sustainable and climate-friendly societies in line with the Paris agreement. Energy security will be prioritised, including through improved energy efficiency, better cross-border inter-connections, diversification of sources and routes, as well as a balanced energy mix better integrating renewable energy.
8. Special emphasis will be put toward creating further opportunities for the youth, while ensuring that this contributes to the socio-economic development of the Western Balkans.
9. To that end, the EU welcomes the Western Balkans partners commitment, inter alia, to accelerate the implementation of the acquis under the Energy Community and Transport Community Treaties, to remove all administrative barriers at borders, to complete the Regional Electricity Market and to urgently implement the July 2017 Multiannual Action Plan for the Development of a Regional Economic Area. The EU will continue to support these efforts.
10. The EU and the Western Balkans partners share many security challenges that demand coordinated individual and collective action. When we work together, we are able to address these challenges effectively. Our cooperation in stemming illegal migration flows has demonstrated its value and will be developed further.
11. Countering terrorism and extremism, including financing, radicalisation and the return of foreign terrorist fighters require our increased cooperation.
12. The EU and the Western Balkans partners acknowledge that results in fighting corruption and organised crime are essential for the region's political and socio-economic transformation and also for regional stability and security, which are in the best interest of their citizens. The EU welcomes their commitment to take resolute action, in

cooperation with the EU and with each other, against human trafficking, drug cultivation, and smuggling of human beings, drugs and arms.

13. The EU welcomes the contribution of the Western Balkans partners to its Common Foreign and Security Policy (CFSP) in all its aspects and expects a progressive deepening of cooperation in this area, especially an enhanced level of alignment, notably on issues where major common interests are at stake.
14. Disinformation and other hybrid activities will be fought together through greater collaboration in resilience, cyber security and strategic communication.
15. To accelerate improvement in the lives of our citizens in the areas of connectivity and security in view of the European perspective of the Western Balkans, today, drawing on the relevant aspects of the Commission's Communication adopted on 6 February 2018, the EU launched a Sofia Priority Agenda for the EU and the Western Balkans, which is annexed to this Declaration.
16. The EU welcomes the intention of Croatia to host an EU-Western Balkans Summit during its Presidency in 2020.
17. We note that our Western Balkans Partners align themselves with the above points.