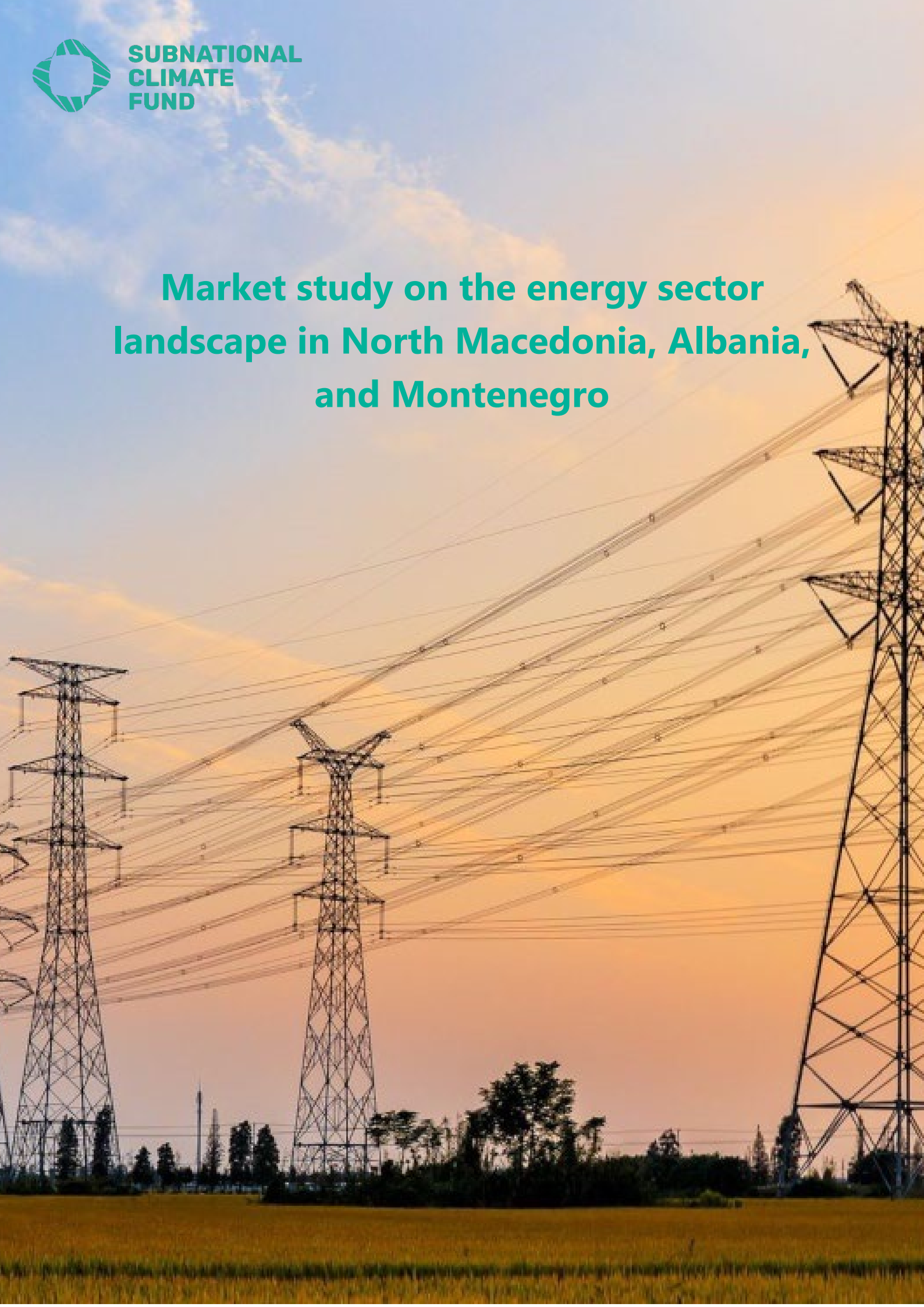
SUBNATIONAL CLIMATE FUND

Market study on the energy sector landscape in North Macedonia, Albania, and Montenegro



Acknowledgements

Authors: This report was written by PricewaterhouseCoopers North Macedonia, PricewaterhouseCoopers Montenegro and PricewaterhouseCoopers Albania.

This report has been financed by the Subnational Climate Fund (SCF), which features a dedicated, grant funded facility for Technical Assistance (TA) that provides technical support to stakeholders in identifying and strengthening investment proposals for the fund.

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The Governments of the three jurisdictions (North Macedonia, Montenegro and Albania) have adopted legislation in line with the EU regulation and have taken serious commitments to battle climate change and promote green economy and technologies. However, there is a lack of specific local governmental initiatives supporting individuals, SMEs and others in the implementation of green projects which may contribute towards the goals set by the respective Governments. There is also lack of initiatives for supporting green lenders in the process of financing of green projects.

In any case, each jurisdiction has a legal framework for establishment of companies which may offer green credit lines to third parties. Such framework regulates the establishment of banking and non-banking financial institutions which may offer various credit lines, including ones for financing of green projects, however, there is no framework specifically related to green lenders and the same, as lending alone, green or not green, is govern by the same framework. This framework is then governed and administrated by the local Central Banks or other government agencies, such as Ministry of Finance.

There are no limitations in any of the three jurisdictions of the green projects which lender may finance. Certain green projects are subject to fulfilment of certain regulatory requirements, outside the central bank or ministry of finance but subject to Ministry of Energy for example. Such projects include development of renewable sources power plants, roof photovoltaic power plants and reconstruction of existing buildings for energy efficiency purposes. Green lenders may finance both large scale projects (for ex. large capacity power plants) and smaller scale projects (for ex. roof photovoltaics, energy efficient inputs, such as house renovation or machinery, purchase of EVs etc.). However, in Montenegro financing exceeding certain financial threshold may only be done by banks with much more complex licensing process or were the green lender in this case be a lead or part of a syndicate with local or foreign bank or DFI (eg. KFW, IFC, EBRD etc)

Green products

Investments in green projects is increasing in popularity in all three countries (North Macedonia, Montenegro, and Albania). The rise of green projects is attributed to various factors, such as heightened awareness about environmental concerns and climate change, as well as access to financial aid and technological guidance from the EU and different DFIs, as well as the implementation of the Green Agenda for the Western Balkans. The Green Agenda for the Western Balkans was adopted for the purpose to be inline with the EU ambition to become climate-neutral by 2050, thus the region has also committed to achieving carbon neutrality by 2050, and to aligning with the European Green Deal's key elements.

There are several types of financing available for green initiatives in the region, however most popular are green loans from commercial banks and DFIs and grant financing. Equity financing although present is still in development.

Commercial and Industrial

The energy market of the three jurisdictions has a similar setup. Individual power producers in each country have full right to participate on the energy market, sell the produced electricity to local market participants, as well as export electricity abroad. Additionally, power producers producing energy from renewable energy sources have certain benefits in each jurisdiction, such as purchase of the electricity under preferential prices, priority in the process of connection to the transmission and distribution grid and others.

The development of renewable energy sources power plants has been on the rise in each country due to the worldwide energy crisis. The disruptions to the supply chains and decreased stability affected the production and distribution of energy resources. Subsequently this caused sharp increase in energy prices for household and commercial and industrial users, which is notable in the whole region. Due to this, Government have introduced regulatory reliefs for the development of smaller capacity renewable energy sources projects.

1. Market survey

1.1. Overview of the government position and policies in tackling climate change in each country, including any supporting initiatives for green lenders.

1.1.1. North Macedonia

One of the eight strategic priorities of the Government of North Macedonia is the protection of the environment, green development, the decrease of air pollution and the effect of the climate change.

North Macedonia is a party to the 2015 Paris Agreement and has undertaken serious obligations to reduce emissions and transition towards greener technologies and economy by 2050.

Additionally, the protection of the environment, green and sustainable development is one of the top priorities of the Government of North Macedonia included in the Program for work of the Government of North Macedonia for the period from 2022 to 2024. With the program the Government of North Macedonia states that it will undertake measures for sustainable development based on proper use of the natural resources, control and decrease of the pollution by use of ecological fuels, renewable energy sources, sustainable waste management and others. To achieve these goals, the Government of North Macedonia intends to undertake, *inter alias*, the following steps:

- Adoption of a separate law on industrial emissions and as of 2023 provision of soft credit lines for procurement of equipment and new technologies for decrease of pollution for small, medium and large capacities;
- Introduction of tax exemption for import of green technologies;
- Provision of aid to small and medium enterprises ("**SME**") for their adjustment to new ecological standards;
- Adoption of the Law on Climate Actions which would oblige the institutions to implement decarbonization activities and introduce measurability of the level of decarbonization, especially in the energy and transportation sector, as well as in other sectors which have potential for decrease of greenhouse gases.

The Government of North Macedonia has also adopted an Annual Working Program for 2023, which is based on the above stipulated three-year program. With the annual program the Government of North Macedonia explains which laws it will propose and which bylaws it will adopt for the purposes of achievement of the strategic goals set for 2023. One of those strategic goals is promotion of energy transition, investment in energy efficiency and green development, decrease of air pollution and the effect to the environment.

The Government of North Macedonia has also envisaged undertaking of various specific steps for achieving the above goals and tackling climate change in general with national plans, national strategies, energy strategies and other documents which are prepared and adopted by the Ministry of Environment and Spatial Planning, the Ministry of Economy and other competent authorities.

One of the most important documents in this regard is the Long-Term Strategy for Climate Action with Action Plan adopted by the Government in 2021 (the "**Long Term Strategy**") which includes specific measures to be undertaken by various public sector participants for the purposes of making North Macedonia low carbon economy up to 2050. Such measures comprise, *inter alias*, of:

- Actions to be undertaken in the energy sector (decrease of network losses (both electricity and gas), development of RES power plants and subsidies and preferential tariffs for development of such power plants (including roof photovoltaics), development of gas transmission and distribution network, etc.),
- Improvement of energy efficiency (use of heating pumps, renovation of existing buildings (residential, commercial and public buildings), development of zero-energy buildings, etc.);

- Increase of use of more eco-friendly technologies (categorization of energy consumption of devices, introduction of more advance technologies, etc.);
- Activities in the agriculture and forestry (afforestation, introduction of integral management of wood fires, decrease of N2O emissions by proper management of cow manure, etc.);
- Education of the people on the climate change and the require climate actions (organization of campaigns on energy efficiency, education on the use of central heating systems, campaigns on more frequent use of the railroad transport, use of bikes, e-scooters and similar transportation technologies, introduction of education programs on sustainable energy in the national education system, etc.).

However, there is a lack of real actions undertaken by the Government of North Macedonia for the achievement of any of the above envisaged targets. The Government of North Macedonia has not commenced with granting of any soft credits for purchase of green technologies, nor it has adopted any regulation for granting of tax exemptions for import of green technologies such as equipment for development of renewable energy power plants, electric vehicles or similar. Also, the Government of North Macedonia has not adopted any initiatives for support of SMEs in the process of adjustment to new ecological standards, nor it has introduced any initiatives for supporting of green lenders.

The Government of North Macedonia has undertaken some of the envisaged activities. More specifically, one measure which has been undertaken in the past year is adoption of a law to facilitate the development of photovoltaics on buildings owned or leased by individuals or SMEs. Also, in April 2022 the minister of economy has announced that the Government of North Macedonia will provide subsidies for making homes more energy efficient (replacement of windows, installation of roof photovoltaics etc.).

Therefore, it is clear that the Government of North Macedonia has adopted many policies for the tackling of climate changes, however, it lacks undertaking of specific actions and initiative for achievement of the goals it has envisaged. However, it is expected for more measures to be undertaken in the future, considering that the Long-Term Strategy was only adopted in 2021 and the same should be implemented until 2050.

On more local level, municipalities adopt separate strategies for tackling climate changes. Through the years the municipalities have introduced certain initiatives for individuals aimed towards greener environment. Such initiatives include subsidies for purchase of A/C heating units as substitution for heating on wood, purchase of bikes and e-scooters and other similar initiatives. However, all such initiatives are on a smaller scale and have been targeted solely towards individuals.

Finally, as part of the Long Term Strategy, the Government has envisaged various activities in the direction of education of the population on the effects of the climate change and the actions which should be undertaken for achievement of carbon neutral economy. This included introduction of various campaigns on energy efficiency and green transition, use of more eco-friendly transportation, proper heating and others. Most significantly, the Long Term Strategy envisages introduction of the climate in the national education system by introduction of aspects associated with climate change in the National Education Strategy, adoption of action plan for introduction of climate related studies in the curriculum, etc.

The introduction of the above measures will raise the awareness of the population on the climate and climate change. This as a result should provide increase of the interest of implementation of green projects in North Macedonia and better interest for green lending and financing.

1.1.2. Montenegro

Montenegro is a party to the 2015 Paris Agreement and has accordingly undertaken obligations to reduce emissions and transition towards greener technologies and economy up to 2050.

Montenegro adopted the National Strategy for Sustainable Development to 2030 which, among others, envisage the plans and measures for meeting its sustainable development goals based on proper use of the natural resources, control and decrease of the pollution by use of ecological fuels, renewable energy sources, sustainable waste management, climate change, energy efficiency by 2030. According to the possible solutions

described in the National Strategy, as far as renewable sources are concerned, the existing infrastructure (more specifically the electricity power network and power switches) will have to undergo substantial reconstruction, as well as addition of new overground electrical cables, in order to connect the planned capacity safely. Estimation of construction costs and time necessary for connecting new capacities amounts to EUR 43-72 mil with timeline of 4-12 years.

In order to implement the measures, set out in the National Strategy, the Government of Montenegro plan to achieve at least a 35% reduction in total national greenhouse gas emissions by 2030 compared to 1990 (base year), 40% cut in energy intensity and 27% energy efficiency increase. To that effect, until Montenegro becomes an EU Member, obligations of Montenegro, as a small greenhouse gas emitter are uncertain. Please note that Montenegro is a member of the Convention on Long-Range Transboundary Air Pollution (known as Gothenburg Protocol) which sets out the limits on air pollutant including sulphur dioxide, nitrogen oxide, ammonia and volatile organic compound.

Montenegro adopted the Law on Energy Efficiency in 2014 with subsequent amendments which included provisions of EU Directive 2012/27/EU on energy efficiency, EU Directive 2010/31/EU on building energy characteristics and EU Directive 2010/30/EU on labelling the energy consuming products.

Currently, Montenegro considers changing and adopting the Law on Protection from Negative Impact to the Climate Change. In addition, a climate change related conference was held in May 2023 in Montenegro where it was concluded that Montenegro was determined to undertake all actions necessary to protect the climate change.

1.1.3. Albania

Since the early 1990s, Albania has implemented important structural reforms to promote equitable economic growth and improve governance and public service delivery. The energy sector is a priority sector for the Government. Albania is endowed with a wide variety of energy resources ranging from oil and gas, coal and other fossil fuels, hydropower, natural forest biomass and other renewable energy. To improve the sector production during the last few years, Albania has been working to change its energy efficiency policy by supporting the use of renewable energy sources, making that a part of the country's energy strategy.

In line with global and regional commitments and national priorities, Albania has made progress on climate change mitigation and adaptation. In 2014, the Albanian government established the Inter-Ministerial Working Group on Climate Change (IMWGCC), which coordinates all institutions involved in climate change processes and facilitates the integration of climate change into relevant new and existing policies, programs, and activities. In July 2019, Albania approved a National Climate Change Strategy and the corresponding national mitigation and adaptation plans. Albania has also implemented several mitigation and adaptation projects.

Albania has gone through some changes in the climate legislation as well.

The Law No. 155/2020 "On climate change" was adopted in December 2020, which acts as the UNFCCC implementation law in Albania and covers requirements under the EU Emissions Trading System (ETS) Directive. This law requires all relevant ministries to mainstream climate change mitigation and adaptation issues into their legislation. Albania has adopted several strategies to combat and mitigate climate change, such as Intersectoral Environmental Strategy in 2007, Strategic Document and National Plans for the mitigation of greenhouse gases and for adaptation to climate change in 2019.

Following the national plans to tackle climate change, the Law "On promoting the use of energy from renewable sources" defines support schemes in the form of administratively set feed-in tariffs and the Contract for Difference (CfD). A decision on making all producers of the renewable energy balance responsibility, was adopted on 1 April 2021.

The amendments to the Energy Efficiency Law adopted in March 2021 which transposed Directive 2012/27/EU, are considered as key changes as well. Three implementing by-laws (on local energy efficiency action plans, monitoring and verification platform and scope of application of building requirements) have been drafted. In October 2022, the Government introduced a mandatory 15% energy saving target for the public sector and new measures for households, including a financing scheme for subsidizing the installation of solar water heaters.

The scheme for encouraging the use of solar panels for heating water by household customers aims at subsidising 70% of the cost from the Energy Efficiency Agency. Family customers who wish to apply for the benefit of support for the realisation of the investment must meet the certain criteria, such as: (i) proper registration as a family subscriber with OSHEE/Universal Service Provider, (ii) minimal monthly power consumption of at least 250 kWh, (iii) ownership of the apartment or housing unit and others and others.

Furthermore, Albania was the first contracting party to adopt its National Energy and Climate Plans (NECP). Albania submitted its draft NECP to the Secretariat in July 2021, which provided its formal Recommendations on 17 December 2021. The Albanian Government adopted the NECP on 29 December 2021.

Albania does not have an umbrella policy framework for environmental protection, the recent Environmental Impact Assessment Directive is not always fully enforced. This means that there is also much work ahead, in order to adopt a climate policy consistent with the EU 2030 framework.

The Albanian Government has also approved decision no. 466, dated 03 July 2019 "For the approval of the strategic document and national plans for mitigation of greenhouse gases and adaptation to climate change". This document presents, among others, a range of measures aimed at educating citizens and enhancing the training of the public administration. These measures include:

- Implementing an information policy for end users, such as family members and workers in the private sector/public service. This involves conducting awareness campaigns, providing education and training for energy auditors and housing administrators, and implementing housing energy certification;
- Integrating climate change adaptation into environmental education and raising public awareness about the heightened risk of fires due to climate change;
- Enhancing education, raising awareness, and building human capacities within the institutional framework to address climate change mitigation, adaptation, impact reduction, and early warning.

At this moment, there are no systematic government measures implemented or enforced that effectively improve education and raise awareness on climate change mitigation, adaptation, impact reduction, and early warning. The draft national action plan of the national climate change strategy indicates that limited awareness of climate change among policymakers and the general public hinders the development of a robust national action plan. Climate change policies still receive relatively low priority on the political agenda.

Finally, in Albania there are microcredit financial institutions that provide green loans for consumers who want to improve their living conditions, by investing in apartments, focusing on energy efficiency and energy saving. These financial institutions are Fondi Besa and NOA. In Albania with green loans individuals can finance the following but not limited to insulation of walls, roof and floor windows, doors and insulating glasses, furnace/ gas boiler, heat pumps, lighting, furnace / biomass boiler, solar collectors for hot water, solar photovoltaic.

1.2. Type of licensing and regulatory capital required if one is to set up a greenfield operation to finance green projects in country, across different green asset classes, such as solar panels, electrical vehicles or PPAs.

1.2.1. North Macedonia

In North Macedonia, loan financing, including but not limited to loan financing of green projects, is a business operation that requires licensing. Loan financing of green projects could be provided by banks or non-bank financial companies and both vehicles must obtain an appropriate regulatory license. As a result, if one is to set up a greenfield lending operation to finance green projects in country, across different green asset classes, such as solar panels, electrical vehicles or PPAs, one must obtain at minimum a license a for non-bank financial company There is no need for bank, as the mandate of the lender would be to lend ONLY and not perform full banking services.

Below is a description of the required steps and procedures for licensing of a non-bank financial company (NBFC) in North Macedonia.

Table 1 - Establishment of financial company in North Macedonia

No.	Step	Responsible authority/party	Term	Comment
1.	Payment of regulatory capital by the founder(s).	- The founder(s)	This is the initial action which needs to be undertaken, before submitting the formal licensing request.	The regulatory capital for establishing a financial company is EUR 100,000, which should be paid on a temporary bank account. However, amendments to the Law on Financial Companies are being prepared, under which the regulatory capital of financial companies would be increased to EUR 500,000. The draft amendments are currently in a public discussion process, after which the amendments should be adopted in the Parliament.
2.	Submitting a formal licensing application.	- The founder(s)	Upon finalization of step 1.	The licensing application should be submitted to the Ministry of Finance of Republic of North Macedonia ("**MoF**")**.** The application must be supported with appropriate documentation evidencing the fulfilment of regulatory requirements, such as: • evidence for legitimate origin of funds for the regulatory capital; • evidence for education, experience and fit and proper criteria for the founders and the management of the financial company; • financial activities of the financial company and business plan with projected financial results for the next three years; • internal operating, risk management and AML procedures. The NBFC company would be licensed for the following financial activities: - granting of credits/loans - issuance of credit cards - factoring - issuance of guarantees
3.	Issuance of license.	- MoF	Upon finalization of step 2.	The MoF should issue the license in 60 days as from the delivery of all supporting documentation to the license application and any additional documentation that might be requested by the MoF.

4.	Registration of incorporation.	- The authorized representative of the financial company; - The Central Registry of Republic of North Macedonia ("**North Macedonia Central Registry**").	Upon finalization of step 3.	After obtaining the license from the MoF, the director of the Financial Company should submit request to the Macedonia Central Registry for registration of the incorporation of the Financial Company, supported with the company's Articles of Association and information for the appointed management. The North Macedonia Central Registry issues formal Resolution for incorporation. The Financial Company could be organized and incorporated as a Limited Liability Company or a Joint Stock Company. The Limited Liability Company is the dominant form in practice.
5.	Start with operations.	- The Financial Company	Upon finalization of step 4.	The Financial Company must start with performing the operations for which it has received the license, within 6 months as from finalizing Step 4 above at the latest. Otherwise, the MoF shall revoke its license.

1.2.2. Montenegro

In Montenegro, any loan financing including financing of the green projects, may be carried out either under: (i) the Law on Credit Institutions aka Banks, or (ii) the Law on Financial Leasing, Factoring, Buy Out of Claims, Micro-crediting, and Loan-guarantee Activities aka Non-Bank Financial Companies ("**Micro-crediting Law**").

We shall set out below the main legal requirements under both laws necessary for a credit-led financial company to carry out lending for the purpose of financing green projects in Montenegro, across different green asset classes, such as solar panels or PPAs.

Please note that the Law on Credit Institutions is a new law that came into effect on 1 January 2022 which replaced the Law on Banks. The Law on Credit Institutions is harmonized with EU Directives regulating credit institutions, such as Banks but is not tested in practice long enough by the Central Bank of Montenegro ("**Montenegro Central Bank**") due to its recent enactment. The Law on Credit Institutions contains detailed provisions which apply to banks and credit institutions. Requirements are, in fact, similar, if not the same, for both the banks and other credit institutions (e.g. risk management, maintaining the capital, financial and management obligations, affiliated companies and qualified participation, etc.).

Credit institution may be established either as a bank with its seat in Montenegro, or branch company of credit institution with its seat in EU member country or with seat in third country which carries out operations in Montenegro. Please note that, at the moment, the provisions of the Law on Credit Institutions are applicable to banks with its seat in Montenegro only, while for the other types of credit institutions, provisions of the law shall apply when Montenegro becomes an EU State Member.

Therefore, for the purpose of this exercise, we shall hereunder outline only the main requirements for establishing a bank and a Non-Bank Financial company in Montenegro.

For an institution that would seek to only lend, it would be advisable to apply for a Non-Bank Financial Institutions under the Micro -credit law for start. In due time, the institution can update its license or transfer its license in Montenegro as a branch company of a credit institution that sits in EU member country.

However, while the Micro-credit Law would allow an institution to start its lending operation, its lending product would be subject to the lending cap that's governed by the Micro-credit law, as summarized below:

- purpose loan approved to natural person up to EUR 20,000,

- purpose loan approved to entrepreneurs up to EUR 30,000, and
- purpose or non-purpose loan approved to SMEs up to EUR 50,000

Having said the above, please note that regarding the Micro-crediting Law, obtaining the license is a bit simpler compared to the process for obtaining a bank license having in mind all requirements set out by the Law on Credit Institution. However, the main disadvantage of micro-crediting company is a rather low limit in loan financing as disrobed above.

Set out below are the required steps and procedures for licensing of a credit institution under the Micro -credit Law and Law on Credit Institution, respectively.

Table 2 - Establishment of financing institution under the Micro-Crediting Law in Montenegro

No.	Step	Responsible authority/party	Term	Comment
1.	Services for which the license could be obtained include: - financial leasing, - factoring, - buy- out of claims from banks and other entities, save from claims arising from factoring, - micro-crediting, and - loan-guarantee activities.	- The founder(s)	/	The company for carrying out any of the services set out by the Micro-Crediting Law could be organized and incorporated as a limited liability company or a joint stock company. The limited liability company is the dominant form in practice. Exception is a company providing loan-guarantee activities that could be performed only by the loan-guarantee fund established in the form of a joint stock company. We shall set out hereto only certain specifics the Micro-crediting Law envisaged for provision of micro-crediting services. Namely, micro-crediting services include granting loans to natural person, entrepreneurs and to SMEs. Micro-loan is defined as: - purpose loan approved to natural person up to EUR 20,000, - purpose loan approved to entrepreneurs up to EUR 30,000, and - purpose or non-purpose loan approved to SMEs up to EUR 50,000. Micro-crediting company may carry out the following activities: - approved micro-credit loans from its own or borrowed funds, - issue guarantees up to EUR 50,000, and - consulting services.
2.	Payment of regulatory capital by the founder(s).	- The founder(s)	This is the initial action which needs to be undertaken, before submitting the formal licensing request.	The minimum regulatory capital for establishing financial leasing or factoring or micro-crediting company amounts to EUR 125,000 paid up prior to the registration in the Montenegro Central Registry. The minimum regulatory capital for establishing a company for buy-out of claims is EUR 200,000. The minimum regulatory capital for loan-guarantee activities is EUR 1,000,000.
3.	Submitting a formal licensing application.	- The founder(s)	Upon finalization of steps above.	The licensing application should be submitted to the Montenegro Central Bank**.** The application must be supported with appropriate documentation evidencing the fulfilment of regulatory requirements, such as: • foundation decision or foundation agreement,

				• draft Articles of Association, • statement of the founder on payment of regulatory capital, • proposed management structure • business plan for the next 3 years, etc.
4.	Issuance of license.	- Central Bank	Upon finalization of step above.	The Central Bank should issue the license within 90 days as from the delivery of all supporting documentation to the license application and any additional documentation that might be requested by the Central Bank.
5.	Registration of incorporation.	- The authorized representative of the Company; - the Montenegro Central Registry	Upon finalization of steps above.	After obtaining the license from the Central Bank, the director of the company should submit request to the Montenegro Central Registry for registration of the incorporation of the company, supported with the required registration documents. The Montenegro Central Registry issues formal resolution for incorporation.
6.	Start with operations.	- The Company	Upon finalization of step above.	The Company must start with performing the operations for which it has received the license, within 6 months as from the date of obtaining the license from the Montenegro Central Bank. Otherwise, the Montenegro Central Bank shall revoke its license.

Table 3 - Establishment of bank/credit institution in Montenegro

No.	Step	Responsible authority/party	Term	Comment
1.	Foundation decision/agreement.	- The founder(s)	This is the initial action which needs to be undertaken, before submitting the formal licensing request.	Bank may be established as a joint stock company with public offering or without public offering of shares. In case of public offering, implementing the public call for subscription and payment of shares must be carried out. In case of simultaneous foundation of a bank purchasing all shares at the moment of formation can be done without issuing a public call for subscription and payment of shares. Documents necessary for establishment of the bank are, among others, foundation decision/agreement, draft articles of association, and other documents required by the law.
2.	Approval for issuance of shares by the Securities and Exchange Commission.	- The founder(s)	Along with step 1	The founder(s) must obtain a decision from the Securities and Exchange Commission on issuance of shares. The Securities and Exchange Commission is also a body in charge of approving the prospectus prior to issuance of shares. There are certain exceptions when the prospectus does not have to be published.
3.	Payment of regulatory capital by the founder(s).	- The founder(s)	Along with step 1	Upon signing of the foundation agreement, the regulatory capital for establishing a bank of EUR 7,500,000, should be paid on a temporary bank account prior to the registration in the Central

				Registry of Republic of Montenegro ("**Montenegro Central Registry**").
4.	Submitting a formal licensing application.	- The founder(s)	Upon finalization of steps above.	Founder(s) must submit request for issuance of bank license with all documents set out by the Law on Credit Institution, among which are: 1) authorisation for the person who the Central Bank will cooperate with in the procedure for considering applications for granting of the license; 2) application for granting authorisation to acquire qualifying holding for persons who acquire qualifying holding in the credit institution, accompanied by the required documentation; 3) application for granting the authorisation for the nominated members of the supervisory board, along with the required documentation; 4) application for granting the authorisation to the nominated chairperson and members of the management board; 5) If the credit institution also intends to provide other financial services, in addition to banking services, it shall indicate in the application for granting the license the types of financial services which the credit institution intends to provide; 6) If the credit institution intends to provide additional financial services it shall submit to the Central Bank the documentation evidencing meeting of the conditions for the provision of such services set by the law, etc. Prior to granting the license, the Central Bank shall consult and exchange information with the competent authority of an EU Member State, particularly with regard to the suitability of the acquirers of qualifying holding and their reputation, appropriate skills and experience of the members of management bodies within the same group.
5.	Issuance of license.	- Montenegro Central Bank	Upon finalization of step 4.	The Montenegro Central Bank should issue the license within 180 days as from the delivery of all supporting documentation to the license application and any additional documentation that might be requested by the Montenegro Central Bank.
6.	Registration of incorporation.	- The authorized representative of the bank; - Montenegro Central Registry.	Upon finalization of steps above.	The request to the Montenegro Central Registry for registration of the incorporation of the bank, supported with the bank's articles of association and all other required documents must be submitted within 60 days from the date of issuance of operation license. The Montenegro Central Registry issues formal Resolution on incorporation.
7.	Start with operations.	- The bank	Upon finalization of steps above.	The bank must start with performing the operations for which it has received the license, within 12 months as from finalizing step 5 above at the latest. Otherwise, the Montenegro Central Bank shall revoke its license.

1.2.3. Albania

In Albania, loan financing, including but not limited to loan financing of green projects, is a business operation that requires licensing. Loan financing of green projects could be provided by banks or non-banking financial companies (NBFC) and both institutions must obtain an appropriate operating license. As a result, it could be concluded that if one is to set up a greenfield operation to finance green projects in a country, across different green asset classes, such as solar panels, electrical vehicles or PPAs, one must obtain a license for establishing a bank or a non-banking financial company.

It is our understanding that a credit-led digital financial platform not focused on providing banking specific services, such as collection of deposits, or more broadly payment services of foreign exchange operations. As a result, we shall focus our analysis on non-banking financial companies, with respect to licensing and regulatory capital requirements. Namely, the process for licensing of non-banking financial companies, depending on the type, through which a company could provide credit-led financial services, is a lot simpler and more feasible, compared to the process for obtaining a bank license. Also, the ongoing supervision and compliance efforts for non-banking financial companies are significantly less cumbersome.

In Albania there are two types of non-banking financial companies that could perform crediting operations:

- all-lending-type financial company; and
- micro-credit financial company.

Just as the name suggests, all-lending-type financial company is a non-banking lending company that can provide all types of loans, including consumer and business loans, special purpose loans and non-purpose loans, secured and non-secured loans and most importantly, loans without limitation of the amount of the loan principle. This type of non-banking financial company provides a lot of flexibility for performing crediting operations, however, has greater requirements for minimum initial capital of ALL 100,000,000 (approx. EUR 878,000).

On the other hand, micro-credit financial company should simultaneously meet the following criteria:

- at least 50 percent of the loan portfolio to consist of microloans.
- a microloan is a loan with principal amount not greater than 600,000 ALL (approx. EUR 5,330 EUR).

The minimum initial capital required for the microcredit financial company is ALL 15,000,000 (approx. EUR 131,700).

Both above types of non-banking financial companies are licensed and supervised by the Albania Central Bank and the licensing procedure in described in Table 4 below.

Table 4 - Establishment of non-banking financial company in Albania

No.	Step	Responsible authority/party	Term	Comment
1.	Establishment of the legal entity	- The founder (s) / appointed representative of the legal entity; - The National Business Center of Albania ("**NBC**").	The first step is the establishment of the legal entity and its registration at NBC.	In order to establish a legal entity (limited liability company or branch of the foreign company) the following documents for the **founder – legal entity** are required: - The Memorandum of Association, MOA; - The current status of the founder; - A document certifying the unique identification number;

				- A Confirmation certifying that the company is not under bankruptcy or liquidation procedure; - The balance sheet for the last business year of the company; For the newly established legal entity, the following should be submitted: - The Memorandum of Association (MOA); - Authorization for the nomination of the person, entitled to perform the registration of the new entity on behalf of the founder. Upon submission of the full documentation, it should take up to a couple days to have the confirmation of the registration from the NBC. Upon the registration with the NBC, the newly established company will obtain the unique identification business number. From that moment, the company will be simultaneously registered with the tax and the labour office. The company's legal representative would be able to open a bank account and get the local domain name.
2.	Payment of regulatory capital by the founder(s).	- The founder(s). - -	This is the initial action which needs to be undertaken, before submitting the formal licensing request.	The capital requirements for all-lending-type financial company and micro-credit financial company are presented above.
3.	Submitting a formal licensing application.	- The founder(s).	Upon finalization of step 1.	The licensing application should be submitted to the Albania Central Bank**.** The licensing application should be accompanied with the registration certificate for the establishment of the new company and the memorandum of association of the company. The application must be supported with appropriate documentation evidencing the fulfilment of regulatory requirements, as specified in the applicable regulations, such as: ● evidence for legitimate origin of funds for the initial capital; ● evidence for the founders and the management that they are compliant with the law; (i.e.: they are not under criminal investigation, have not been convicted by a court for committing a criminal offense, etc.);

				• evidence for the education and experience for the founders and the management of the non-banking financial company; • information for the planned financial activities of the financial company and its business plan with projected financial results for the next three years; • internal by-laws acts, risk management and AML procedures.
4.	Issuance of license.	- Albania Central Bank	Upon finalization of step 2.	1. The Albania Central Bank should issue the license within **3 (three) months** from the delivery of all supporting documentation to the license application and any additional documentation that might be requested by them. 2. When the submitted documentation is incomplete and/or fails to meet the requirements, the Albania Central Bank shall notify the applicant of the same, within **30 (thirty) business days**. 3. The Albania Central Bank shall suspend the licensing procedure if the required documents and information are not provided by the applicant financial company within **6 (six) months** from the submission of the initial application.
5.	Start with operations.	- The Financial Institution.	Upon finalization of step 4.	The financial company must start with performing the operations for which it has received the license, **within 6 months** from licensing.

For reference, the license for establishing a bank is obtained from the Central Bank of the Republic of Albania ("Albania Central Bank"). The regulatory capital required for establishing a bank is ALL 1.000.000.000 (one billion) (approx. EUR 8,772,000. A bank in the Republic of Albania is a legal entity with a registered seat in the territory of the country, who carries out banking and other activities in accordance with the law. Its activity includes the receipt of monetary deposits or other repayable funds from the public, and their use to grant credits or placements for its own account.

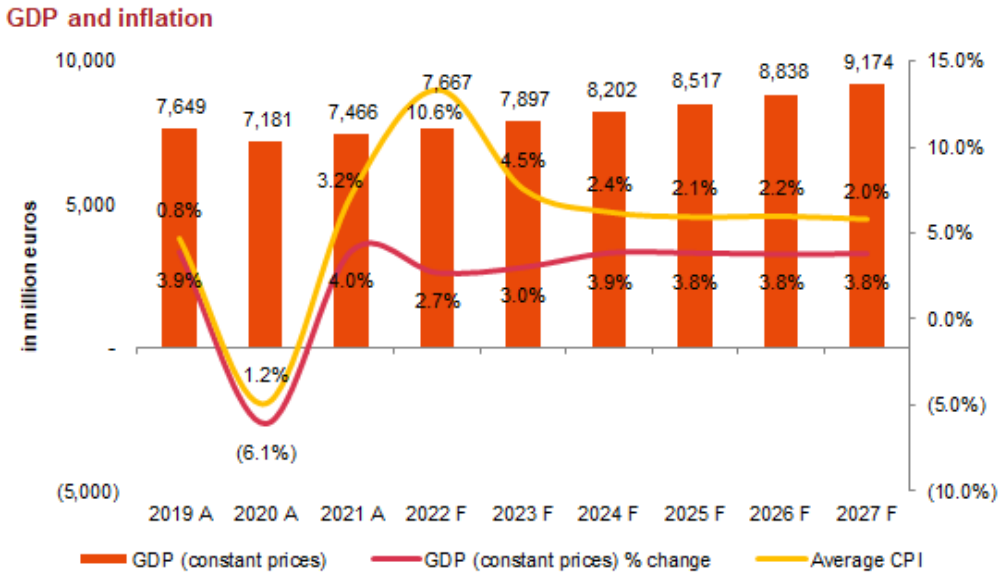
1.3. Overview of the countries' energy mix and dependencies, and their plans to adopt and transition to climate friendly sources, including a general overview of the market structure, including regulated authorities and key stakeholders.

1.3.1. North Macedonia

1.3.1.1. Macroeconomic overview of the country

North Macedonia has a relatively small and open economy that is heavily reliant on exports and foreign investment. The country's gross domestic product (GDP) in 2022 was EUR 13 billion.

Figure 1 GDP and Inflation in North Macedonia



Source: Source: IMF, State Statistical Office (SSO)

After the large drop in 2020 real GDP experienced a rebound reaching 4.0% in 2021 and 2.1% in 2022. According to IMF the improved economic activity was supported by domestic consumption, reflecting improved mobility, returning diaspora and continued policy support.

In 2023, real GDP growth is anticipated to remain modest. The projected real GDP change is 3%. Along with rising uncertainty and tighter financing conditions, higher commodity prices have severely reduced consumer spending power and will consequently diminish domestic demand. Exports are anticipated to be hampered by decreased external demand from trading partners and a prolonging of the supply disruptions around the world.

From 2006 through 2023, Macedonia's core inflation rate averaged 2.47%, with all-time highs of 17.90% in October 2022. The average inflation for 2022 was 14.2%. Projected inflation for North Macedonia for 2023 as per the IMF is at 9.2%, while the projected inflation from the central bank is between 8-9%.

In 2022, in comparison with 2021, the Consumer Price Index increased by 14.2%, while the Retail Price Index increased by 12.6%. Greatest increase of indices was registered in the following groups: Food and non-alcoholic beverages by 20.9%, Transport by 19.5%, Restaurants and Housing, water, electricity, gas and other fuels by 13.3% (according to the State Statistical Office-SSO).

North Macedonia is an EU candidate country, WTO member since 2003, and has become a NATO member in March 2020. The country is signatory of three multilateral Free Trade Agreements: SAA, EFTA and CEFTA. The official currency is the Macedonian denar (MKD).

1.3.1.2. Electricity market structure and key stakeholders

The energy sector in North Macedonia is monitored by the Energy and Water Service Regulatory Commission (ERC) with the aim to strengthen the efficiency, competitiveness, and transparency of the energy markets and to detect irregularities, distortion of competition and forms of unfair competition on the market, as well as other activities on the energy markets contrary to the laws, other regulations and the obligations established in the licenses for performing energy activities. The creation of the Energy Regulatory Commission was one of the most significant changes the Republic of North Macedonia made in the energy industry. According to the Law on Energy published in the Official Gazette of the Republic of Macedonia No. 94/02, the Energy Regulation Commission of the Republic of North Macedonia was established in 2002.

Detailed market structure of the energy sector is presented is presented on Figure 2, and it mainly consists of the following:

Generation- North Macedonia's electricity production generally relies on Thermal Power Plants utilizing lignite, mazut (fuel oil) and natural gas as prime source of energy. Electricity generation in North Macedonia is predominated by the state company AD ESM Skopje, whose production heavily relies on thermal power plants powered by coal.The remained of the power supply is sourced from CCPP TE-TO AD Skopje, EVN Elektrani and more other smaller renewable energy electricity producers (HEC Mavrovo, HEC Spilje, HEC Globocica, HEC Sveta Petka, VEC Bogdanci). In 2021, there are 222 photovoltaic power plants with total installed capacity of 45MW. Photovoltaic power plants represent 3.1% from the total production of electricity in North Macedonia with 51,46 GWh produced in 2021. From the total number, 101 photovoltaic power plants are users of preferential tariff whereas the remaining 121 photovoltaic power plants are selling the produced electricity on the electricity market.

Wholesale- The wholesale market is open and National Electricity Market Operator acts as the operator of the organised electricity market. Wholesale market includes bilateral contract market, balance market (functions from 01/2021) & organized market is being established.

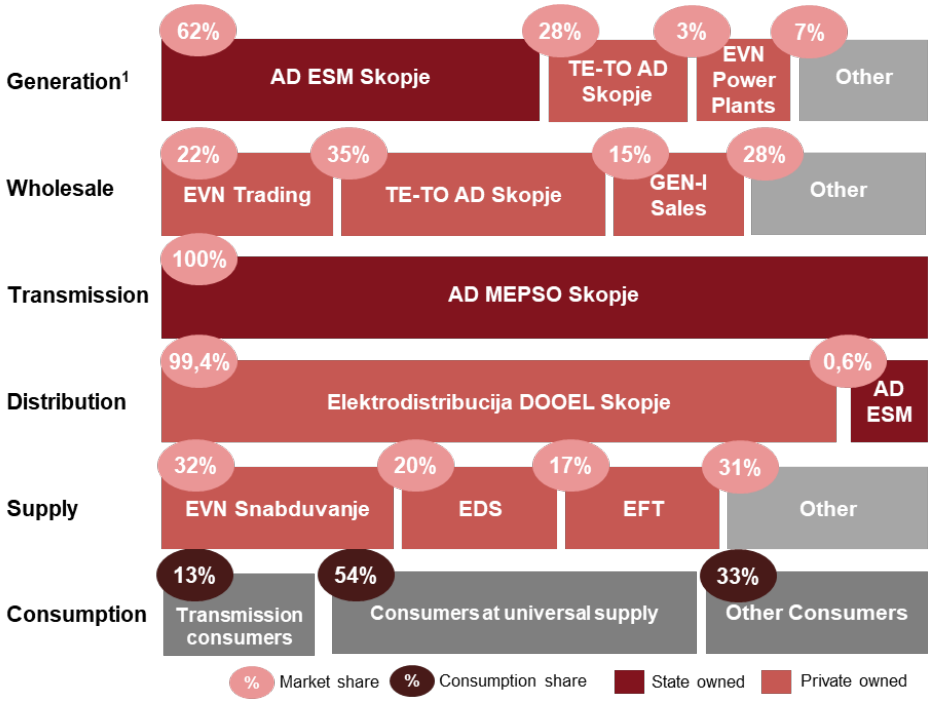
Transmission- Electricity transmission is performed by one legal entity, AD MEPSO Skopje, which is the unbundled sole operator of the electricity transmission system. It is a state-owned joint stock company.

Distribution- Distribution system operator Elektrodistribucija takes over this electricity from the TSO and through its distribution system, branched all over the country, delivers it to the final consumers. The Electricity Distribution Network of Elektrodistribucija accounts in overall 876,397 connection points, whereby, 875,253 connection points are with low voltage, and the remaining of 1,144 refer to connection points with medium voltage.

Supply- During 2021, there were 18 active suppliers of electricity that supplied large and small consumers on the free retail market with electricity, that is, in 2021 there were two more active suppliers than in 2020

Consumption- In 2021, there is an increase in electricity consumption compared to 2020 and an increase in consumption compared to 2019. In terms of net consumption, in 2021, compared to 2020, the increase is 6.01%, while compared to 2019, there is an increase of 5.54%.

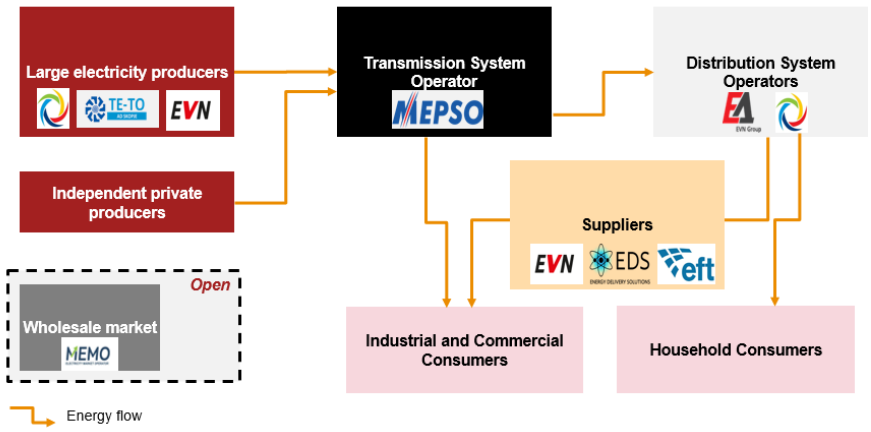
Figure 2 North Macedonia- Electricity market overview (year 2021)



Source: ERC 2021 annual report, PwC Analysis

The wholesale and retail markets in North Macedonia are open, whereas retail prices are deregulated, except for the universal service supplier EVN. Although organized wholesale market is not yet developed, MEMO (the national electricity market operator owned by AD MEPSO) has been nominated as the operator of the organized electricity market with an obligation to establish the day-ahead and intra-day electricity markets and to couple day-ahead market with neighbouring countries. The retail market is still in process of liberalization with regulated market still existing and serviced by EVN as sole supplier. Free market accounts for 52% of total electricity consumption with a significant growth in last 3 years and same applies for supplier switching rates which is a good indicator of market openness.

Figure 3 Electricity market interaction in North Macedonia



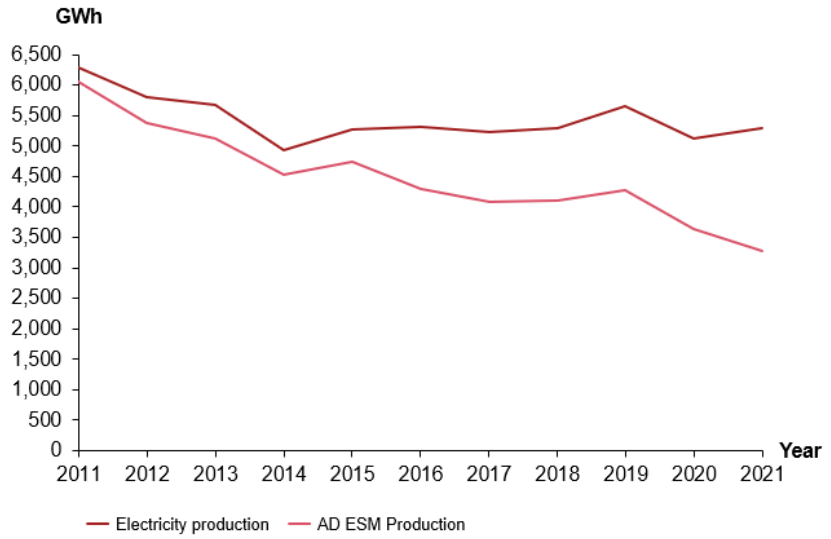
Source: Energy Community Secretariat, PwC analysis

1.3.1.3. Electricity market production in North Macedonia

Domestic electricity production makes up between 65-75% of total consumption and is primarily dependent on coal (80% of total electricity production comes from coal and 20% from hydro plants), with imports accounting for 30% of total electricity consumption. The production of electricity from natural gas thermal power plants has increased significantly over the past few years, while the production from coal-fired thermal power plants has decreased. The Republic of North Macedonia is import – dependable country in terms of electricity requirements. In 2021, the net import of electricity is 33,15 %, while in 2020 0 it was 31,38 % of the overall gross consumption.

AD ESM as the largest producer on the Macedonian market, over the last ten years constantly marks a decrease in production. The reduction in electricity production is noticed in both, hydro power plants and thermal powerplants.

Figure 4 Electricity production 2011-2021 (GWh)



Source: ERC 2021 annual report, PwC Analysis

The total installed capacity of power plants in 2021, is 2,117 MW. In the total installed capacity, thermal power plants on coal have the largest share with 52%, followed by hydro power plants with 33%, cogeneration plants for the production of electricity, and district heating with 11 %, and the rest with 4 %. In 2021, new electricity producers with an installed capacity of 14,2 MW were connected to the electric power system. The majority of the newly constructed power plants are either small hydroelectric facilities with an installed capacity of 0.2 MW or solar facilities with an installed capacity of 14 MW.

Figure 5 Installed capacity per technology in North Macedonia

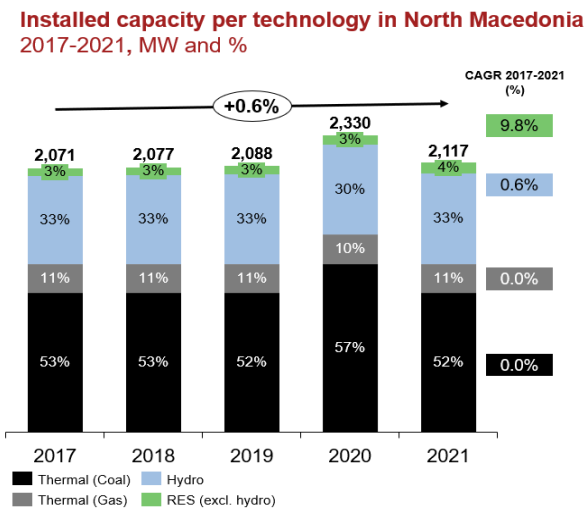
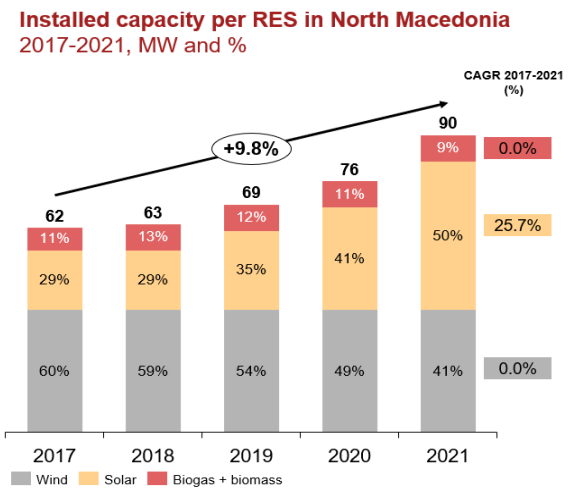


Figure 6 Installed capacity per RES in North Macedonia



Source: ERC 2021 annual report, PwC Analysis

As previously mentioned, domestic electricity generation is predominantly based on coal. The electricity generation from coal in 2021 amounted 40%, followed by gas 28%, then hydro 27% and 4% from RES excluding hydro. With regards to the production from RES, wind marks a production of 49%, followed by biogas 26% and solar 25%. The reduction of production in the coal power plants is due to the decreased electricity production from the thermal power plants in REK Bitola. The production of electricity from renewable energy sources is unstable on an annual level, foremost depending on the meteorology conditions. In the total production of electricity for 2021, renewable energy sources have a share of 31.4 %, indicating an increase of 14.72 % compared to 2020, while the production of electricity by thermal power plants has a share of 68.54 % which is 17.12 % lower compared to 2020.

Figure 7 Electricity generation per type in North Macedonia

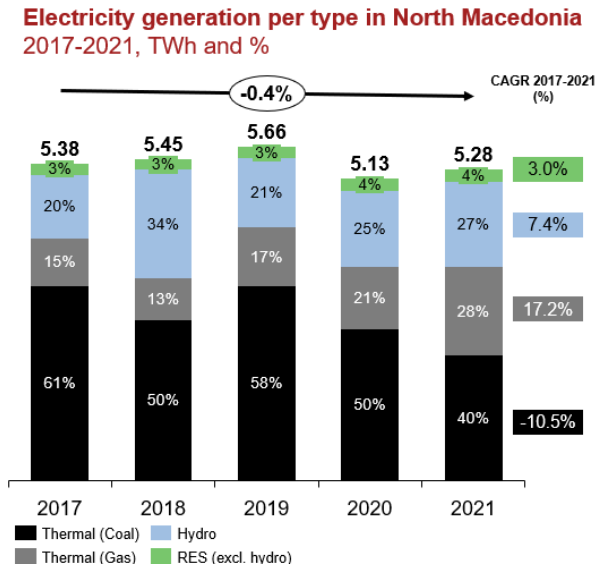
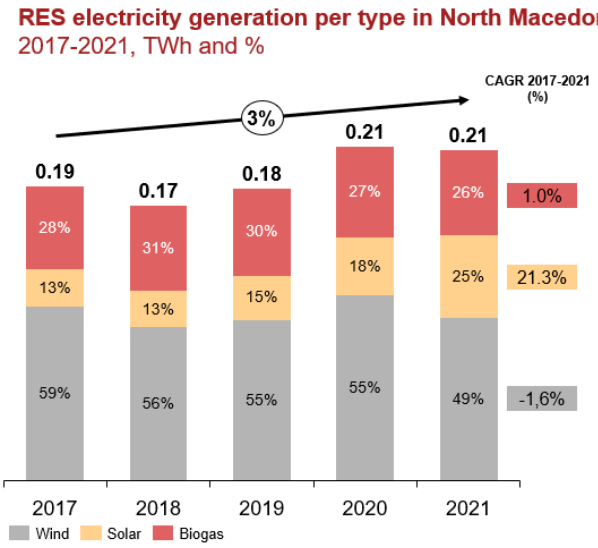


Figure 8 RES electricity generation per type in North Macedonia



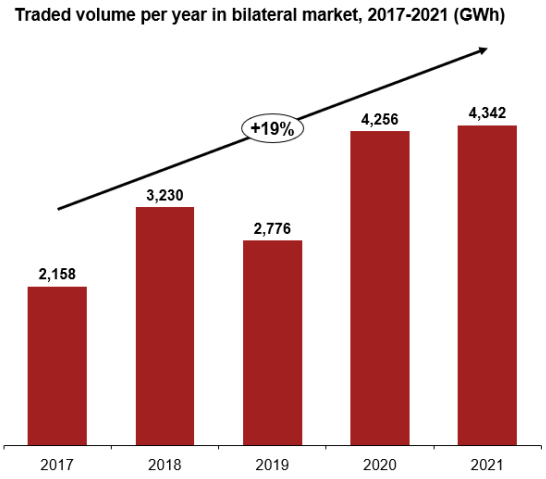
Source: ERC 2021 annual report, PwC Analysis

1.3.1.4. Trading volumes on North Macedonian bilateral market and wholesale prices

In 2021, there were 201 active participants on the electricity Bilateral Agreement Market, whereby 35 appeared as traders / suppliers, and 94 as electricity producers. The overall quantity of electricity traded (Figure 9) in the Wholesale Electricity Market in 2021 is 4,342 MWh, which marks an increase of 2% compared to 2020. The largest share of traded quantities in the domestic market in 2021, is by TE-TO AD Skopje with 35.19 %, followed

by EVN Trading with 21.51 %, and GEN-I Prodazba with 15.47 %. The overall trend that can be seen for the past 5 years is a 19% increase on average.

Figure 9 Traded volume per year in bilateral market



Source: ERC 2021 annual report, PwC Analysis

1.3.1.5. Consumption of electricity in North Macedonia

In 2021, the amount of electricity consumed by end-users, known as net consumption, was 6,865 GWh, indicating a rise of 389 GWh compared to the previous year, representing an increase of 6.10%. Furthermore, the losses incurred during electricity transmission and distribution systems in 2021 amounted to 1041 GWh, which indicates an increase of 5.90%. When accounting for both the net consumption and the losses incurred, the gross consumption of electricity in 2021 reached 7,906 GWh, marking an increase of 447 GWh, which represents a 6.00% increase from the previous year.

Consumers who are connected to the electricity distribution network consumed a total of 5,941 GWh of electricity in the year in question. This represents a significant increase of 7.65%, equivalent to 422 GWh when compared to the 2020 consumption of 5,519 GWh. This surge in electricity consumption indicates that there was an increase in electricity delivery in the regulated market. The overall increase in electricity consumption can be attributed to the resurgence of economic and social activities that followed the relaxation of Covid-19 restrictions in 2020.

Figure 10 Consumption per customer

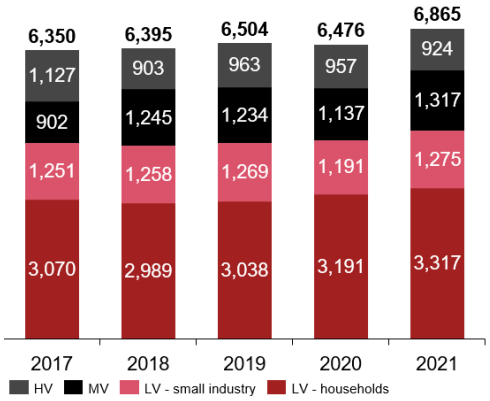
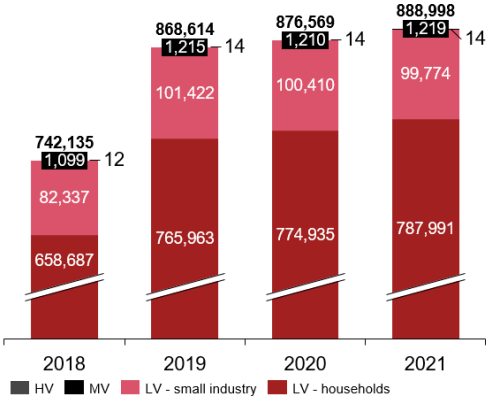


Figure 11 Number of connections per customer segment



Source: ERC 2021 annual report, PwC Analysis

At the end of 2021, the total number of end electricity consumers according to the number of metering points within the electricity system is about 889 thousand, indicating an increase of 1.42 % compared to 2020.

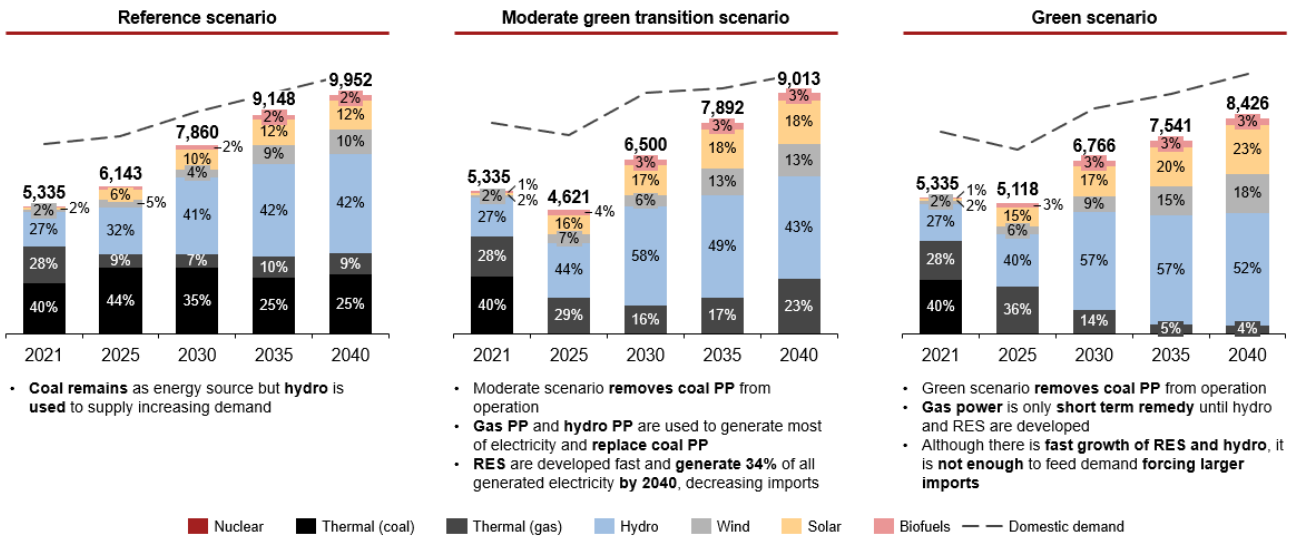
1.3.1.6. Directions for future development of the energy sector in North Macedonia

The Energy Development Strategy for the Republic of North Macedonia until 2040 provides the directions for development of the energy sector in North Macedonia, taking into account the energy policy trends at global and European level, and particularly in the framework of the Energy Community. Low carbon economy, renewable energy sources and energy efficiency are among the key factors enabling the transition. The strategy defines six strategic objectives for North Macedonia based on the five energy pillars. In order to achieve the 2040 vision the Strategy defines three scenarios – Reference, Moderate transition and Green scenarios:

Figure 12 Scenarios for energy market development from the Energy Development Strategy for the Republic of North Macedonia until 2040

	Macedonian National Strategy		
	Reference Scenario	**Moderately Green Scenario**	**Green Scenario**
Demand drivers	• Macedonian GDP growth to reach neighboring EU countries' GDP per capita levels of today by 2040 • **Current** energy efficiency **policies** • **Penetration** of **EVs**	• Same GDP growth as for reference • Energy efficiency based on **enhanced policy** (in line with EU Directives / EnC guidelines) • **Higher penetration** of **EVs**	• Same GDP growth as for reference • **Same as moderate** transition but **more incentives** and **advanced technologies** • **Highest penetration** of **EVs**
Generation investments focus	• **Lignite PP revitalization** choice is based on cost of carbon emissions • **High focus** on **RES**	• **Lignite PP revitalization** choice is based on **cost** of carbon emissions • **Further focus** on **RES** technology investments	• **Lignite PP revitalization** choice is based on **cost** of carbon emissions • **Extreme focus** on **RES** investments
ETS entrance	• 2027	• 2025	• 2023
Commodity prices	• Based on **current policies scenario**	• Based on **new policy scenario**	• Based on the **sustainable development scenario**
Fuel Supply / Availability	• **Lignite production capped** at a maximum level of annual supply expected (~ 5 M tons 2018-2035, ~ 3 M tons 2035-2040) • **Hydro production and wind/solar** in line **with historical trends** and **adjusted for new** entering **power plants** • Cross Border Capacities (electricity and gas) evolution in line with the ENTSO-E, ENTSO-G and EnC • Sustainable consumption of biomass[2] • Battery storage (EVs and pump storage)		
	Low → Decarbonization ambition → High		

The Moderate and green scenarios of national strategy assume coal phase-out until 2025 which will boost RES build-up in the country.



Source : Energy Development Strategy for the Republic of North Macedonia until 2040

1.3.2. Albania

1.3.2.1. Macroeconomic overview

Economically, Albania has transitioned from a centralized, socialist economy to a market-oriented one since the collapse of communism in the early 1990s. The country has made significant progress in economic and political reforms to meet the requirements for accession to the European Union. However, it remains among Europe's poorest countries with high levels of emigration and high poverty rates.

The country's economy is primarily driven by the services sector, followed by manufacturing and agriculture. The country's gross domestic product (GDP) in 2021 was EUR 16 billion. In 2021, the real GDP increased by 8.5% compared to 2020, when a large drop of 3.5% was registered. The improved economic activity was driven by public and private investments, growing employment and private consumption as well as goods export, mainly electricity and construction material. As per IMF data from October 2022 real GDP has slowed down in 2022 to 4% and is projected to further slowdown to 2.5% in 2023. The slower growth in 2022 has been affected by the impact of the ongoing war in Ukraine on the main EU trading partners, supply chains and commodity prices. In the medium term the IMF expects GDP growth to recover and reach 3.4% by 2027, as private consumption is projected to return as a key driver of GDP growth. Further support is expected, in terms growth, driven by private investments.

According to IMF data from October 2022, the national debt in 2022 was 70.3% of GDP, while the fiscal deficit was 4.1% of GDP. According to IMF expectations for medium term the deficit is expected to be gradually reduced and in 2027 is projected to reach 3% of GDP.

According to IMF, current account deficit reached 8.6% in 2022. Over the medium term the IMF expects CA deficit to improve to 7.4% of GDP by 2027, supported by a higher GDP denominator.

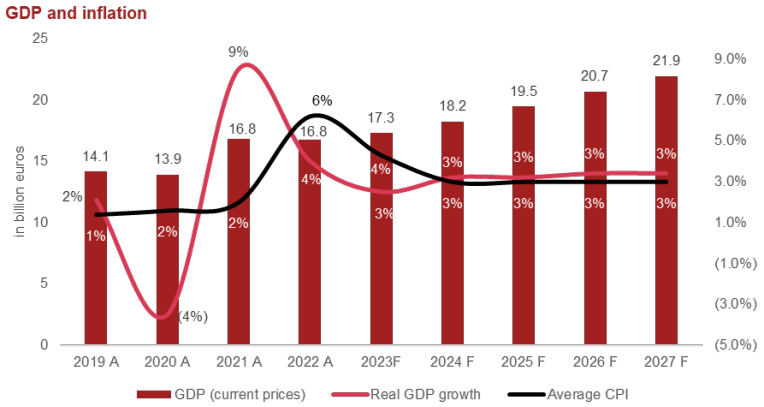
After the deflationary period in 2020 CPI has increased reaching 2% in 2021 and 6.2% in 2022 (according to IMF) in response to the increasing price pressures in food and energy. In 2023, the inflation is expected to decline to about 5%, however it is projected above the target level of 3.5% due to the effect of the domestic upward pressure.

According to IMF's medium-term expectations the inflation in Albania (2027: 3%) is expected to be slightly above the expected inflation in the euro area (2027: 2%).

The official currency is the Albanian Lek (ALL). Albania is an EU candidate country since 2014, WTO member since 2000, and has become a NATO member in 2009. The country is signatory of three multilateral Free Trade Agreements: SAA, EFTA and CEFTA.

The official currency is the Albanian Lek (ALL).

Figure 13 GDP and Inflation in Albania



Source: IMF, PwC Analysis

1.3.2.2. Electricity market structure and key stakeholders

The Energy Regulatory Authority in Albania is a leading authority oversees wholesale energy market monitoring to ensure compliance with the regulations.

During 2001, the Albanian Energy Corporation (KESH) underwent structural changes, resulting in the establishment of three vertically integrated state-owned entities for generation, transmission and distribution respectively. Previously, KESH was exclusively responsible for generating, transmitting and distributing electricity to customers as well as exchanges with neighbouring countries.

Generation- The production of electricity in the Republic of Albania is enabled by hydro power plants and photovoltaics. 99.5% from the produced electricity is generated from HPPs, indicating the country is dependent on production based on hydro resources. Largest electricity producers in Albania are KESH with ca. 60% in total production of electricity in Albania (HPP Fierze, Koman, V.Dejes and TEC Vlora), HEC Lanabregas, HEC Kurum International (HPP Ulez, Shkopet, Bistrica 1 and 2), HEC Ayen AS Energji (HPP Peshqesh and Fangu), Devoll Hydropower (HPP Banje and Moglice).

Wholesale- The wholesale energy market is regulated with the Regulation for the Wholesale Energy Market Integrity and Transparency (REMIT) which ensures proper operation of the market. The Energy Regulatory Authority conducts wholesale energy market monitoring

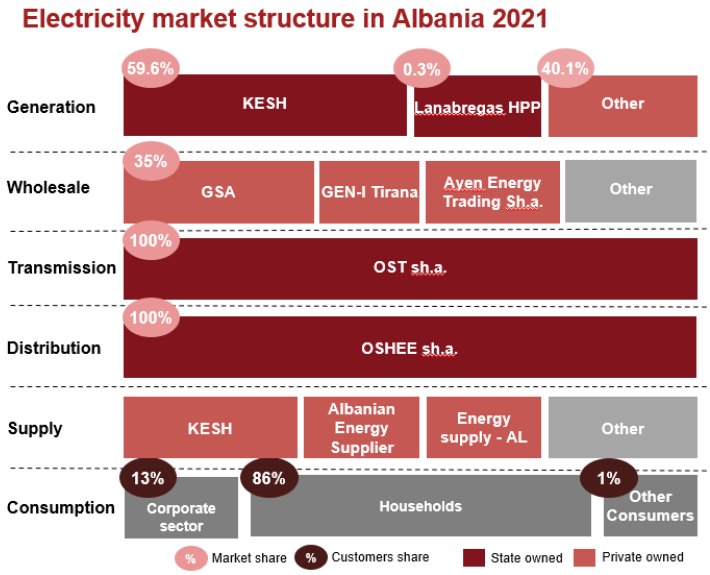
Transmission- OST Sh.A is the sole owner and operator of the transmission grid. It was unbundled from KESH, giving rise to the TSO in 2004. OST sh.a., is responsible for the transmission of electricity, including interconnections with other cross-border systems. As a public company with 100% state shares, it is accountable for the operation, maintenance, and development of the transmission system.

Distribution- The management of electricity distribution is the responsibility of the public company with 100% state shares, the Electricity Distribution Operator, OSHEE sh.a. This company ensures the safe, reliable, and efficient operation of the distribution network.

Supply- The retail market for electricity was served by 23 active electricity suppliers in 2021, which is five more than the previous year. These suppliers provided electricity to large and small consumers alike.

Consumption- In 2021, the total consumption of electricity equalled 8,414,836 MWh which is the highest historic consumption in Albania, indicating an increase in electricity consumption by 11% compared to 2020.

Figure 14 Electricity market structure in Albania

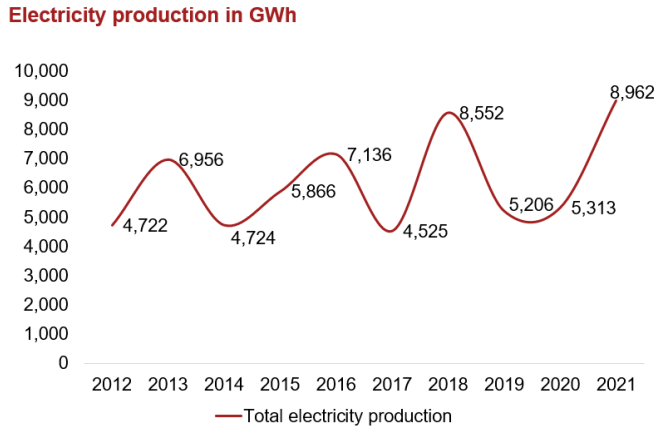


Source: Energy Regulatory Authority (ERE)

The domestic electricity production in Albania in year 2021 equals 8,962 GWh and is reliant on hydro resources (99.5% of total electricity is produced from hydro plants). Imported electricity in the country in 2021 accounted for 21% of total electricity in the transmission system. The total capacity of electricity production installed in the country as of 31 December 2021 is 2,605 MW marking an increase of 97 MW compared to year 2020.

KESH sh.a., the largest producer in the Albanian market, holds a significant share in the total installed capacity for 2021 at 56%, which amounts to 1,448 MW. As a result, in 2021, KESH generated 5,344 GWh of power from its state-owned plants, contributing to 59% of the country's total net domestic production. The domestic net production for the year amounted to 8,962 GWh, while the total consumption was 8,415 GWh which is the highest historic consumption in Albania, indicating an increase in electricity consumption by 11% compared to 2020 (7,588 GWh). This resulted in a net export of 548 GWh.

Figure 15 Electricity production in Albania (GWh)

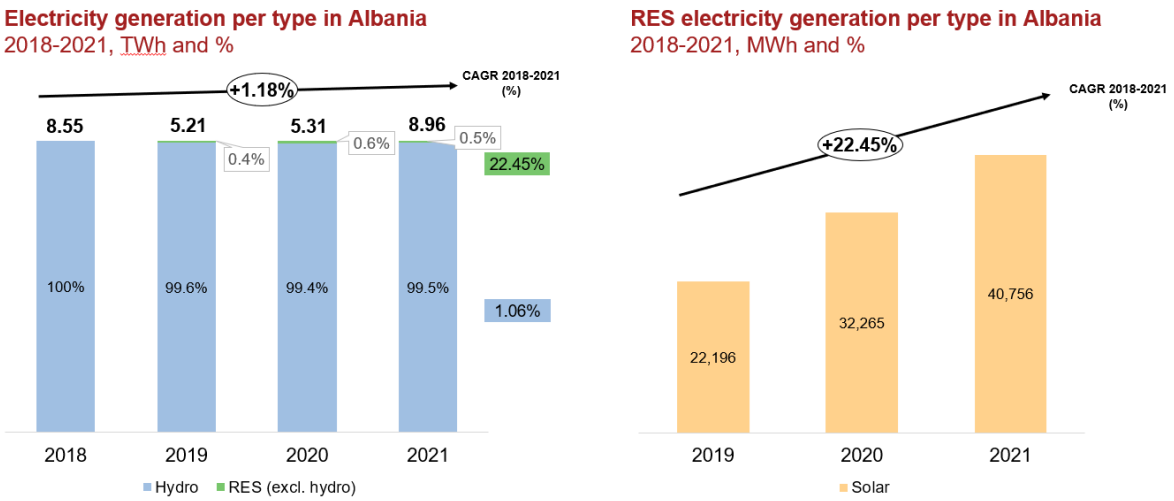


Source: ERE annual reports, PwC Analysis

The dominance of hydro generation in the Albanian energy mix in 2021 is significant, with a contribution of 99.5% to the net production. This means that out of the total energy generated, 99.5% came from hydroelectric sources, while the remaining percentage was contributed by other energy sources such as wind,

solar, or thermal. This is due to Albania's abundance of natural water resources, which makes hydroelectricity the most viable and cost-effective means of generating electricity in the country. We can also see a trend of a 22.45% increase in production of electricity form solar over the last three years.

Figure 16 Electricity generation per type in Albania

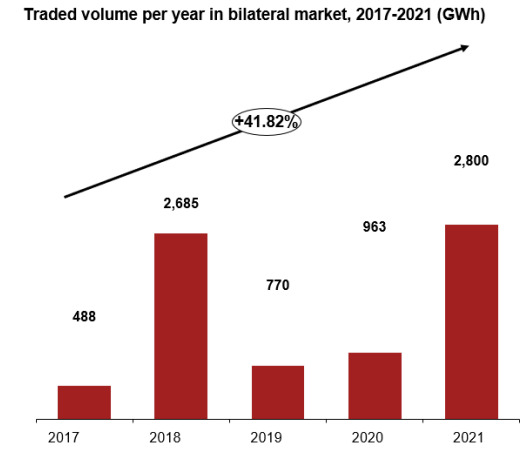


Source: ERE annual reports, PwC Analysis

1.3.2.3. Traded volumes on the Albanian bilateral market

In 2021, the net import export balance is 548 GWh as a result of the realized export of 2,800 GWh and the realized import of 2,252 GWh. It is important to note that the realized values of the electricity export/import are primarily influenced by the Albanian electricity system, which is based on hydro resources. During rainy periods, the country tends to export electricity, while during dry periods, electricity is imported to meet the customers' demands. Over the last decade, Albania has been predominantly a net importer of electricity. However, there has been a significant increase in realized exports from 2017 to 2021, with a compound annual growth rate (CAGR) of 42%. This suggests that Albania's energy sector is becoming more efficient and is able to meet its own demands, while also generating surplus electricity for export. It will be interesting to see if this trend continues in the coming years, and how it will impact the country's energy independence and economic growth.

Figure 17 Overview of the Albanian bilateral market



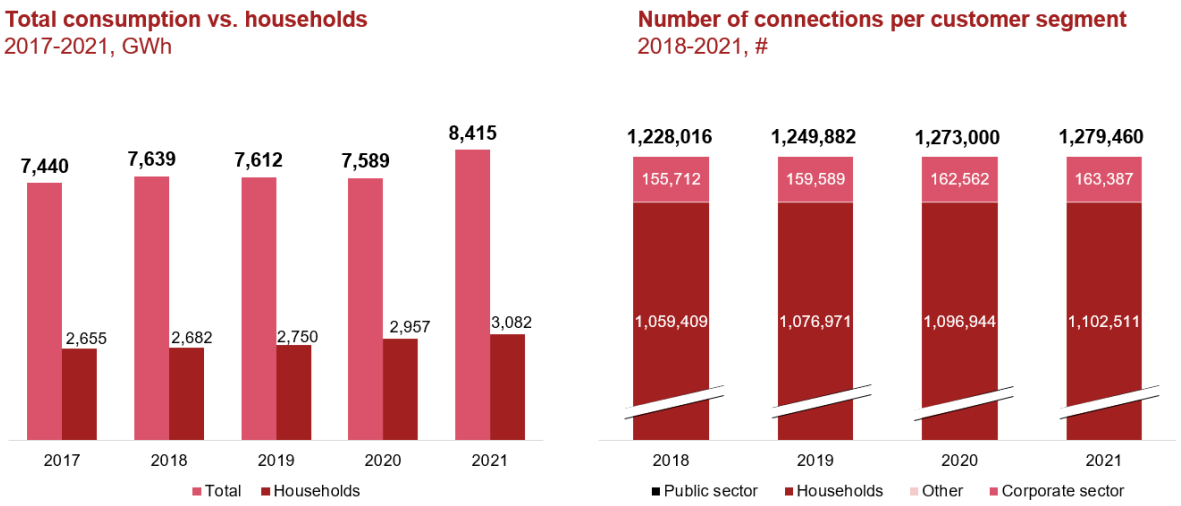
Source: ERE annual reports

1.3.2.4. Consumption of electricity & household electricity prices in Albania

The total annual electricity consumption (including the consumption of customers in the unregulated market) in Albania for the period 2017 to 2021 period, is presented on Figure 18. The data provided for the 2021 period

indicates that the total number of customers is 1.27 million with household customers comprising the majority at 86.17%. Household customers constitute the largest portion and account for the majority of the electricity invoiced, amounting to 49.36% of all invoices generated in 2021. The total energy consumption has increased across all customer categories, with a significant increase observed in the consumption of customers supplied in the unregulated market. Compared to 2020 there is a slight increase of electricity production in the country by 11%. Household customers consumption amount for 36.6% of the total consumption, a number that is lower compared to the consumption for the same category for 2020 period, that was of about 39%. In 2020, these customers consumed approximately 870 GWh of electricity, whereas in 2021, the consumption rose to about 1,114 GWh. This rise in consumption can be attributed to the changing economic structure and development, following the COVID-19 pandemic's impact on the economy in 2020.

Figure 18 Total consumption vs households & number of connections per customer segment



Source: ERE annual reports, PwC Analysis

1.3.2.5. Directions for future development of the energy sector in Albania

As per the Draft of the national and climate plan, Albania is involved in the process of creating a supportive domestic energy market, ensuring energy security, energy efficiency, environmental protection including GHG emissions reduction which are described and presented through so many planned measures and investments identified in different policy documents. The National Strategy of Energy, 2nd and 3rd Action plan on EE, Consolidated Renewable Energy Action Plan, National Plan for the Mitigation of GHG and the Strategy of Transport have defined objectives and targets on increasing the security of supply by investments in the power sector, gas penetration in the Albanian market, increasing the share of RES and EE followed by a reduction of GHG emissions.

The implementation of this Energy Strategy will enhance Albania's energy security and begin integrating the Albanian energy market into regional and European markets. This strategy aims to create equal conditions for all energy companies operating in the Albanian energy market, improve welfare, and minimize adverse impacts on the environment while balancing national interests with those of different energy sub-sectors.

In the National Strategy for Energy, 6 scenarios are defined for the future development of the countries energy sector:

- **Baseline Scenario:** This represents the most likely evolution of the Albanian energy sector with no further policy interventions. This scenario is the base for comparison with the policy scenarios below.

- **Energy Efficiency (EE):** This scenario assumes that Albania meets its Energy Community Treaty commitments by implementing the second National Energy Efficiency Action Plan and enforces the Law on Energy Efficiency (together with improvement of the Law to transpose EED requirements) and the Law on Energy Performance in Buildings.
- **Renewable Energy Sources (RES):** Assumes that Albania meets its Energy Community Treaty commitments of reaching a 38% renewable energy target in 2020 by implementing the Albanian National Renewable Energy Action Plan.
- **Natural Gas Promotion:** Assumes maximum possible penetration of natural gas in line with the Gas Master Plan.
- **Albania-Kosovo Coupling:** Assumes the coupling of the Albania and Kosovo electricity markets by establishing a single bidding zone with a common PX platform and algorithm for settling market transactions. • Combined: Combines the EE, RES and Natural Gas Promotion scenarios.

Energy mix scenarios by Albanian Energy Strategy

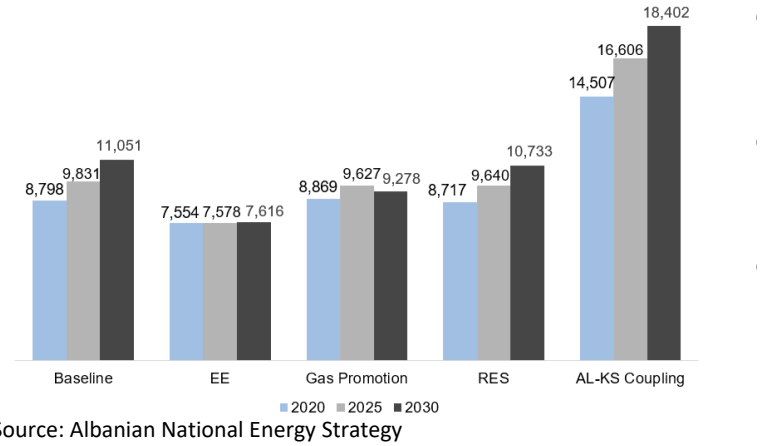
	Albanian National Strategy				
	Baseline Scenario	**EE Scenario**	**RES Scenario**	**Natural Gas Promotion**	**AL-KS Coupling**
Objectives	• Energy demand projections are consistent with NREAP and NEEAP analyses • Energy supply and demand structure remains similar to base year (2014)	• Reduction in energy imports by 19% • Reduction in final energy consumption by 28% • Reduction in GHG emissions by 27% compared to baseline scenario	• Reaching of 38% renewable target in 2020 • Reduction of electricity and oil by products import • Potential to achieve 1/3 the CO2 emissions reduction compared to EE scenario	• Reduction in RES utilization by replacement of part of the electricity generated from HPP used for space heating with natural gas.	• Reduction in the electricity system costs through efficient utilization of cross-border capacity between Albania and Kosovo • Improved security of electricity supply • Higher utilization of the existing generation capacities
Generation investments focus	• Significant share of future electricity demand to be met from **new HPPs and thermal plants based on imported natural gas**.	• Focus on **RES technology**	• Focus on **RES technology**	• Generation of electricity from **natural gas**	• Combining **thermal (base) generation** in Kosovo and **hydropower (peak)** capacities in Albania
Combined Scenario (EE, RES, AL-KS Coupling and Natural Gas Promotion)	• **Reduction in energy imports by 32%** compared to baseline scenario • Potential to **reach RES target past 2020** • **Reduction in the final energy demand by 19.4%** compared to baseline scenario • **Reduction in GHG emissions by 28%** compared to baseline scenario • **Reduction in electricity generation requirements** by **at least 31%** • **Natural gas penetration up to 19.8%** of the total primary energy source **by 2030** • Potential for **reduction in the energy intensity of GDP by 18%**				

Source: Albanian National Energy Strategy

Based on the different scnearios, the Strategy envisages different generaton forecasts presented in the graph below

Figure 19 Electricity Generation forecast by the Albanian National Strategy

Electricity generation forecast by Albanian National Strategy (GWh)



Source: Albanian National Energy Strategy

1.3.3. Montenegro

1.3.3.1. Macroeconomic overview

Montenegro has a population of about 0.6 million and GDP of about EUR 6 billion. In 2021, the real GDP growth in Montenegro reached 13%, a significant positive change compared to 2020, when it was registered drop of 15.3%. The main driver of the upward movement was the net exports as the tourism activity grew which led to increase in the private consumption. As per IMF data from October 2022 real GDP has slowed down in 2022 to 7.2% and is projected to further slowdown to 2.5% in 2023. The major cause that led to slower growth in 2022 are the increasing prices of food and energy, the effect of the war in Ukraine as well as the local political crisis and related uncertainties. IMF expects GDP growth to reach 3% by 2027, as tourism and employment are projected to return to their pre-pandemic levels.

According to IMF data from October 2022, the national debt in 2022 was 74.4% of GDP, while the fiscal deficit was 5.0% of GDP. According to IMF expectations for medium term, the deficit is expected to increase and in 2027 is projected to reach 6.5% of GDP.

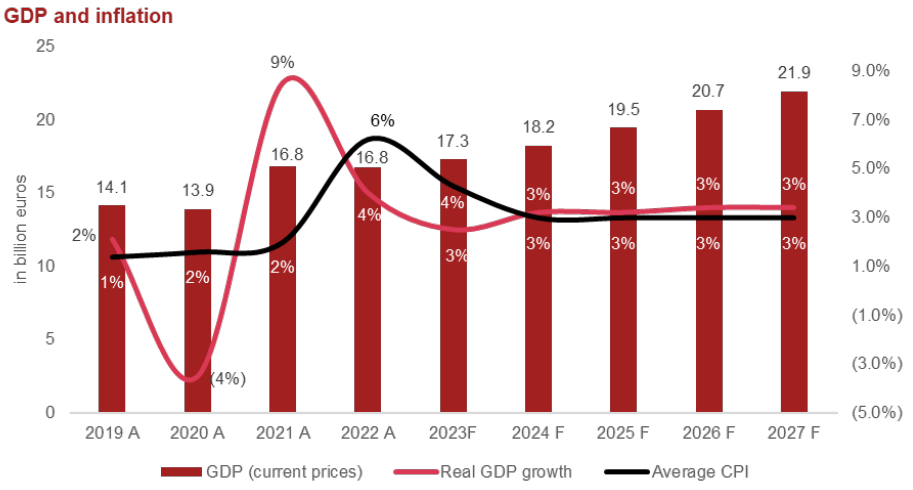
According to IMF, current account deficit reached 13.8% in 2022. Over the medium term the IMF expects CA deficit to slowly decrease to 29.9% of GDP by 2027, as import-dependent activities are expected to expand.

The CPI has increased in 2022 reaching 12.8%. However, the surge in consumer prices is expected to be temporary and IMF projected gradual deceleration beginning from 2023.

According to IMF's medium-term expectations the inflation in Montenegro (2027: 1.9%) is expected to remain in line with euro area inflation (2027: 2%). Although Montenegro's economy marked significant growth in 2021, it did not reach pre-pandemic levels affected by the Russia's invasion of Ukraine as well as the inflationary pressures.

Montenegro is an EU candidate country, WTO member since 2011, and has become a NATO member in June 2017. The country is signatory of three multilateral Free Trade Agreements: SAA, EFTA and CEFTA. The official currency is the Euro (EUR).

Figure 20 GDP and Inflation in Montenegro



Source: IMF, PwC Analysis

1.3.3.2. Electricity market structure and key stakeholders

The structure of the electricity market in Montenegro is as follows:

Generation- the electric power systems comprises of 49 power plants and 21,625 km of transmission and distribution networks. Largest electricity producers in Montengro are EPCG AD Niksic with 84% in the total

produced electricity in 2021, Doo Zeta Energy Danilovgrad (HPP Glava Zete and Slap Zete), Doo Hidroenergija Montengro Podgorica (HPP Jezerstica, Bistrica, Rmus etc), Doo Synergy Podgorica (HPP Vrelo), Doo Igma Energy Andrijevica (HPP Bradavec and Pisevska river).

Wholesale- On the Montenegrin wholesale electricity market, EPCG continues to be dominant producer and trader. Besides EPCG, CEDIS and CGES, there are two non-state registered companies on BELEN – Danske Commodities and GEN-I.

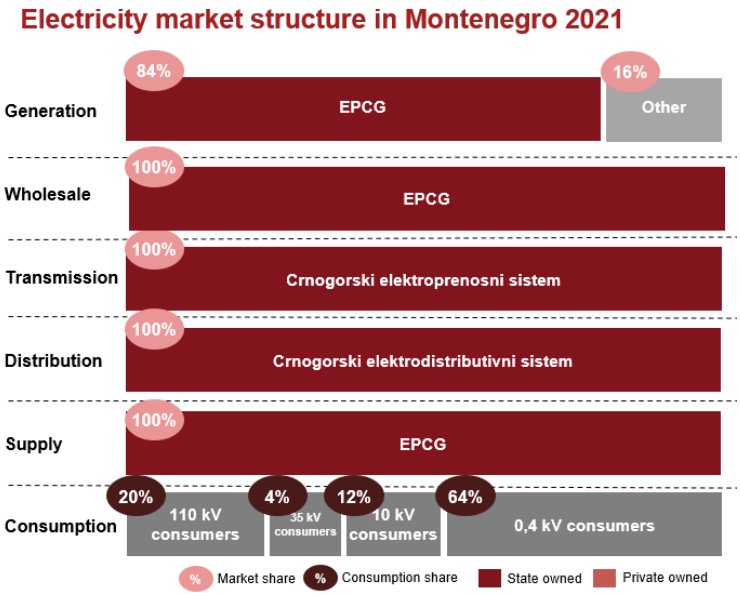
Transmission- The transmission network is managed by the transmission system operator, CGES, which is unbundled and jointly owned by the State and the Italian transmission system operator Terna.

Distribution- The distribution network is managed by the distribution system operator, CEDIS, which is also unbundled and responsible for maintaining, improving, and developing the distribution system.

Supply- Although the retail market is deregulated, only the incumbent is supplying final customers, including as the supplier of last resort for small customers, households and vulnerable customers.

Consumption- the largest increase in electricity consumption in 2021 was recorded among customers connected to the 10 kV voltage level (9.49%). Total transmission losses in 2021 were 158GWh (1.8%), and distribution losses were 345GWh (12.4%)

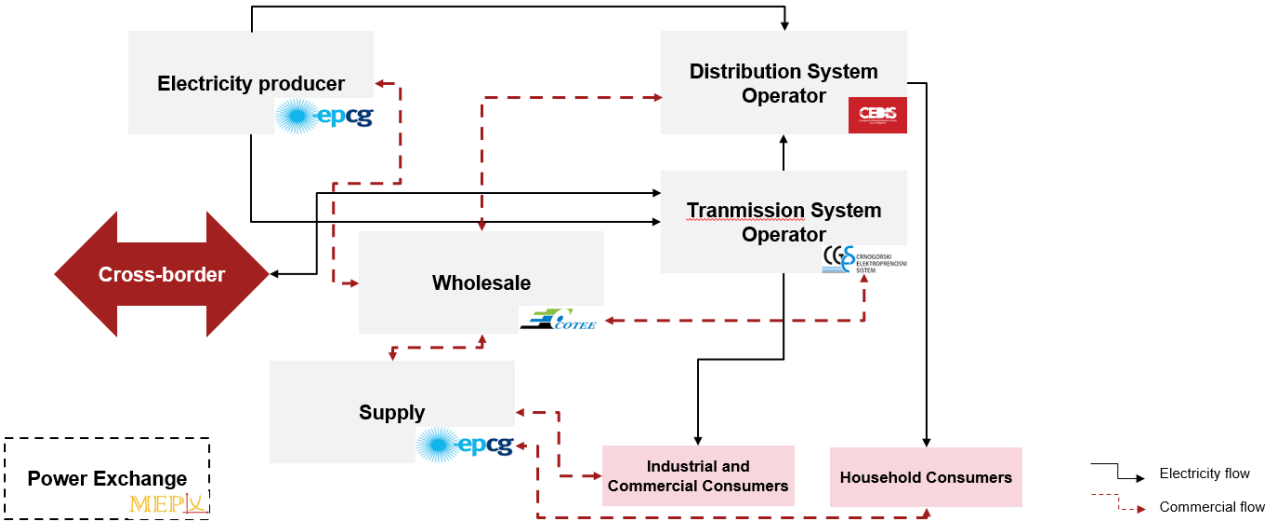
Figure 21 Electricity market structure in Montenegro 2021



Source: REGAGEN 2021 annual report, PwC Analysis

In the Montenegrin retail market, all customers can choose their electricity supplier. However, currently, the incumbent is the sole provider for all final customers. EPCG is an electricity producer that operates as a part of a vertically integrated company. On the other hand, EPCF, which was a public supplier until 2016, serves as a supplier of last resort for vulnerable customers. Apart from EPCG and EPCF, the market has 27 other small producers, contributing to a total of 16% of the market's production. BELEN is the primary power exchange in Montenegro, facilitating trading and auctions for electricity purchase. However, during 2021, it did not provide supply-demand matching services for the day-ahead and intra-day basis market. Instead, it organized auctions for the purchase of electricity to cover losses in the transmission and distribution networks.

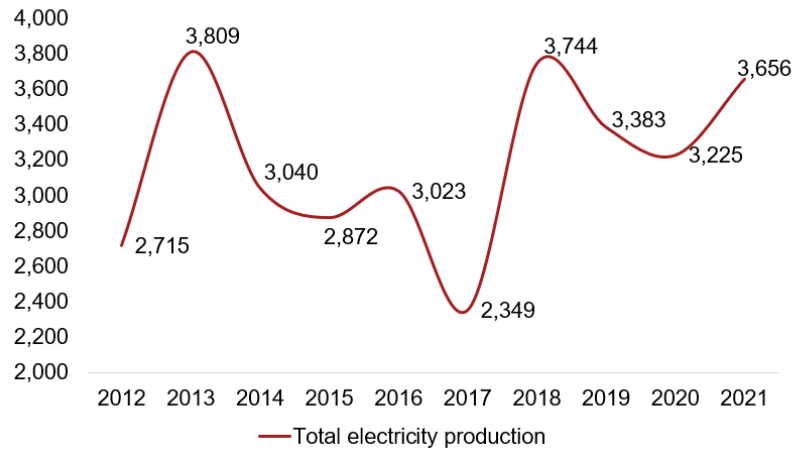
Figure 22 Market relationships and electricity flow in Montenegro



Source: REGAGEN 2021 annual report, PwC Analysis

In 2021, the electricity production in Montenegro has increased by 13.35% compared to the levels generated in 2020 (Figure 23). The total domestic electricity production in 2021 amounted to 3,656 GWh, which is 13.35% higher than the electricity produced in 2020, amounting to 3,225 GWh. The electricity generation in Montenegro relies heavily on hydropower plants, which generated 54.7% of the total electricity generated in 2021. EPCG AD Nikshich is the largest producer and the sole supplier in Montenegro's electricity market, with an 84% share in the total installed capacity in 2021, which amounts to 878 MW. As of December 31, 2021, EPCG had secured contracts to supply electricity to 160,095 customers, representing 39% of the total customers in the country.

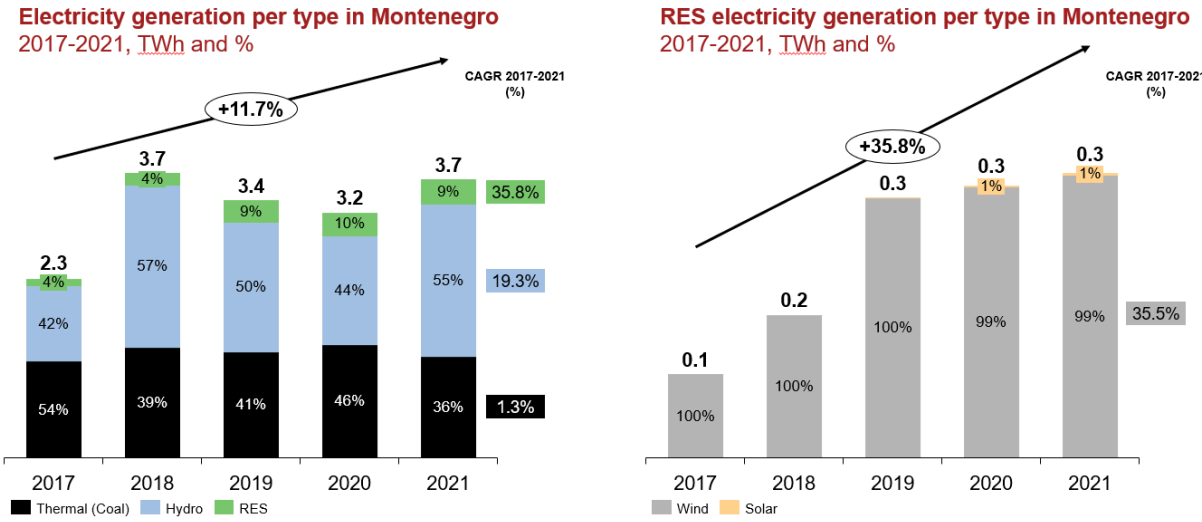
Figure 23 Electricity production in GWh in Montenegro



Source: REGAGEN Annual Reports, PwC Analysis

The country has a total installed capacity of 1,051 MW as of December 31, 2021, with hydro power plants representing 67% of the capacity, thermal power plants contributing 21%, wind power plants providing 11%, and solar power plants accounting for 1% (Figure 24).

Figure 24 Electricity generation by type in Montenegro

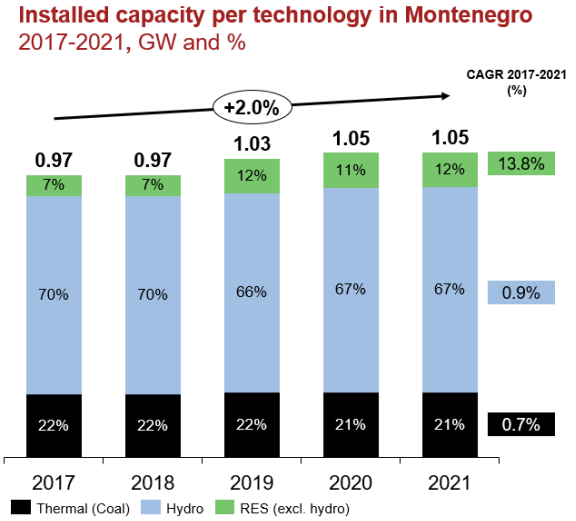


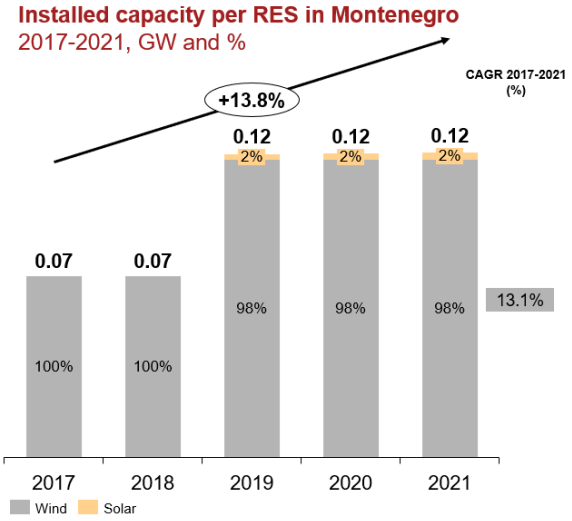
Source: REGAGEN Annual Reports, PwC Analysis

The Energy Development Strategy of Montenegro until 2025 highlights the country's remarkable hydropower potential, which is among the world's highest in terms of strategic priority index, cost-effectiveness, and compatibility with the ecological and social environment. The estimation of hydro potential in Montenegro is based on the results of the Water Resources Management Baseline Study and studies conducted between 2005 and 2006. HPP Perućica, the first large hydropower plant, started its operation in 1960, followed by HPP Piva in 1976, utilizing 39% of the available technically exploitable potential of the main running waters. The Energy Development Strategy until 2030 includes the construction of hydropower plants on the Morača River and HPP Komarnica to further capitalize on Montenegro's hydro potential, although no specific activities were carried out in the reporting period regarding the construction of hydroelectric power plants on the Morača River.

Montenegro has also begun to harness its wind and solar potential for electricity production. The 72 MW WPP Krnovo, commissioned in 2017, was the country's first wind power plant, followed by the 46 MW Možura WPP two years later. However, wind power plants are intermittent sources of electricity due to their dependence on the availability of wind as a primary resource. The WPP Gvozd's construction is currently underway to further utilize the wind potential on the Krnovo Plateau, with plans for a wind power plant in Brajići as well. As for solar energy, Montenegro has excellent potential with about 2,000 hours of sunshine in most parts of the country and over 2,500 hours of sunshine in the coastal region annually. The commissioning of SPP DG, SPP Bar-Kod, and SPP Invicta in 2019 marked the start of commercial exploitation of solar energy in Montenegro, followed by SPP Alliance and SPP FSCG. Currently, the total power of commercial power plants in Montenegro is 2,233 MW. These developments stem from the 2007 study, "Assessment of the potential of renewable energy sources in the Republic of Montenegro," which produced 13 global maps showing the average daily values of solar radiation on a monthly and annual level, ultimately concluding that Montenegro has excellent solar energy potential, particularly in the city of Podgorica.

Figure 25 Installed capacity per technology and RES in Montenegro





Source: REGAGEN Annual Reports, PwC Analysis

1.3.3.3. Directions for future development of the energy sector in Montenegro

Montenegro continually works on improving its good track record in electricity, energy efficiency and climate acquis implementation. Based on the Annual implementation report issued in November 2022 by the Energy Community, Montenegro is one of the three Contracting Parties which achieved its 2020 renewables target. As a top performer, Montenegro achieved the national 2020 energy efficiency target, and progressed with adoption of new labelling regulations, finalization of amendments to the Law and tools for certification of buildings.

The trend of renewable energy sources continues to grow in Montenegro, accounting for the majority of total generation. Despite the increase in electricity consumption, the transmission and distribution losses remain relatively low.

Montenegro has no infrastructure for natural gas distribution and does not currently extract oil, although the government is interested in oil and gas production in the Adriatic Sea. The Ionian Adriatic Pipeline (IAP) is a PMI, crossing Montenegro. The project, which is in the planning and design phase, could introduce natural gas into the energy mix of Montenegro from the south, e.g. via the TAP pipeline, or from the north by accessing LNG sources from Croatia.

The Energy Development Strategy of Montenegro until 2030 aims to reduce the country's dependence on imported energy sources and increase the share of renewable energy sources in the energy mix, with a target of achieving 40% of renewable energy in the electricity mix by 2030. The strategy also includes goals to increase energy efficiency and reduce greenhouse gas emissions Montenegro has great potential for reducing demand through more efficient energy use. According to IEA statistics, Montenegro's energy intensity has been falling slightly in recent years but is still more than twice that of the EU-28.

Development and adoption of integrated National Energy and Climate Plans (NECPs) is a legal obligation for the Energy Community Contracting Parties under the adopted Governance Regulation at the 2021 Energy Community Ministerial Council. According to Regulation, the draft NECPs are to be submitted for the Secretariats' review and opinion by June 2023 and adopted by Contracting Parties by June 2024

Montenegro submitted the analytical part and updates of draft NECP to the Secretariat for information in May 2022 – draft NECP scenarios have a high level of uncertainty as there is no policy decision on the future of coal fired TPP Pljevlja.

1.4. Regulatory requirements for approval of green projects

In this section we will cover the regulatory requirements in each of the three jurisdictions for:

- Development of renewable energy power plants;
- Development of photovoltaics on building rooftops;
- Projects related to energy efficiency.

1.4.1. North Macedonia

1.4.1.1. Renewable energy power plants

Below are the regulatory steps to be undertaken for the development of renewable energy production projects (hydro, wind and solar power plants).

Table 5 - Development of renewable energy power plants (hydro, wind and solar power plants) in North Macedonia

No.	Step	Responsible authority/party	Term	Comment
1.	Adoption of the required urbanistic planning documentation.	- The investor; - The competent municipality.	This is the initial action which needs to be undertaken.	The implementation of this procedure is required if the existing urbanistic planning documentation for the area where the power plant will be developed does not envisage the development of the power plant. The procedure is fully implemented before the respective municipality and could take from one to six months, depending on the complexity of the project. If repurposing of the land is required (from agricultural to construction land) the same will be done during this procedure.
2.	Obtaining of required environmental permits.	- The investor; - The competent municipality; - The Ministry of Environment and Spatial Planning (the "**MESP**").	Upon finalization of step 1.	The investor should obtain the required environmental permits for development of the power plant. The specific type of approval (elaborate or a study) will depend on the type of project[2]. This step could take from two up to five months. No environmental permits are required for photovoltaic power plants ("**PVPP**") with up to 200MW capacity which should be installed on roof surfaces.
3.	Approval of urbanistic design.	- The investor; - The competent municipality.	Upon finalization of step 1.	This step will be required if the urbanistic planning documentation (item 1 above) does not contain enough details for the development of the power plant. The urbanistic design should be prepared by a licensed company hired by the investor and approved by the competent municipality.
4.	Grid connection.	- The investor; - The competent grid operator.	Any time upon finalization of step 1.	The power plant should be connected to the distribution grid (smaller capacity power plants) or the transmission grid (larger capacity power plants). The investor should file request for connection to the competent grid operator The grid operator will implement a procedure on the basis of the applicable network code. The procedure will be finalized by entering into an agreement between the operator and the investor regulating the details for the development of the connection.

[2] For example photovoltaic power plants up to 200MW require preparation and approval of environmental protection elaborate and above 200MW require preparation and approval of environmental impact assessment study.

5.	Consent on the safety of air traffic.	- The investor; - The Agency for Civil Aviation.	Upon the preparation of the basic design.	This consent is usually issued for wind farms due to their height and the effect that may have on air traffic.
6.	Water management consents.	- The investor; - The MESP.	Upon the preparation of the basic design.	For the purposes of development of hydro power plants the investor would need to obtain a water management consent, a consent for use of water and water discharge consent from the MESP.
7.	Consent for development of PVPP located on land.	- The investor; - The Ministry of Economy (the "**ME**"); - The Government of North Macedonia.	Upon finalization of step 1.	The investor should file to the ME a request for issuance of consent for development of PVPP. If the PVPP is with a capacity exceeding 10MW, such consent will be issued by the Government of North Macedonia upon ME's proposal. This consent is only required for PVPPs developed on land surfaces and not on budlings.
8.	Governmental authorization.	- The investor; - The Government of North Macedonia.	Upon finalization of the steps from items 1 to 7 above.	Further to step 7 above, for a power plant with a capacity exceeding 10MW the investor will need to obtain additional Governmental authorization. In this procedure, the investor should also prove that it has obtained sufficient funding for the development of the power plant. The Government of North Macedonia should adopt the decision within 60 days as of the filing of the complete request by the investor.
9.	Positive opinion of the Institute for Earthquake Engineering and Engineering Seismology (the "**IEEES**").	- The investor; - The IEEES.	Prior to the obtaining of the construction permit.	Prior to the obtaining of the construction permit the IEEES should review the basic design for the project and should issue a positive opinion on the designed degree of mechanical resistance, stability, and seismic protection.
10.	Obtaining of construction permit.	- The investor; - The competent municipality; - The Ministry of Transport and Communications (the "**MTC**").	Upon finalization of the steps from items 1 to 9 above.	A permit for construction of renewable energy power plants must be obtained. Depending on the MW capacity, the construction permit is issued by the respective municipality (up to 1MW) or the MTC (above 1MW). As an exception, the construction permit for photovoltaics installed on land is issued by the municipality, regardless of its capacity. The procedure should be finalized within two to three months. In this procedure the competent authority will calculate a communal fee which should be paid by the investor for the purposes of connection of the land to the required infrastructure networks and issuance of the construction permit.
11.	Commencement with operation of the installed technical equipment.	The investor.	Upon installation of the technical equipment.	The power plant will include energy technical equipment which will need to be put in operation for the electricity production. Therefore, prior to the commencement of operation of such equipment, the investor will need to engage a licensed company to perform inspection and issue a positive report that the equipment is in good condition.
12.	Obtaining of temporary energy production license.	- The investor; - The Energy Regulatory	Upon the development of the power	For the purposes of obtaining of the final use permit for the power plant the investor will previously need

		Commission (the "**ERC**").	plant and prior to the obtaining of the use permit.	to obtain from the ERC a temporary energy production license. On the basis of this license the investor may perform the required tests for obtaining of the final use permit for the power plant.
13.	Obtaining of use permit.	- The investor; - The MTC.	Upon finalization of step 12 above.	For power plants with a capacity of up to 1MW no use permit should be issued. Instead, the licensed supervisor performing the supervision of the development should issue a positive report that the power plant may commence with operation. On the other hand, for the power plants with above 1MW capacity, a separate use permit is issued by the MTC.
14.	Issuance of title deed for the power plant.	- The investor; - The competent municipality; - The MTC; - The Real Estate Cadaster Agency (the "**North Macedonia Cadaster Agency**").	Upon finalization of step 13 above.	The ownership title over the power plant should be registered in the real estate records of the North Macedonia Cadaster Agency, which will issue a title deed for the same.
15.	Issuance of probation license for production of electricity.	- The investor; - The ERC.	Upon finalization of step 13 above.	Upon obtaining of the use permit, the investor should file to the ERC a request for obtaining of probation license for production of electricity. This license is valid for a period of up to nine months.
16.	Issuance of final license for production of electricity.	- The investor; - The ERC.	Upon finalization of step 15 above.	Prior to the expiration of the probation license, the investor should obtain a final license for production of electricity from the ERC.

1.4.1.2. Photovoltaic power plants developed on buildings

The applicable regulation stipulates simplified procedure for installation of PVPPs on buildings' rooftops. Depending on the purpose and capacity of the PVPP there are two separate procedures as follows:

- PVPPs installed on buildings for own consumption (the excess being transferred back to the distribution grid for certain compensation) by small consumers (up to 40kW) and state authorities (up to 40kW) (in this section the "**Own Consumption Roof PVPPs**"); and
- PVPPs installed on buildings not used for own consumption and/or exceeding the above stated capacity (in this section the "**Other Roof PVPPs**").

Table 6 – Development of Own Consumption Roof PVPPs in North Macedonia

No.	Step	Responsible authority/party	Term	Comment
1.	Notification on the intention for installation of the PVPP.	The investor.	This is the initial action.	The investor should deliver to the municipality on whose territory the PVPP will be developed a notification for the intention of development of the PVPP. The notification should be accompanied with appropriate documentation, including a basic design for the PVPP.
2.	Development of the PVPP.	The investor.	Upon finalization of step 1 above.	The PVPP should be installed by a licensed civil engineering company as per the prepared basic design.

3.	Issuance on notarized statement on the finalization of the development of the PVPP.	The civil engineering company performing the installation of the PVPP.	Upon finalization of step 2 above.	The civil engineering company that has performed the development of the PVPP should issue a notarized statement claiming that the development has been finalized as per the basic design, the PVPP is duly connected to the energy infrastructure and the PVPP may be used. Any technical equipment part of the PVPP should also be reviewed by a licensed company if the same has been properly installed.
4.	Delivery of the notarized statement to the competent municipality.	The investor.	Upon finalization of step 3 above.	The investor should deliver to the competent municipality the statement issued by the civil engineering company. After this, the PVPP may be used by the investor.

Table 7 – Development of Other Roof PVPPs in North Macedonia

No.	Step	Responsible authority/party	Term	Comment
1.	Obtaining of Governmental authorization for above 10MW PVPPs.	- The investor; - The Government of North Macedonia.	This is the initial action.	This is the same authorization as mentioned in item 8 from the table in Schedule 1.2. above. This authorization will only be required if the PVPP developed exceeds 10MW capacity.
2.	Filing of request for development of the PVPP.	- The investor; - The competent municipality.	This will be the initial action if step 1 is not required.	The investor should file a request for development of the PVPP to the municipality on whose territory the PVPP will be developed. The request should be accompanied with the required documentation, including audited basic design.
3.	Adoption of decision for development of the PVPP.	The competent municipality.	Within five business days as of the filing of the request.	If everything is fine with the filed request and documentation, the competent municipality will adopt a decision for development of the PVPP.
4.	Development of the PVPP.	The investor.	Upon the issuance of the decision for development.	The PVPP should be developed by a licensed civil engineering company.
5.	Commencement with operation of the installed technical equipment.	The investor.	Upon installation of the technical equipment.	The PVPP will include energy technical equipment which will need to be put in operation for the electricity production. Prior to the commencement of operation of such equipment, the investor will need to engage a licensed company to perform technical inspection to the equipment and issue a positive report that the equipment may commence with operation.
6.	Obtaining of temporary energy production license.	- The investor; - The ERC.	Upon the development of the PVPP.	For the purposes of putting the PVPP in operation (for the performance of the required tests) the investor will need to obtain from the ERC a temporary energy production license. On the basis of this license the investor may perform the required test for putting the PVPP into operation.

7.	Positive supervisory report.	The investor.	Upon the finalization of step 6 above.	The supervisory company that has performed the supervision of the development of the PVPP should issue a positive report that the PVPP is suitable for use. Upon the issuance of this report the PVPP may be used by the investor.
8.	Issuance of title deed for the PVPP.	- The investor; - The North Macedonia Cadaster Agency.	Upon finalization of step 6 above.	On the basis of the resolution from item 3 and the report from item 7, the North Macedonia Cadaster Agency will issue the title deed for the PVPP. The title deed will be the proof of ownership of the PVPP by the investor.
9.	Issuance of probation license for production of electricity.	- The investor; - The ERC.	Upon finalization of step 8 above.	Upon commencement of the PVPP with operation the investor should file to the ERC a request for obtaining of probation license for production of electricity. This license is valid for a period of up to nine months.
10.	Issuance of final license for production of electricity.	- The investor; - The ERC.	Upon finalization of step 9 above.	Prior to the expiration of the probation license, the investor should obtain a final license for production of electricity from the ERC.

1.4.1.3. Projects for building energy efficiency

Investments for making buildings more energy efficient may be made upon obtaining the required permits for reconstruction or adaptation (depending on the type of works which need to be performed). For the purposes of implementation of these types of projects, the below procedure needs to be implemented.

Table 8 - Projects for building energy efficiency in North Macedonia

No.	Step	Responsible authority/party	Term	Comment
1.	Submission of request for issuing of an approval.	The investor.	This is the initial action.	The investor will need to submit a request to the municipality where the investment is taking place for the issuance of the appropriate adaptation or reconstruction permit. The request should be supported with adequate documentation, including audited adaptation or reconstruction design (as applicable).
2.	Review of the request and the submitted documentation.	The competent municipality.	Upon filing of the request.	The competent municipality will review the filed request and documentation within five business days. Upon that the municipality will submit the documentation for inspection by the entities responsible for electricity, water supply and sewerage infrastructure.
3.	Issuance of reconstruction or adaptation permit.	The competent municipality.	Upon finalization of step 2 above.	If everything is in order with the filed documentation the competent municipality will issue the reconstruction or adaptation permit and will certify the reconstruction and/or adaptation design provided with the request.

1.4.2. Montenegro

1.4.2.1. Renewable energy power plants

Below are the regulatory steps to be undertaken for the development of renewable energy production projects (hydro, wind and solar power plants) with above 1MW capacity.

Table 9 – Development of renewable energy power plants (hydro, wind and solar power plants) in Montenegro

No.	Step	Responsible authority/party	Term	Comment
1.	Adoption of the required urbanistic planning documentation.	- The investor; - The competent municipality.	This is the initial action which needs to be undertaken.	The implementation of this procedure is required if the existing urbanistic planning documentation for the area where the power plant will be developed does not envisage the development of the power plant. The procedure is fully implemented before the respective municipality and could take from one to six months, depending on the complexity of the project. If repurposing of the land is required (from agricultural to construction land) the same will be done during this procedure.
2.	Obtaining of urban technical conditions for RES power plants.	- The investor; - The competent municipality.	Upon finalization of step 1.	The investor should obtain the required urban technical conditions for development of the power plant from the competent municipality. Rules on detailed criteria for assessing requests for issuing urban planning and technical conditions for construction of facilities for the production of electricity from renewable sources prescribe that RES power production facilities have to fulfil the following conditions in order to receive a decision on urban planning and technical conditions: - has a minimum power of 10MW; - RES measurement study is provided; - cannot be built on agricultural land or forest; - cannot be built in the protected areas; - access road is provided.
3.	Preparation of the conceptual design.	- The investor; - The competent municipality.	Upon finalization of steps above.	The investor, along with submission of proof of ownership of the construction area, has to submit the conceptual design. The conceptual design should be prepared by a licensed company hired by the investor and should be further approved by the competent municipality.
4.	Grid connection.	- The investor; - The competent grid operator ("**CEDIS**").	Any time upon finalization of the above steps.	The power plant should be connected to the distribution grid. The investor should file request for connection to the competent grid operator (CEDIS). The procedure will be finalized by entering into an agreement between CEDIS and the investor regulating their mutual rights and obligations.
5.	Obtaining of construction permit.	- The investor; - The Ministry of Ecology, Spatial Planning and Urbanism.	Upon finalization of the steps above.	A permit for construction of renewable energy power plants must be obtained. Construction permit is issued by the Ministry of Ecology, Spatial Planning and Urbanism based on the following documentation:

				- preliminary design or main design, certified in accordance with the law; - positive report on the revision of the preliminary design or main design; - evidence of the right of ownership, or other right on construction land or building; - consent to the environmental protection study if the construction permit is issued on the basis of the preliminary design; - consent, opinions and other evidence determined by special regulations if the construction permit is issued on the basis of the main design, etc.
6.	Obtaining of use permit.	- The investor; - The Ministry of Ecology, Spatial Planning and Urbanism.	Upon finalization of all steps above.	For the power plants above 1MW capacity, a use permit is issued upon submission of the request of the investor to the Ministry of Ecology, Spatial Planning and Urbanism along with other required technical documentation, main design, audited main design, etc. The request for issuance of use permit is published on the internet page of the Ministry of Ecology, Spatial Planning and Urbanism.
7.	Issuance of licenses for production of electricity.	- The investor; - Regulatory Agency for Energy and Regulated Utilities ("**REGAGEN**"); - Ministry of Capital Investments ("**MCI"**);	Upon finalization of step above.	Two types of licenses/permits are set out by the Energy Act as follows: 1. Electricity producer performs the activity of electricity production based on the license issued by REGAGEN. The license is issued for a period of ten years. License is not required for electricity production plant with output power less than 1MW. 2. Electricity producer must obtain energy permit for power production plant with output power less than 1MW. Energy permit is issued by the MCI for a period of maximum two years. Energy permit is not transferable.
8.	Issuance of title deed for the power plant.	- The investor; - The competent municipality; - The Real Estate Cadaster Agency (the "Montenegro **Cadaster Agency**").	Upon finalization of step above.	The ownership title over the power plant should be registered in the real estate records of the Montenegro Cadaster Agency, which will issue a title deed for the same.

For power plants with a capacity of up to 1MW no regulatory rules exist at the moment, and each municipality has its own technical rules which must be observed. We have been informally told that each municipality requires more or less same documentation: (i) conceptual design, (ii) proof of ownership for land or buildings where construction will be carried out, and (iii) the request for issuance of a decision on urban and technical conditions to the local government authorities. In addition, CEDIS should be contacted as well to provide its technical requirements.

1.4.2.2. Photovoltaic power plants developed on buildings

Please note that current regulatory framework does not require any licenses or permissions to be obtained prior to instalment of PVPP with output power up to 30kW. However, CEDIS enacted in 2021, the technical requirements that PVPPs with output power up to 30kW must fulfil for the connection of the PVPPs to the distribution grid. According to these technical requirements CEDIS made difference between two categories of PVPPs:

- small PVPPs up to 10kW installed on an existing building, and
- small PVPPs up to 30kW installed on a new building and small PVPPs with power output exceeding 10kW but less than 30kW installed on an existing building which do not fall into category of ancillary building.

Provided that the technical requirements set by CEDIS are met, the investor developing the PVPP will be able to enter into connection agreement with CEDIS for the connection of the PVPP to the distribution grid.

For roof PVPPs above 30kW up to 999kW, as we mentioned in the previous page, no regulatory rules exist at the moment, but the municipalities determine their own requirements for development of this type of PVPPs. Additionally, for this type of PVPPs, the current regulatory framework requires that until 1 January 2025 all technical construction related documents are to be made based on the elaborate and static stability study of the building where PVPPs are to be installed. Please note that it is not clear what is the intention of the legislator to limit the application of this rule until 1 January 2025. This is a very recent change in the law, and we could not verify what was meant to be done after that date.

1.4.2.3. Projects for building energy efficiency

In Montenegro, building energy efficiency is regulated by the Law on Energy Efficiency and accompanying by-laws (in particular, Rules on building energy efficiency) which set out, among others, minimum criteria for building, reconstruction, or adaption of buildings with respect to energy efficiency (such as characteristics of coverall of the buildings and technical systems used in the building, etc.). The Law on Energy Efficiency is fully harmonized with EU Directives related to energy efficiency.

Investments for making buildings more energy efficient may be made upon obtaining the required permits for reconstruction or adaptation (depending on the type of works which need to be performed). In addition, upon completion of works, the investor is obliged to obtain an energy efficiency certificate from the authorized body and the competent ministry keeps the registry of issued energy efficiency certificates.

For the purposes of implementation of these types of projects, the below procedure needs to be implemented.

Table 10 – Projects for building energy efficiency in Montenegro

No.	Step	Responsible authority/party	Term	Comment
1.	Submission of request for issuing of an approval.	The investor.	This is the initial action.	The investor will need to submit a request to the body in charge for inspection of construction works where the investment is taking place for the issuance of the approval of works within 15 days prior to commencement of works. The request should be supported with adequate documentation, including audited adaptation or reconstruction design (as applicable).
2.	Review of the request and the submitted documentation.	The competent inspection authority withing the municipality.	Upon filing of the request.	The competent inspection authority will review the filed request and documentation.
3.	Issuance of reconstruction or adaptation permit.	The competent municipality.	Upon finalization of step 2 above.	If everything is in order with the filed documentation the competent municipality will issue the reconstruction or adaptation permit and will certify the reconstruction and/or adaptation design provided with the request.

1.4.3. Albania

1.4.3.1. Renewable energy power plants

Below are the regulatory steps to be undertaken for the development of renewable energy production projects (hydro, wind and solar power plants).

Table 11 - Development of renewable energy power plants (hydro, wind and solar power plants) in Albania

No.	Step	Responsible authority/party	Term	Comment
1.	Obtaining consent from the responsible energy operators.	- The investor; - OST; - OSHEE.	The initial step.	The first step of the process is the submission of applications with the respective energy operators, specifically with the Transmission System Operator (OST and Electricity Distribution Operator (OSHEE) in order to obtain a preliminary approval.
2	Environmental impact assessment (EIA)	- The investor; - The Ministry of Tourism and Environment.	Upon the finalization of step 1.	EIA is mandatory for all projects that may have a significant environmental impact. First, it is to be determined whether the project is subject to EIA, then the scope of EIA should be defined by assessing the potential environmental impacts. The EIA application is made online via the e-albania portal and can take from 15 to 60 days, depending on the type of application.
3.	Obtaining required environmental permits.	- The investor; - The National Environmental Agency.	Upon finalization of step 2.	The investor should obtain the required environmental permits for development of the power plant. The specific type of permit will depend on the type of project. This step could take from 44 to 64 days depending on the type of permit.
4.	Assessment of the land's legal status.	- The State Cadaster Agency.	Upon finalization of step 3.	In order to build power plants on land, the land should have the legal status of construction land (not agricultural land/field). In case it is an agricultural land/field, the investor should convert its status into land/ground. The change of the legal status of the land is done only by the approval of the Council of Ministers.
5.	Obtaining an authorization for development of PVPP (under and above 2MW) by the Ministry of Energy and Infrastructure.	- The investor; - The Ministry of Energy and Infrastructure.	Upon finalization of step 4.	The investor should submit the application with the Ministry of Energy and Infrastructure (MEI) along with the necessary set of documentation as per the requirements of the legislation in force. After the initial application the minister issues the preliminary approval. Once the preliminary approval is issued and in order to obtain the final approval, the applicant must submit additional documents as per the requirements of the legislation in force and within the time period defined in the preliminary approval. The MEI examines, within 20 calendar days, from the day of submission, the completeness and accuracy of all documents submitted by the applicant and issues approval for construction of the power plant.
6.	Obtaining an energy production license.	- The investor; - The Energy Regulatory Authority (the ERE).	Upon the establishment of the company in Albania as per the provisions	The license application is published by ERE within 14 days as of its receipt. The ERE board makes the final decision on accepting or rejecting the license application within 30 working days as of its publication. The ERE board

			of the local legislation and prior to the commencement of the energy activity.	may decide on a case-by-case basis to extend the term defined above when the documentation is not complete, but no more than 30 additional days.
7.	Grid connection.	- The investor; - The competent grid operator.	Upon finalization of step 6.	The power plant should be connected to the distribution grid or the transmission grid. The investor should file a request for connection to the competent grid operator. The grid operator will implement a procedure on the basis of the applicable network code. The procedure will be finalized by entering into an agreement between the operator and the investor regulating the details for the development of the connection.
8.	Certification for the production of electricity from renewable sources.	- The investor; - The ERE.	During the design phase or during the construction phase.	The investor who intends to receive the qualification of the power plant, submits to ERE a specific request in writing, including all information required by the legislation in force. The qualification certificate for the power plant has no expiry date. Its renewal is made only in the cases where major changes to the electricity production plants occur.
9.	Adoption of the required urbanistic planning documentation.	- The investor; - The competent municipality (mayor/head of municipality).	Upon finalization of step 6.	If the existing urbanistic planning documentation for the area does not envisage the renewable energy production projects, the process of approval defined by the law must be followed. The adoption of the urbanistic plan documentation is a multi-stage process (preparation, approval, publication, implementation).
10.	Approval of urbanistic design.	- The investor; - The competent municipality.	Upon finalization of step 9.	This step will be required if the urbanistic planning documentation (item 9 above) does not contain enough details for the development of the power plant. The urbanistic design should be prepared by a licensed company hired by the investor and approved by the competent authority.
11.	Water management consents.	- The investor; - Water Resources Management Agency.	Upon the preparation of the basic design.	For the purposes of development of hydro power plants the investor would need to obtain a water management consent, a consent for use of water and water discharge consent from the Water Resources Management Agency.
12.	Permit for transformational developments in the territory of Albania.	- The investor; - The National Institute of Cultural Heritage.	Upon finalization of step 9.	For projects of major developments, such as: power stations, roads, highways, airports, ports, industrial works, etc., before obtaining the relevant construction permit, the investor must obtain the approval for the project from the National Council of Material Cultural Heritage, according to the legislation in force. The estimated time for receiving the service is up to 60 days.
13.	Permit from the forest management authority for the	- The investor; - The body responsible	Upon finalization of step 9.	The investor should file to the body responsible for forest governance in the municipality a request for issuance of the permit if forest is part

	exercise of the activity for the use of the national forest fund for the interested subjects.	for forest governance in the municipality.		of the site where the project should be developed.
14.	Permit/approval from the pastures/meadow authority.	- The investor; - The regional directorate of the district forest service.	Upon finalization of step 9.	Entities seeking to perform activity in the grazing fund, are provided with a permit, which determines the requirements and conditions that must be implemented during the construction and exercise of the activity, to avoid or mitigate negative impacts on the environment. In order to be provided with the permit, the investor submits a request with the regional forest service directorate of the district, where it will exercise the activity.
15.	Risk assessment by the National Council of the Territory.	- The investor; - The National Council of the Territory (NCT).	Prior to the obtaining of the construction permit.	Prior to the obtaining of the construction permit the NCT should review the basic design for the project and should make an assessment on the vulnerability, risk and exposure of the structure.
16.	Technical opposition for the project from the Construction Institute.	- The investor; - The Construction Institute.	Prior to the obtaining of the construction permit.	The technical opposition for construction projects is applicable for construction projects with an estimated value of over ALL 100 million and for public projects and projects with public access regardless of the estimated value. The estimated time for receiving the service is up to 30 days.
17.	Obtaining a construction permit.	- The investor; - The competent municipality.	Upon finalization of the steps above.	A construction permit must be obtained. The application is made on the online system e-albania. The procedure should be finalized within 90 days. In this procedure the competent authority will calculate a fee which should be paid by the investor for the purposes of granting the construction permit.
18.	Issuance of title deed for the power plant.	- The investor; - The competent municipality; - The State Cadaster Agency.	Upon finalization of step 17 above.	The ownership title over the power plant should be registered in the real estate records of the State Cadaster Agency, which will issue a title deed for the same.

1.4.3.2. Photovoltaic power plants developed on buildings

The applicable law stipulates simplified procedures for installation of PVPPs on building's rooftops. In accordance with the metering scheme, the procedure is as follows:

- A small or medium-sized utility or a household customer can install a total capacity of up to 500 kW for the production of electricity from wind or solar for own consumption and inject the excess energy produced into the distribution network for certain compensation. (in this section the "**Own Consumption Roof PVPPs**");
- PVPPs installed on buildings not used for own consumption and/or exceeding the 500kW capacity (in this section "**Other Roof PVPPs**").

Below are the steps for installation of the above PVPP projects.

Table 12 - Development of Own Consumption Roof PVPPs in Albania

No.	Step	Responsible authority/party	Term	Comment
1.	Application of the authorization of implementing a PVPP.	- The investor.	This is the initial application.	The investor should submit the application at the governmental portal "e-albania" for obtaining the construction permit for addition to the existing building. This application should be followed with documents such as the professional license of the civil engineering company, property documentation, the design of the placement of the PVPP etc.
2.	The issuance of the permit.	- The respective municipality; - Territorial Development Agency	Upon finalization of step 1.	The respective institutions within ten days should evaluate the application and issue the permit for this addition, require additional information or reject the application.
3.	Development of the PVPP.	- The investor.	Upon obtaining the permit as per the steps above.	The PVPP should be installed by a licensed civil engineering company.

Table 13 - Development of Other Roof PVPPs in Albania

No.	Step	Responsible authority/party	Term	Comment
1.	Application for the authorization of implementing a PVPP (above 2 MW).	- The investor.	This is the initial application.	The investor should submit the application to the Ministry of Energy and Infrastructure (MEI) with the necessary documentation as per applicable law.
2.	Documents needed for the final approval of the MEI.	- The investor.	Additional documents.	After the initial application the minister issues the preliminary approval. After this approval the applicant submits to the ministry, within the time period defined in the preliminary approval, in order to obtain the final approval, additional documentation as required under applicable law.
3.	Granting of license.	- The Ministry for Energy and Infrastructure.	Upon completion of the required documents.	The construction of new facilities, which are not concession objects and have a production capacity above 2 MW, is done with the approval of the minister if everything is in order with the filed documentation.
4.	Development of the PVPP.	- The investor.	Upon finalization of step 3 above.	The PVPP should be installed by a licensed civil engineering company.
	Development of below 2MW roof PVPPs.	- The investor; - The Ministry for Energy and Infrastructure.	This is the initial application.	The investor should submit the application to the Ministry of Energy and Infrastructure, with the necessary documentation. The procedure is the same as the one for development of above 2MW PVPP, but with halved deadlines.

1.4.3.3. Project for building energy efficiency

According to the legislation and relevant instructions, investments for making buildings more energy efficient may be made upon obtaining the required permits for reconstruction or adaptation (depending on the type of

work which needs to be performed). For the purposes of implementation of these types of projects, the below procedure needs to be implemented.

Table 14 – Projects for building energy efficiency in Albania

No.	Step	Responsible authority/party	Term	Comment
1.	Submission of request for issuing of an approval.	- The investor.	This is the initial action.	The investor will need to submit an online application through the governmental website "e-Albania", to the municipality where the investment is taking place for the issuance of the appropriate adaptation or reconstruction permit. The request should be supported with adequate documentation, including reconstruction design, property documentation, payment of taxes etc.
2.	Review of the request and the submitted documentation.	- The competent municipality.	Upon filing of the request.	The competent municipality will review the filed request and documentation within five business days. Upon that, the municipality will submit the documentation for inspection by other relevant institutions, i.e.: entities responsible for infrastructure & energy.
3.	Issuance of reconstruction or adaptation permit.	- The competent municipality.	Upon finalization of step 2 above.	If everything is in order with the filed documentation and the tax for the relevant permit is paid, the competent municipality will issue the reconstruction or adaptation permit and will certify the reconstruction and/or adaptation design provided with the request, through the same online website as mentioned in item 1 of this table.

1.5. Tax relief

1.5.1. North Macedonia

There is no tax relief for any green projects in North Macedonia.

1.5.2. Montenegro

The Law on VAT prescribes exemption from VAT on the supply of products and services for the construction and equipping of an energy facility for the production of electricity with an installed capacity of more than 10 MW. The goal of such tax incentive is to increase RES electricity production.

1.5.3. Albania

Machinery and equipment imported exclusively to meet investment contracts worth ALL 500 million (approx. EUR 4,389,816) or more, are excluded from VAT on import (note: they are not excluded from customs duties, if any). The Decision of Council of Ministers No. 953, dated 29 December 2014, provides a list of machinery and equipment for investment contracts worth ALL 500 million (approx. EUR 4,389,816), and a list of machines and equipment, for the production of renewable energy from the sun, with installed power production over 0.5 MW, whose HS Codes are exempt from VAT on import.

However, the import of machinery and equipment is exempt from VAT only in cases where such machinery and equipment are imported for the purpose of carrying out investment contracts and the importer is the taxable person who makes the investment or uses the machinery or equipment. The import machinery and equipment for sale is not exempt from VAT.

2. Green Products

2.1. Ongoing and planned green projects and opportunities which require funding (including PPAs, corporates with green ambitions, solar producers and distributors, vehicle distributors, etc.)

Green projects are becoming increasingly popular in the region. There are a number of factors driving the growth of green projects, including increasing awareness of climate change and environmental issues, as well as the availability of funding and technical assistance from international organizations such as the European Union and the World Bank. These projects have the potential to not only reduce greenhouse gas emissions and mitigate climate change, but also to create new jobs and stimulate economic growth in the region.

Some of the major projects that are ongoing in the region are the following:

	North Macedonia	Montenegro	Albania
Ongoing projects (non-exhcaustive)	Virovi VE	Briska Gora Solar Power Plant	Devoll Hydropower plant
	Bogoslovec VE	Brajici Wind Power Plant	Fierza Hydropower plant
	Bitola SE	Gvozd Wind Power Plant	Vlora Wind Farm
	Oslomej SE	Komarnica Hydro Power Plant	Karavasta Solar Park
	Stipion SE	Ecological Reconstruction of TPP Pljevlja	Shala Hydropower Plant
	Chebren	Mozura Wind Farm	Spitalla Hydropower Plant
		Krnovo Wind Farm	Banja Floating Solar Plant
Planned green projects and opportunities	**PvPP in Pehchevo by HEC Solar** HEC Solar was granted status of strategic investor for investment in PvPP with a capacity of 70 MW in Pehcevo. The investment is estimated at EUR 53 million.	**Small Scale Solar Plants** – considering the potential of solar energy in the country, there are plans to develop such projects in the western part of Montenegro.	**Spitalla Solar PV Park** - a 100MW solar PV power project. It is planned in Durres, Albania. The project is currently in permitting stage.
	The Directorate for Technical Industrial Zones plans to enter into PPP agreement for building photovoltaic plants along with a private partner on a total area of 225.51ha, with a 40-50 MW installed capacity. The project is in a feasibility study preparation phase.	**The Slano Floating Solar Power Plant** –would be the first one of this type in Montenegro. The plan is to construct a solar power plant with a 50-MW installed capacity. The investor is EPCG, with the project in its research phase.	The Green for Growth Fund (GGF) has announced a EUR 28 million loan to provide funding for the construction and operations of a 50MW **solar plant in Topoje, Fier County, Albania**.
	Gas power plant- A 200 MW gas-fired power plant worth €100m is considered in Bitola, along with two units of 300-330 MW at Negotino.	**The Velje Brdo Solar Power Plant**. The existing spatial plan predicts building a solar power plant with a 50-megawatt installed capacity, with a possibility for extension.	Tender for individual **onshore wind power plant** projects with total tendered capacity of 100 MW and this may be increased to 150 MW.

2.2. Type of financing available for green initiatives (debt, equity, grants, etc.). Typical market terms for financing (e.g., interest rates, tenors, etc.).

Green finance is primarily composed of debt and equity financial instruments. These instruments possess various characteristics, such as their level of priority the means by which the flow of finance is organized, and the types of investors and investment vehicles involved in the process. Additionally, terms of the agreement and the source of funds are among the other key features of financial instruments. The growth of green finance markets in the region is still in development and it represents an emerging opportunity for both the private sector investment and project developers.

Green loans: These are loans specifically designed to fund environmentally sustainable projects, such as renewable energy installations or energy-efficient building upgrades. They typically offer low interest rates and flexible repayment terms. These loans can typically cover several areas such as home improvements, energy-efficient cars, solar panels, biogas, heat pumps, and other renewable energy sources. Various banks and financial institutions offer these loans in the region.

Grant funding: Government agencies, non-profit organizations, and international development organizations provide a range of grant programs that offer funding for sustainability-focused projects. These grants can either cover the entire cost of a project or offer partial funding that can be combined with other financing options.

Equity funding: Equity finance, including investments from venture capital firms, private equity funds, and impact investors, are one of the funding options for green projects. These types of investors often seek opportunities that align with their environmental and social impact goals, making green projects attractive for

investment. Equity funding is still in its nascent stages of development and remains relatively infrequent in the region.

2.2.1. North Macedonia

North Macedonia embarked on mainstreaming the 2030 Agenda for Sustainable Development into its National Sustainable Development Plan in December 2015 and adopted the SDG Plan 2016-2030. To lay the foundations for implementation of the 2030 Agenda, the government has undertaken a joint initiative with the UN to integrate the SDGs into the national planning process.

When it comes to investment organizations in North Macedonia, they take into consideration the "green factors", but this is limited to certain investment programs, usually specifically developed towards sustainability and increase of energy efficiency. Below is the list of identified organizations which support green financing.

Implemented by:	**NLB provided by EBRD**	**Fund for Innovation and Technology Development supported by UNDP**	**Sparkasse provided by EBRD**	**Silk Road Bank provided by EIB**	**ProCredit Bank**	**Halk Bank by GGF**
Eligible Entities	Individuals	Private sector businesses	Individuals	Private sector businesses	Private sector businesses / Individuals	Private sector businesses
Maximum Loan Amount	**Consumer Loan** MKD 1.500.000 Without mortgage MKD 6,000,000 With mortgage **Real estate Loan** EUR 300.000 **Car loan** MKD 3.000.000 with insurance MKD 1.500.000 without insurance	EUR 30.000 Grant from FITR	EUR 50.000	EUR 10.000 – 1.000.000	Amount of the loan depends on the needs and the business of the client / EUR 15.000 for indviduals	• Up to EUR 500,000 for sub-loans to small and medium-sized enterprises (SMEs), large businesses, municipalities or public sector enterprises for standardized and non-standardized measures; • From EUR 500,000 to EUR 10,000,000 for subloans for larger small and medium enterprises (SMEs), large businesses, municipalities, or public sector enterprises.
Loan Period	**Consumer loan** Up to 120m without mortgage Up to 240m with mortgage **Real estate loan** Up to 360m **Car loan** Up to 95m	n/a	Up to 95 months	Up to 120 months	Up to 120 months / Up to 7 years for individuals	Not later than 30.11.2024
Interest Rate	**Consumer loan** 5.91% variable **Real estate loan** 3.45% fixed for first 5 years 3.95% fixed for 10 years **Car loan** 5.11% variable	n/a	5.80%	2-3%	4.5% / 5-7% for individuals	5.3% fixed per year, for short-term loans 5.3 % + 6m EURIBOR per year, for long-term loans
Participation	n/a	15%	2%	20%	10% / n/a for individuals	1% of the loan amount, one time, in advance.
Grant for end users	n/a	85%	20%	n/a	15-20%	n/a
Objective	Financing projects for energy efficiency and renewable energy sources	Program for financing of sustainable/green solutions with 85% grant, 15% co-financing) Competitors should offer solutions contributing to reducing the greenhouse gas emissions or enhancing resilience	Increase of energy efficiency of objects by implementing some of the following: • Windows, doors and glazing • Isolation • Biomass furnaces/boilers • Gas boilers • Solar collectors for hot water	Dedicated consumer credit for legal entities - financing projects for the use of renewable energy sources, improving energy efficiency and	Investments in fixed assets that provide a minimum of 20% energy savings of electricity / Eco credit for individuals is a dedicated credit for	The credit provided by GGF enables Halkbank through its eco credit products to provide financing for energy efficiency (EE) projects, such as the replacement of energy inefficient heat supply systems and the upgrading of external wall and roof installation, heating systems and lighting and other devices. Credit products for EE that are aimed at business customers include the replacement and/or

		to climate change (climate change adaptation measures) in one of the following areas, either at national or regional level: • Energy • Industry • Transportation • Agriculture • Forestry • Biodiversity • Healthcare • Water resources • Disaster risk reduction	• Photovoltaic systems • Heat pumps • Lighting • Balanced mechanical ventilation • Storage water heaters for hot water	saving electricity (for procurement and installation)	energy efficient investments	upgrading of energy-inefficient production equipment and the rest of the equipment used during production processes.

Apart from the above-mentioned institutions both EBRD and UNDP in North Macedonia are taking into consideration the Green Agenda aspects and other sustainable and SDG indicators in development of their portfolio and investments / projects.

Furthermore, KFW as one of the world's leading promotional banks committed to improvement of economic, social and environmental living conditions is supporting the green projects in the country. Development of sustainable economic structures in developing and emerging economies are the main KFW's business objectives. KFW is supporting several energy projects in North Macedonia, such as:

- **District Heating Bitola** - Purpose of the project is replacement of the usage of electricity, oil and wood for heating resulting in reduction of greenhouse gas emmissions and improvement of the safety and reliability of the distribution network. The project started in 2015 with total value of EUR 39 million;
- **Wind farm Bogdanci – Phase II** – Installation of 6 turbines in the Bogdanci farm with installed capacity of 13.8 MW. The aim of the project is to achieve additional annual production of 37 GWh sustainable energy. The project started in 2018 with total value of EUR 18 million;
- **Energy efficient rehabilitation of student dormitories in North Macedonia** – Energy efficiency measures for student dormitories including measures for complete reconstruction. The project started in 2019 with total value of EUR 20 million. Detalies on the terms of financing of these projects are not publicly availabe.

Green Financing Facility- North Macedonia - North Macedonia's joint programme for establishing a Green Financing Facility (GFF) was among a total of ten programmes considered as the most impactful, with greatest co-financing leverage and investment-ready by the Joint SDG Fund. The SDG Fund is an international multi-donor and multi-agency development mechanism established in 2014 by the UN to support sustainable development activities through integrated programs.

With the financial support from the Joint SDG Fund, this programme will set-up a new financial vehicle, that will provide access to affordable green financing for Small and Medium Size Enterprises (SMEs) and for individuals and households (including marketable but underserved individuals and households) for investments in renewable energy (RE) and energy efficiency (EE) solutions. SDG Fund partners with world renewed SDG financing leaders from commercial banks, investing firms, venture capital and international financial institutions. With these investments, GFF will directly contribute to the reduction of greenhouse gas emissions and air pollution and strengthen the local ecosystem for RE & EE green finance. To help the country in combating air pollution and climate change, in addition to the United Nations organizations involved (United Nations Development Programme - UNDP, United Nations Economic Commission for Europe - UNECE and the International Organisation for Migration - IOM) and the Government (represented by the Deputy Prime Minister of Economic Affairs, as well as the Ministry of Finance, Ministry of Economy and Ministry of Environment and

Physical Planning), the programme will also bring together the European Bank for Reconstruction and Development (EBRD) and most of the private banks from the country .

Through the Facility, EBRD will provide finance to participating local banks which will on-lend these funds in the form of sub loans to SMEs for investments into RE and EE solutions in their business. UNDP, with funds from the Joint SDG Fund, will contribute support in the form of performance-based payments for verified investments and technical assistance for loan application development and project verification The Government of the Republic of North Macedonia will provide co-funding to GFF in the amount of 800,000 USD. EBRD and the private sector (local banks) will be included in the implementation of this project.

2.2.2. Albania

To support the implementation of the Agenda 2030, Albania has prepared an SDG baseline report which indicates that 140 SDG targets (83% of the SDG targets) are directly tied to specific components of the National Strategy for Development and Integration pillars. This shows that the country commits to the implementation of the Green agenda.

However, the focus on ESG within the private sector remains to be addressed since the number of companies that focus on this framework remains low. Some of the available types of green financing in Albania, including those coming from international organizations, investment and development banks are:

EBRD as one of the largest financier and enabler of renewable energy in the Western Balkans, it is also supporting numerous projects in Albania, some of them being the Karavasta Solar Project, the EBRD has helped the Albanian authorities with a solar PV auction at Spitalla and it is currently assisting with a 150 MW onshore wind auction. Besides the above mentioned, EBRD is also working with commercial banks providing different credit lines.

KfW in Albania primarily supports projects in the energy sector (energy efficiency and renewable energy) and in municipal infrastructure (water, wastewater, waste disposal). KfW supports investments in the expansion of high-voltage networks. Moreover, KfW's assistance enables Albania to finance transmission and distribution stations, enhance the security of hydropower dams, and improve energy efficiency in public buildings. One of the last projects financed by KfW is the fifth phase of a programme for improving the water supply and sewerage network of eight municipalities in the amount of 80 million euro. The financing terms for the project were not disclosed publicly.

There are 2 commercial banks **(ProCredit & Union Bank)** that use a credit line provided by EBRD where the funds will be used to support investments in high-performance energy efficiency projects in privately owned residential dwellings or buildings. Clients will be able to invest in insulation, solar panels, efficient boilers, and other green technologies.

Union Bank received a loan of EUR 6 mil to boost energy efficiency while ProCredit received a loan of EUR 3mil for residential energy efficiency investments.

The green financing loan from ProCredit Bank Albania is used for photovoltaics for small, medium, and large businesses, as well as individuals who want to invest in their own homes. The loan period is up to 7 years with an interest rate of 3,00% and the maximum loan amount is EUR 1mil. The credit line is part of the Western Balkans Green Economy Financing Facility (GEFF), which promotes energy efficiency improvements in the residential sector, and is co-financed by the European Union (EU), Austria and bilateral donors of the Western Balkans Investment Framework (WBIF).

2.2.3. Montenegro

Montenegro was among the first countries in the South-East Europe region that defined the strategic and institutional framework for sustainable development, in accordance with the standards of the developed EU member states. It has officially adopted a key development document – National Strategy for Sustainable Development until 2030, which follows the UN Agenda 2030 and SDGs. Montenegro expressed its full

commitment to the priority issues of sustainable development: introduction of a green economy, strengthening the efficiency of use of natural resources, climate change, conservation of sensitive ecosystems and coastal areas, and sustainable production and consumption.

CKB Bank as one of the commercial banks in Montenegro offers loans for improvement of energy efficiency for individuals. The loans range from EUR 3.000 to EUR 25.000 with a loan period of 73 to 120 months and an interest rate of 8.99%. This loan is supported by EBRD (The Green Economy Financing Facility).

Apart from commercial banks, in 2022 The Investment and Development Fund of Montenegro (IDF) has secured EUR 50 mil from the European Investment Bank (EIB) to support green recovery and decarbonization of the economy. The loan will help small businesses implement energy-saving measures and the recovery of the economy from COVID-19. The IDF supports two credit lines:

- "Investment credits to support infrastructure, protection projects. environment and energy efficiency" where loans range from EUR 10.000 to EUR 10mil. And the maximum loan period is 180 months with 5% interest rate.
- "Investment loans to support green field and brown field investment" where loans range from EUR 10.000 to EUR 10mil. And the maximum loan period is 144 months with 5.40% interest rate.

As it was the case with North Macedonia and Albania, EBRD and KfW are also one of the most significant green lenders in Montenegro. KfW actively promotes the energy-efficient renovation of public buildings in various sectors such as social, administrative, and schools. Through the initial two phases of the "Energy Efficiency in Public Buildings" program, approximately 36 buildings have already undergone renovations, amounting to around EUR 35 million, with the objective of improving energy efficiency. In 2021, a third phase of the program commenced with funding of EUR 50 million (a loan of EUR 45 million and a EUR 4.8 million grant). The loan has a duration of 15 years of which the first five are the grace period, with a fixed interest rate of 1.06%

Furthermore, KfW is providing financing for the modernization of two hydropower plants, Perucica and Piva in the amount of EUR 33 million. These power plants currently have outdated machinery, control systems, measuring equipment, and protection systems. KfW's investments in these projects aim to extend the lifespan of the power plants and enhance their operational efficiency.
Among its various initiatives, the bank provided support for the construction of a wastewater treatment facility in Podgorica. This project, with a total value of EUR 50.35 million, received financial assistance from KfW in the form of two loans: one amounting to EUR 30 million and another amounting to EUR 5 million. Additionally, the project also received a grant of EUR 10.15 million from the Western Balkans Investment Framework (WBIF), in collaboration with KfW.

2.3. Historical funding of green initiatives – projects, funders, terms of funding, etc.

Listed below are some of the major green projects in North Macedonia, Albania and Montenegro, along with the financing provided for the projects where public data was available.

2.3.1. North Macedonia

Bogoslovec wind farm

- The 36 MW Booklover wind farm is owned by local company **BNB Kompani and Green for Growth Fund (GGF).**
- The project includes EUR 51 million in financing by Erste Group and local lenders, and EUR 10 million by OeEB. This is the first ever equity investment of the Green for Growth Fund.

- Erste Group arranged and structured the transaction and invited local banks, including Sparkasse Bank Makedonija, to be among the institutions providing financing with a 17-year tenor. The debt package for Bogoslovec also includes a junior debt tranche of EUR 10 million from Oesterreichische Entwicklungsbank AG (OeEB), the development bank of Austria.

Bogdanci wind farm

- The Bogdanci wind farm is built by ESM in two phases. This second phase of the project is planned to be completed by the end of 2024 with a total expected annual electricity production of approximately 160GWh.
- On behalf of the German Federal Government, KfW made an amount of EUR 48 million available for the first phase – about 80% of the total costs. EUR 18 million were made available for the second phase. The repayment of the loan shall be 12 years, including 3- year grace period. The Loan shall be paid in semi-annual instalments, AD ELEM shall pay KfW Development Bank management fee in the amount of 0.75% of the loan amount and commitment fee in the amount of 0.25 % annually. The interest rate of the loan is 2.5% fixed interest rate.

Bitola and Oslomej

- EBRD provided EUR 25.5 million for implementation of ESMs Solar PV Transition Project, including the construction of Oslomej 2 Photovoltaic Power Plant 2 with installed capacity of 10 MW and Bitola Photovoltaic Power Plant with installed capacity of 20 MW. The loan has a repayment period of 12 years, with a grace period of two years. The financing also includes technical assistance to support project preparation, procurement, and implementation. The loan was provided on commercial terms, which means that it included interest and fees that were based on market rates. Additional EUR 5 million for the respective Project is provided as WBIF instrument grant.

Chebren Hydro

- Cebren is a 333MW hydro power project. It is planned on Crna Reka river/basin in Pelagonia, Macedonia. The project cost is expected to be around EUR 553m. In order to assist with the realisation of this project, the WBIF has provided a €1 million technical assistance grant for the preparation of the Feasibility Study and Environmental and Social Impact Assessment, EBRD is providing a loan of EUR 36.4 million and ELEMs own contribution is 82,800m.

2.3.2. Albania

Devoll Hydropower plant

- The project was developed by Norwegian power company Statkraft and Albanian state-owned power company KESH and was funded by the European Bank for Reconstruction and Development (EBRD) and the International Finance Corporation (IFC). The investment cost is estimated to be approximately EUR 590 million.

Fierza Hydropower plant

- The Fierza hydropower plant in the north of Albania is set to be reconstructed to increase output by at least 10% as a part of the EUR 50 million project. The Fierza Hydropower Plant has an installed capacity of 500 MW and consists of three units, each with a capacity of 167 MW. The upgrade of the plant was funded through a combination of government funds and loans from international financial institutions. State-owned power utility KESH has signed loan and grant agreements worth more than EUR 50 million in total with Germany's KfW Development Bank. They were complemented by a grant of EUR 8.35 million within the Western Balkans Investment Framework.

Karavasta Solar Park

- Karavtsa is a 140 MW solar park, implemented by Karavasta Solar LLC, a special purpose vehicle incorporated in Albania, 100% owned by Voltalia SA, an international renewable energy company listed on Euronext Paris. The Project is located in the County of Fier in the West of Albania, approximately 112km west of the capital city of Tirana. It is adjacent to the Divjaka-Karavasta National Park, which contains the Karavasta lagoon, the largest in Albania and one of the largest adjoining the Mediterranean Sea. The project's total cost of €135 million is co-financed by the International Finance Corporation (IFC), Intesa Sanpaolo Bank Albania, Privredna Banka Zagreb and by Voltalia's own resources. The EBRD is anchoring the €99 million financing structure required to implement the project and is mobilising significant and innovative commercial debt participation. EBRD leads syndicate of IFC, Intesa Sanpaolo Bank Albania, Privredna Banka Zagreb in co-financing Karavasta solar plant in Albania. The EBRD is lending EUR 29 million. IFC is considering providing an IFC A loan of up to EUR 25 million and an IFC B loan of up to EUR 11 million.

Banja Floating Solar Plant

- The project involves the installation of floating solar panels on the surface of the Banja reservoir, which would be connected to the electrical grid through a substation on the shore. The proposed capacity of the Banja Floating Solar Plant is 2 MW, which would make it one of the largest floating solar power projects in Europe. This floating solar technology is developed by the Norwegian company Ocean Sun and was implemented with an Albanian company, Doko. EBRD has provided EUR 7.5 million funding as a loan and WBIF has provided a grant of EUR 2.7 million, which rounds to a total of EUR 12 million funding, including the national contribution of EUR 1.9 million.

2.3.3. Montenegro

Krnovo wind farm

- This renewable energy project is located in central Montenegro and was funded by the EBRD. The purpose of the project is to increase the share of renewable energy in Montenegro's energy mix and reduce greenhouse gas emissions. The EBRD provided a loan of EUR 48.5 million for the construction of the wind farm, which has a capacity of 72 MW and consists of 26 turbines.

Mozura wind farm

- The Možura wind farm was built by a consortium of Maltese state-owned power utility Enemalta and China's Shanghai Electric Power Company. Investors have leased state land for a period of 20 years. The state has pledged to guarantee a fixed electricity price of EUR 95.99/MWh and EUR 115 million in incentives over the first 12 years of operation. The wind farm has 23 turbines, which are expected to produce 112 GWh of electricity annually.

Brajici wind farm

- The 30-year contract for the long-term lease of state-owned land was signed in August 2020. Germany's WPD should invest EUR 100 million to project, construct, and manage a new 101-megawatt wind farm.

Komarnica hydro power plant

- The contract for the development of a conceptual design with a feasibility study and environmental impact assessment, worth EUR 1.3 million, was signed in 2018. The completion of these activities is scheduled for the middle of 2022. According to preliminary data, the project is valued between EUR 260 and 290 million, with an installed capacity of 155 megawatts and an annual production of about 210 gigawatts.

Gvozd wind farm

- EBRD provides EUR 82 million senior secured corporate loan to Elektroprivreda Crne Gore AD Niksic ("EPCG"), the Montenegrin national power utility, and to Green Gvozd LLC, a special purpose vehicle to be fully acquired by EPCG, for the purpose of financing the acquisition, development, construction and commissioning of a 54.6 MW wind power plant located near village Gvozd, municipality of Niksic, Montenegro.

Briska Gora Solar Power Plant

- The contract for the long-term lease of state-owned land for its construction was signed in December 2018. The investor is a consortium consisting of EPCG (the national energy company), Fortum, and Sterling & Wilson. The contract was concluded for a period of 30 years, with a EUR 200 million investment value. The investor has to project, construct, and manage a solar power plant with an installed capacity of 250 megawatts.

2.4. Competition analysis – identify existing green funders in the region and historical terms of funding they provided.

Several banks and financial institutions have provided financing for green projects in the region. In general, funding provided by these organizations may take the form of loans, grants, or technical assistance and may be provided over a period of several years. The terms of funding are typically negotiated on a project-by-project basis and may include conditions related to project implementation, performance, and monitoring. In the previous section information on some of the financing details of different projects is provided. All the lenders/donors that are presented in the table below are still active.

3. Commercial & Industrial (C&I):

3.1. Overview of the Commercial and Industrial solar (C&I) market, mapping of main C&I players with respective market shares and their equity and/or turnover, in the countries, main features/profile of each of these players

3.1.1. North Macedonia

North Macedonia has shown significant potential for renewable energy development, including solar energy. The country has a target to achieve 28% of its energy from renewable sources by 2025, and solar energy is expected to play a vital role in achieving this target.

Although the C&I solar market in North Macedonia is still in its early phases, businesses and investors are becoming more interested in the industry. The accomplishment of environmental objectives and the decrease in energy costs are the primary forces behind the deployment of solar energy in the C&I industry. The government also offers financial incentives to companies that make investments in renewable energy.

In North Macedonia, a number of businesses currently provide commercial and industrial clients with solar panel installation services. These companies offer turnkey solutions, including site assessment, system design, installation, and maintenance.

Some of the major market players are:

- **KMG EOL KVAZAR DOOEL** Skopje-established in 2007 with the aim of designing and offering solutions for saving electrical energy using innovative solar products which, in addition to saving electricity, also help in protecting the environment in the fight against climate change.
  The company offers a wide range of solar products such as: autonomous solar systems for power supply, hybrid systems for home power supply, solar power plants, solar systems for street, park, home lighting, as well as a wide range of LED lights, which in addition to their use in some of these systems, can also be used for everyday lighting needs by replacing any type of existing lighting fixtures or for decorative lighting. Their services also include procurement of equipment for solar systems and LED lights, installation and installation, maintenance of systems, replacement of existing lighting, turnkey systems, and creating projects according to individual customer requirements. The total revenue of the company in year 2021 was EUR 4.5 million, net profit was EUR 0.7 million and had 32 employees.
- **Intebako DOO Skopje-** Intebako is a renewable energy company that specializes in EPC (engineering, procurement, and construction) for solar power systems. The company offers full turnkey solutions for businesses or commercial power plants. Interbako is a Huawei Silver Enterprise Partner. With this partnership, the company is able to offer the latest and greatest technology in the industry. In 2021, the company reported revenues of EUR 3.4 million, net profit of EUR 0.3 million and had 22 employees.
- **PiKCELL Group** founded in 2018 in Skopje, is a high tech company for production and development of monocrystalline and polycrystalline photovoltaic solar modules and photovoltaic thermal modules. The total revenue of the company in year 2021 was EUR 2.8 million, net profit was EUR 0.4 million and had 22 employees.
- **Solar Spektar-** Solar Spektar AG is continuously growing company on the domestic market and gradually acting on the markets in the neighbouring countries, making the company one of the leading providers of services and solutions in terms of designing and construction of solar electric power systems. The engineering staff in the company is fully trained in Germany and possesses all the necessary certificates for quality engineering, supply and performance of solar electric power systems. The total revenue of the company in year 2021 was EUR 4.2mil, net profit of EUR 0.8mil and had 25 employees.

- **EVN** - EVN is a leading international publicly listed company providing services in the area of energy and living environment. EVN offers a complete turnkey solution for photovoltaic systems for all businesses in Macedonia. There is no separate financial information on the revenues that the company is generating from these solutions.

Overall, the C&I solar market in North Macedonia is still in its nascent stages, but it has significant potential for growth in the coming years as more businesses seek to reduce their energy costs and achieve their sustainability goals. While there is no specific data available on the size of the C&I solar market in North Macedonia, the increasing awareness and interest in renewable energy sources, including solar energy, indicate that the market has significant potential for growth. From interviews conducted with solar market players, the market share of the above mentioned companies combined is about 85% of the total market. The information is not confirmed by an official source.

3.1.2. Montenegro

The C&I solar market in Montenegro is still in its early stages, and there are relatively few companies offering solar energy solutions specifically for this sector. However, there are opportunities for international companies with experience in the solar industry to enter the market and provide cost-effective and reliable solar energy solutions. Overall, the C&I solar market in Montenegro has significant growth potential, especially given the country's strong commitment to renewable energy and the need to reduce energy costs in the business sector.

- **EPCG –Solar Gradnja DOO** - EPCG-Solar Gradnja is a daughter company of the state-owned Electric Company of Montenegro with the main aim to implement EPCG's Solari program, which involves installing solar panels on the roofs of households and companies with the help and subsidies of this company. EPCG-Solar gradnja has already started to expand its scope of business beyond the Solari project, they specialize in installation, and maintenance of solar power systems for residential, commercial, and industrial customers. They offer a range of services, including energy consulting, system design, installation, and monitoring. EPCG Solar Gradnja will be the contractor during the construction of three projects for the production of energy from renewable energy sources developed by the private company Obnovljivi izvorni energija, registered in Podgorica, namely the solar power plant Čevo, with a capacity of 225 MW, and the wind farm Bijela, with a capacity of 118 MW, and the Korita wind farm. In 2022 the company had revenue of EUR 2.97mil. and net loss of EUR 2.2mil and in 2021 they had a profit of EUR 40 thousand and net loss of EUR 55 thousand.

- **Sistem – mne DOO-** The company Sistem-mne d.o.o. was founded in 2013 as a daughter of Sistem d.o.o., founded in 2003. The company is specialized in projects of renewable energy sources and energy efficiency, which, as a daughter of the company Sistem d.o.o., takes over all its references**.** The company had revenue of EUR 1.4mil. in 2022 and EUR 864 thousand in 2021 with net profit of EUR 611 thousand and EUR 1.046 respectively. They had 10 employees in 2022.

- **BB Solar**- The company deals with all alternative sources of energy with a special emphasis on solar systems. In addition to systems for renewable energy sources, the company provides services for all type of electrical installations, as well as the wholesale of electrical equipment and LED lighting. In 2022 they had 34 employees and the company marks revenue of EUR 6.7mil. and EUR 9.6mil in 2021. Their net profit is EUR 125 thousand and EUR 764 thousands respectively.

3.1.3. Albania

The RES market in Albania is predominated by hydro and is just recently started to harness the solar potential. There is very limited information on the size of this market in Albania. Some of the companies operating in the field are listed below:

- **Eco Sun Albania** - Trading company "ECOSUN ALBANIA" SHPK, is an Albanian company, part of a large group of traders, with long and successful trading experience in the implementation of projects for the

construction of photovoltaic plants and parks. The company deals with design, construction, installation and marketing of renewable energy systems, solar farm parks, wind parks through turbines and hydroelectric systems used for self or others. Construction of production plants for the production of renewable energy. Electromechanical and geothermal projects that bring energy savings in industrial buildings of private, public and state companies.

- **Albanian Green Energy**: A renewable energy company that provides solar energy solutions for commercial and industrial clients. The company's services include production, transmission, distribution and sale of electricity as well as design, construction, rehabilitation and powering of power plants and plant infrastructure. and research and development of plants and apparatus for energy production. The company offers technical assistance, repairs and maintenance of energy production equipment. In 2020 the company marked EUR 1.9mil. turnover and profit of EUR 434 thousand.
- **Limak Renewables**: Limak Renewables is a well-known renewable energy company in Albania, offering various solar solutions for commercial and industrial clients. The company's services include project development, engineering, procurement, construction, and commissioning of solar energy systems. One of their projects was the Banja Bam and HEPP with clay core, sand-gravel fill body. The body volume is 4.5 million cubic meters. The total height from the foundation is 80 meters and the installed power is 63.4 + 7 MW. The project, which has been started in July 2013, has been completed in 2016 and has started to generate electricity. Another project is the 185 MW Moglicë dam and hydroelectric station.
- **EuroElektra sh.p.k:** EuroElektra Sh.pk, present over 12 years in the market, is one of the leading companies in the trade of electrical materials and renewable energy, offering solutions through the most advanced technology projects in Albania and the region. It is present with innovative solutions for energy management systems such as "solar energy" and "electric car chargers". Provides design services and promotes advanced systems for buildings, commercial, industrial and residential. Also offers wholesale of electrical materials. In 2020 the company had a revenue of EUR 2.2mil. and profit of EUR 560 thousand.
- **Vega Solar:** Vega Solar is a German-Albanian renewable energy company focused on the photovoltaic sector. The professionalism of the team and the high quality of the products that our company offers have played an important role too. Vega Solar offers a wide range of quality products from well-known German, Austrian, Italian and Swiss firms, which for years have won first prizes for quality. Some of them are Luxor, Fronius, SMA, K2 Systems. The company has a turnover of EUR 1mil in 2021 and a profit of EUR 142 thousand.
- **Enercom:** The company offers services in the field of electronic telecommunications, as well as traditional, solar, and renewable energy. Their expertise lies in the design, installation, operation, and maintenance of telecommunication networks in fiber optic, cable, and aerial (microwave) environments and cater to a wide range of clientele, including operators and private/public institutions, military, industrial, business, and residential facilities.

3.2. Regulatory overview and policies for IPPs and C&I market in the respective countries

3.2.1. North Macedonia

Area	Topic	Sub-topic	Description
Legislation	**Applicable regulation**	**/**	The Law on Energy is the general legal framework regulating the operation of the IPPs and the C&I solar market. The law and the related bylaws regulate the licensing process for IPPs, the rules for supply of electricity, the rules for production of electricity from renewable energy sources, the operation of the energy market, the production, transmission, distribution, trade and supply of electricity etc.
Competent Authorities	**Energy Regulatory Commission (ERC)**	**/**	The ERC is a state body functioning in the form of seven-member commission with one president all appointed by the Parliament upon proposal of the Government of North Macedonia. The commission members are with five years' term. The ERC is the regulator of the Macedonian energy sector. Its competences include: (i) adoption of the required rulebooks, tariffs and other bylaws related to the energy sector; (ii) approval of network rules of the licensed transmission and distribution companies, balancing rules, rules for export of energy etc.; (iii) issues the energy licenses; (iv) maintains registries; (v) monitors the Macedonian energy market. etc.
	Energy Agency	**/**	The Energy Agency is established with a separate law for the support of the implementation of the energy policy of North Macedonia. From the energy regulatory point, the Energy Agency maintains a separate registry of renewable energy sources power plants and issues confirmation that the relevant RES power plants are properly developed.
Overview of the energy market	**General overview**	**/**	The wholesale electricity market is open and liberalized since 1 July 2019. All IPPs may participated on the electricity market, provided that the same are duly registered in the registry of market participants maintained by the licensed electricity market operator.
	Market participants	**IPPs**	IPPs perform activities related to production and sale of electricity to all other market participants on the Macedonian market and abroad under the terms of the electricity production license issued by the ERC. IPPs may also be licensed to be virtual IPPs who perform commercial and technical integration to other renewable energy sources IPPs and centralization of their production for optimization purposes in order for all such IPPs to act as one IPP on the energy market.
		Transmission System Operator (TSO)	The state - owned joint stock company MEPSO is the TSO for electricity licensed by the ERC. MEPSO is the owner of the electricity transmission infrastructure in the country and performs only the activities related to the transmission of electricity. The Ministry of Transport and Communications (MTC) is the sole shareholder of MEPSO. The MTC has exclusive competences and resources to exercise control over MEPSO and will act

			independently when adopting decisions for appointment of the members of the supervisory or management board of MEPSO and may not accept directions and guidance from the Government of North Macedonia. The TSO is also authorized to grant cross border capacities for export and import of electricity from and to North Macedonia.
		Distribution System Operators	In North Macedonia there are two electricity distribution systems, one operated by Elektrodistribucija DOOEL Skopje and the other one by AD ESM- Subsidiary Energetika. Elektrodistribucija DOOEL Skopje is a part of a vertical integrated undertaking- EVN AD Skopje (part of the Austrian based group EVN AG) operating in the electricity supply and generation chain. Based on the requirements of the Law on Energy, EVN AD Skopje as an owner of the electricity distribution infrastructure has established Elektrodistibucija DOOEL Skopje as an independent entity in terms of a legal form, organization and decision making from other activities not related to distribution. AD ESM - Subsidiary Energetika is a closed DSO within the state-owned electricity generation company - AD ESM, serving less than 80 customers in a specific area and therefore is exempted from the legal unbundling requirements.
		Electricity Market Operator (EMO)	EMO performs the activities related to the organization, functioning, and development of markets with bilateral agreements, the spot market, and the day-ahead market (the latter two are in the process of establishment). The National Electricity Market Operator of North Macedonia (MEMO) is a subsidiary fully owned by MEPSO. Having its own legal form, it is functionally independent from the TSO. MEMO should provide a secure and transparent trading environment, providing each market participant with fair and equal access to the market. MEMO also maintains registry of all market participants (including IPPs).
		Electricity suppliers	Electricity suppliers are licensed to procure electricity from North Macedonia and abroad for sale to their consumers, other suppliers, traders, the TSO, the distribution system operators and other market participants. In addition to regular suppliers, the law recognizes (i) a universal supplier who supplies households and small consumers with electricity; and (ii) last resort supplier who supplies with electricity consumers who, due to any reason, has remained without a regular supplier. Both the license for universal supplier and last resort supplier are issued to EVN Home DOO Skopje, a company part of the EVN AG group.
		Electricity traders	Electricity traders are licensed to procure electricity from North Macedonia and abroad for sale to other traders, suppliers, the TSO, the distribution system operators, and consumers who are authorized to individually participate on the energy market, as well as for sale of the electricity abroad.
		Consumers who may directly	Consumers connected to 110kV or higher voltage level may individually participate on the energy market and procure electricity from IPPs, virtual IPPs, suppliers and traders of electricity from North Macedonia or abroad.

		participate on the energy market	
	Electricity trading	**/**	The wholesale trading on the Macedonian market is based on bilateral contracting upon a free-market negotiation of prices based on PPAs. Trading takes place outside the power exchange and prices are not made public. The electricity day-ahead market (spot market) and the intraday market are still not operational; however, a regulation has been adopted and it is intended for the same to begin operation within 2023.
	Balancing	**/**	IPPs have balance responsibility in relation to the energy they produce. For the purposes of fulfilling its balance responsibility an IPP may: (i) register itself as balance responsible party and form a balance responsible group consisting of one or more electricity market participants, where it will take over the full balance responsibility of the group and submit daily physical schedules (nominations) for the group and be responsible towards the TSO; or (ii) become member of already existing balance responsible group where another person is the balance responsible party. The relations related to balance responsibility are regulated by way of agreement entered between the members of the balance responsible group.
Establishment and operation of IPPs	**Who can establish and IPP?**	**/**	Power production activities may be performed by domestic and foreign entities that have acquired a power production license from the ERC.
	Licensing of IPPs	**/**	IPPs may perform their power generating activities upon obtaining of final electricity generating license. Prior to the final license the IPP may obtain temporary license (this license is issued for performance of the required tests for putting a new power generating facility in operation) and probatory license for a period of up to nine months. The final license for electricity generation could be issued to up to 35 years, with a possibility to extend its duration.
Renewable energy	**RES IPPs registry**	**/**	IPPs producing energy from renewable energy sources should also be registered in a separate registry maintained by the Energy Agency.
	Market participation	**/**	IPPs producing energy from renewable energy sources are eligible to participate on the Macedonian energy market as any other IPP.
	Guarantee of origin	**/**	An IPP producing energy from renewable energy sources could buy a guarantee of origin for the generated electricity. A guarantee of origin labels the origin of the electricity and prove to the final customer that a given quantity of energy was produced from renewable energy sources.

	Preferential IPPs	**/**	An IPP producing energy from renewable energy sources may acquire the status of preferential IPP and obtain the right to use premium or preferential tariff for the electricity it will generate. The law stipulates one procedure for IPPs who wish to use premium and other procedure for IPPs who wish to use preferential tariff. Preferential IPPs that use preferential tariff may only sell the generated electricity to the authorized energy market operator (MEMO).

3.2.2. Montenegro

Area	Topic	Sub-topic	Description
Legislation	**Applicable regulation**	**/**	The Law on Energy is the general legal framework regulating the operation of the IPPs and the C&I solar market. The law and the related bylaws regulate the licensing process for IPPs, the rules for supply of electricity, the rules for production of electricity from renewable energy sources, the operation of the energy market, the production, transmission, distribution, trade and supply of electricity etc.
Competent Authorities	**REAGEN**	**/**	REGAGEN is energy agency that was established in 2004 by the Parliament of Montenegro. Today, it is independent body and the main regulator of the Montenegrin energy sector. Its competences include, among many others: (i) adoption of the required rulebooks, tariffs and other bylaws related to the energy sector; (ii) approval of network rules of the licensed transmission and distribution companies, balancing rules, rules for export of energy etc.; (iii) issues the energy licenses; (iv) maintains registries; (v) monitors the Montenegrin energy market, etc.
Overview of the Energy Market	**General Overview**	**/**	The wholesale electricity market is open with no restrictions. All IPPs may participate on the electricity market, provided that the same are duly registered in the registry of market participants maintained by the licensed electricity market operator. Wholesale trading of electricity is allowed and regulated by the Energy Act and other accompanying market rules. Electricity trading is possible through: (i) electricity stock exchange (MEPX); and (ii) bilateral agreements. Electricity trading is carried out both locally and cross-border.

	Market Participants	**IPPs**	IPPs perform activities related to production and sale of electricity to all other market participants on the Montenegrin market and abroad.
		Transmission System Operator (CGES or TSO)	The majority state - owned joint stock company CGES is the transmission system operator for electricity, work of which is regulated by the Energy Law and rules adopted by REGAGEN. CGES operates based on the certificate issued by the REGAGEN. CGES is the owner of the electricity transmission infrastructure in the country and performs the activities related to the transmission of electricity and maintenance of infrastructure. The State of Montenegro entered strategic partnership regarding ownership over CGES with second largest shareholder of CGES which is an Italian company Terna s.p.a. CGES is also authorized to, among others, enter into contracts on participation at the electricity trade market with market operator (COTEE).
		Distribution System Operators (CEDIS)	In Montenegro, there is one electricity distribution system, a limited liability company CEDIS, solely owned by the national electricity production and supply company EPCG. Its basic activity (distribution of electricity) is regulated by the Energy Law. In addition, CEDIS may carry out engineering and supervisory activities.
		National Electricity Supply Company (EPCG)	EPCG is the Montenegrin electricity supply and production company which established its subsidiary CEDIS.
		Electricity Market Operator ("COTEE")	COTEE performs the activities related to the organization, functioning, and development of markets with bilateral agreements, the spot market, and the day-ahead market (the latter two are in the process of establishment). The National Electricity Market Operator of Montenegro (COTEE) was established by the Montenegrin Government and was duly licensed by the REGAGEN. COTEE should provide a secure and transparent trading environment, providing each market participant with fair and equal access to the market. COTEE also maintains registry of all market participants (including IPPs). COTEE is also body authorized for issuance, transfer and cancellation of guarantees of origin.
		Electricity suppliers	Electricity suppliers are licensed to procure electricity from Montenegro and abroad for sale to their consumers, other suppliers, traders, the TSO, the distribution system operators and other market participants. In addition to regular suppliers, the law recognizes (i) a universal supplier who supplies households and small consumers with electricity; and (ii) last resort supplier who supplies with electricity consumers who, due to any reason, has remained without a regular supplier.

		Electricity traders	Electricity traders are licensed to procure electricity from Montenegro and abroad for sale to other traders, suppliers, the TSO, the distribution system operators and consumers who are authorized to individually participate on the energy market, as well as for sale of the electricity abroad.
	Virtual PPA	**/**	Virtual PPA represents a financial contract at defined price for a certain period to protect (hedge) against spot price volatility on market, and requires a settlement against a certain power exchange ("PX") index between parties. Virtual PPA is a type of financial instrument subject to financial regulation and monitoring by financials services supervisory agency. Virtual PPAs are treated as financial swaps but need to work in parallel with physical electricity delivery as RE developer needs to use access-to-market service provided by utility companies / traders and corporate off-taker needs to receive electricity priced on spot from its supplier for the PPA volume. In case of virtual IPP implementation, additional legal analysis needs to be conducted for financial regulation compliance.
	Electricity trading	**/**	The wholesale trading on the Montenegrin market is based on bilateral contracting upon a free-market negotiation of prices based on PPAs. Trading takes place outside the power exchange and prices are not made public. The electricity day-ahead market (spot market) and the intraday market are still not operational.
	Balancing	**/**	IPPs have balance responsibility in relation to the energy they produce. For the purposes of fulfilling its balance responsibility an IPP may: (i) register itself as balance responsible party and form a balance responsible group consisting of one or more electricity market participants, where it will take over the full balance responsibility of the group and submit daily physical schedules (nominations) for the group and be responsible towards the TSO; or (ii) become member of already existing balance responsible group where another person is the balance responsible party. The relations related to balance responsibility are regulated by way of agreement entered between the members of the balance responsible group.
Establishment and operation of IPPs	**Who can establish and IPP?**	**/**	Power production activities may be performed by domestic and foreign entities that have acquired a power production license from the REGAGEN.

	Licensing of IPPs	/	IPPs may perform their power generating activities upon obtaining of electricity generating license. The REGAGEN issue a license for a period up to 10 years whereby at the request of the holder of the license, validity period may be extended. Fee for issuance of license is payable as well as annual fee for use of license to the REGAGEN.
Renewable energy	**RES IPPs registry**	/	IPPs producing energy from renewable energy sources should also be registered in a separate registry maintained by REGAGEN.
	Market participation	/	IPPs producing energy from renewable energy sources are eligible to participate on the Montenegrin energy market as any other IPP.
	Guarantee of origin	/	An IPP producing energy from renewable energy sources could obtain a guarantee of origin for the generated electricity. A guarantee of origin labels the origin of the electricity and prove to the final customer that a given quantity of energy was produced from renewable energy sources.
	Incentives and Feed-in Tariffs	/	Energy Act sets out incentive measure for RES producers such as: mandatory buyout of electricity, incentive prices, validity period of mandatory buyout, release from payment for balancing services, priority in taking over of the produced electricity, etc. According to Decree on incentives for production of electricity from renewable energy sources (Incentive Decree), RES producers are entitled to a certain amount added to the total purchase price (RES Incentive Fee) charged to all end customers by power suppliers based on the electricity purchase contracts. The distribution of the funds made of the total RES Incentive Fees is distributed back to RES producers by the market operator in accordance with the methodology and formulae set out in the law and relevant by-laws
	Preferential IPPs	/	An IPP producing energy from renewable energy sources may acquire the status of preferential IPP and obtain the right to use premium or preferential tariff for the electricity it will generate. Please note that the Incentive Decree sets out also the incentives for the preferential RES producers. However, in Montenegro, at this moment, no preferential producer license could be obtained due to the fact that the relevant authority does not issue any new preferential producer licenses.

3.2.3. *Albania*

Area	Topic	Sub-topic	Description
Legislation	**Applicable regulation**	**/**	The Law No. 43/2015 on Electricity Sector is the general legal framework regulating the operation of the IPPs and the C&I solar market. The law and the related bylaws regulate the licensing process for IPPs, the rules for supply of electricity, the rules for production of electricity from renewable energy sources, the operation of the energy market, the production, transmission, distribution, trade and supply of electricity etc.
Competent Authorities	**Energy Regulatory Authority (ERE)**	**/**	ERE is a public legal entity, independent from the energy industry interest and from government institutions. The Board of Commissioners of ERE is composed of five members, the Chairman and four Board Members, appointed in this position from the Albanian Parliament, with a mandate of five years. ERE's mission is (i) to ensure a sustainable and secure electricity supply of the customers by establishing an operational and competitive electricity market, taking into account the customers interest, electricity of supply quality and the requests to protect the environment, (ii) to regulate the generation, transmission, distribution, and electricity supply activities.
Overview of the energy market	**General overview**	**/**	In April 2021, the Electricity Balancing Market was created, which operates based on the Rules of the Albanian electricity balancing market. From April 1, 2021, with the functionalization of the balancing market, balancing services are provided in the market, in a transparent, competitive and non-discriminatory manner. All IPPs may participate on the electricity market, provided that the same are duly registered in the license's registry, maintained by ERE.
	Market participants	**IPPs**	IPPs perform activities related to production and sale of electricity to all other market participants on the Albanian market and abroad under the terms of the electricity production license issued by ERE.
		Transmission System Operator (TSO)	The electricity transmission system in Albania is managed by the Transmission System Operator (OST sh.a.), a public company with 100% state shares. OST sh.a is responsible for the operation, maintenance and development of the transmission system, including interconnections with other cross-border systems, to ensure the long-term ability of the system to meet reasonable electricity transmission requirements. OST guarantees the necessary transmission capacities for: (i) uninterrupted supply of electricity to substations of the distribution system and electricity consumers connected directly to the transmission network, (ii)

			transmission of electricity produced from the country's sources, (iii) as well as for the necessary transits and exchanges with the countries of the region.
		Distribution System Operators	The Electricity Distribution Operator company (OSHEE) is a public company with 100% state shares. It is responsible for the safe, reliable and efficient operation of the distribution network, ensuring the maintenance and development of the distribution system over a certain area and, when applicable, its connections with other systems to ensure long-term ability of the system to meet reasonable requirements for energy distribution, in harmony with the environment and energy efficiency.
		Electricity Market Operator (EMO)	This is the responsible licensed structure by ERE for the operation, organization and management of the electricity market, as well as for the organization and operation of the day-ahead and intraday electricity market. In Albania, OST sh.a is in the function of the Electricity Market Operator who administers and supervises the Albanian Electricity Market
		Electricity suppliers	Electricity suppliers are licensed to procure electricity from Albania and abroad for sale to their consumers, other suppliers, traders, the TSO, the distribution system operators and other market participants. Electricity supply to end customers can be done by any licensee who is equipped with an electricity supply license issued by ERE. Suppliers buy electricity to supply end customers in the domestic market and/or via import. In addition to regular suppliers, the Law on Electricity Sector recognizes a universal supplier to serve as a supplier only to end customers, within the territory of the Republic of Albania, with regulated prices, easily and clearly comparable, transparent and non-discriminatory, according to the conditions determined by ERE. The licensed universal supplier in Albania is Universal Service Provider (FSHU sh.a), part of the OSHEE group. Another supplier is the Supplier of Last Resort which is obliged to supply customers, who are left without a supplier, when (i) the previous supplier is insolvent or is in the process of bankruptcy, (ii) the previous supplier's license has been revoked or temporarily suspended, (iii) the customer has not managed to find a supplier in the market.

		Electricity traders	Electricity trader is any legal entity, which carries out the activity of electricity trading. These entities are licensed to procure electricity from Albania and abroad for sale to other traders, suppliers, the TSO, the distribution system operators and consumers who are authorized to individually participate on the energy market, as well as for sale of the electricity abroad.
	Electricity trading	**/**	The wholesale trading is the process carried out by a legal entity that buys electricity, with the aim of reselling it inside or outside the system of the country where it operates.
	Balancing	**/**	IPPs are obligated to balance the production, consumption, sales and purchase processes of electricity, in accordance with the accepted program, being financially responsible towards the Transmission System Operator for the systemization of the created imbalances. Electricity market participants can regulate the responsibility for balancing, through a contract with the Transmission System Operator taking the status of the party responsible for balancing or by signing a contract for the transfer of responsibility for balancing to another party responsible for balancing, by becoming a member of a balancing group, in accordance with market rules.
Establishment and operation of IPPs	**Who can establish and IPP?**	**/**	Power production activities may be performed by domestic and foreign entities that have acquired a power production license from ERE.
	Licensing of IPPs	**/**	For the performance of each activity, separate licenses are issued by ERE even when they are given to the same company. In establishing license conditions, ERE avoids possible inconsistencies between license conditions, issued for different activities, carried out by the same company. ERE determines the conditions that must be met for obtaining each license, taking into consideration the validity period of the license, which for production, transmission and distribution activities cannot be more than 30 years.
Renewable energy	**RES IPPs registry**	**/**	IPPs producing energy from renewable energy sources should also be registered in a separate registry maintained by the relevant Agency for Renewable Energy Sources.
	Market participation	**/**	IPPs producing energy from renewable energy sources are eligible to participate on the Albanian energy market as any other IPP.

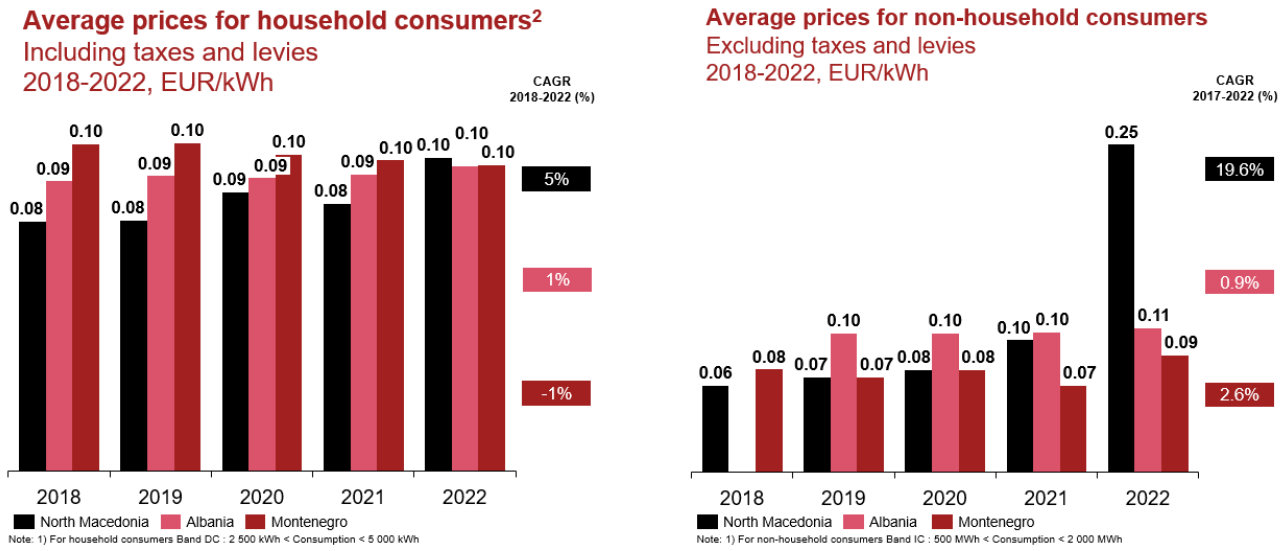
	Guarantee of origin	**/**	At the request of the IPPs producing energy from renewable energy sources, ERE must issue the guarantee of origin for each unit of energy generated by the plant, after obtaining the right to build the renewable energy plant. The guarantee of origin is issued in the standard format and for a 1 MWh unit of electricity, it must specify: (i) the source of energy, from which the energy is produced; (ii) date of start and end of production; (iii) the name, place, type and capacity of the plant where the energy was produced; (iv) if the producer has benefited from investment support or from other support schemes at the national level and the amount of this benefit; (v) the date of authorization of the plant and the time when it was put into operation; (vi) date, place of issue of the guarantee and a unique identification number.
	Preferential IPPs	**/**	IPPs who produce energy from renewable sources have priority in accessing electricity networks. An Preferential IPP is any producer that produces electricity from renewable energy sources and in the case of hydropower, with an installed capacity of up to 15 MW per generating unit that benefit from support schemes, in accordance with the provisions of the Law "On Promoting the use of energy from renewable sources".

3.3. Power prices for C&I consumers vs. what they can obtain from the grid, and general trends for the future.

The gap between household prices in the Wester Balkan region (WB6-Albania, Bosnia and Herzegovina, Croatia, Kosovo, Montenegro, North Macedonia, and Serbia) and the EU-27remains significant. According to Eurostat, for household consumers in the EU (with an annual consumption between 2 500 KWh and 5 000 KWh), electricity prices in the second half of 2022 were highest in Denmark (0.5871 EUR/KWh), Belgium (0.4489 EUR/KWh), Ireland (€0.4199 EUR/KWh) and Czechia (€0.3844 EUR/KWh). On the hand, North Macedonia has the highest household electricity prices in the region 0.103 EUR/kwH, followed by Albania 0.0976 EUR/KWh and Montenegro 0.096 EUR/KWh. Nevertheless, household prices did not reach even half of the average price charged in the EU-27, due to the fact that electricity prices, especially for households, are regulated at a low level.

For the prices charged to industry and commercial customers, the situation is different. As regulated prices are mainly available only to small customers, the prices better reflect the wholesale market price, and the electricity price without taxes and charges in WB6 is close to EU-27. Non-household consumers are defined for the purpose of this research are defined as medium-sized consumers with an annual consumption between 500 MWh and 2 000 MWh. In the second half of 2022, the average price for the EU was 0.2037 EUR/KWh, with the aggregates being weighted based on the average consumption within each category. North Macedonia has one of the highest non-household electricity prices 0.3215 EUR/KWh for the second half of 2022 (marking a sharp increase from 0.1685 in the first half of 2022), followed by Albania 0.1097 EUR/KWh and Montenegro 0.0762 EUR/kwH for the first half of 2022.

Figure 26 Average prices for household and non-household consumers 2018-2022



Source: Eurostat, PwC Analysis

3.3.1. North Macedonia

In 2022, North Macedonia's energy regulator decided to introduce a new model for charging electricity consumption of households that pegs the price per kilowatt hour (kWh) to the monthly level of consumption and will increase prices by 7.4% on average for 98.8% of consumers. In December 2022, North Macedonia started subsidizing electricity bills of staple food producers and bakeries, bringing the price they paid down to EUR 80 per MWh. The measure, aimed at protecting the living standards of the population, applied to about 200 companies in the food industry and 600 bakeries.

According to the data of the State Statistical Office, in the second semester of 2022, the average electricity price for households in the Republic of North Macedonia was 105.5 EUR/MWh, which represents an increase of 12.6%

compared to the first semester of 2022. The average electricity price without value added tax for non-household consumers is between 145.1 and 321.9 EUR/MWh by consumer bands.

Figure 27 Average electricity prices for households for the first half of 2022

End-user consumer bands	**Annual electricity consumption in KWh**		**Prices in denars/MWh**					
			VAT included	energy and supply	network costs		VAT excluded	VAT included
					transmission	distribution		
	a lowest	highest	(I-VI) 2022	(VII-XII) 2022				
D1	< 1000		95.3	44.0	5.5	49.3	98.9	103.9
D2	1000	< 2500	94.9	43.6	5.5	49.3	98.5	103.4
D3	2500	< 5000	94.2	43.4	5.5	49.3	98.2	103.1
D4	5 000	< 15 000	93.2	44.4	5.5	49.3	99.2	104.2
D5	>= 15 000		94.2	60.4	5.5	49.3	115.3	121.0
average			93.7	45.6	5.5	49.3	100.4	105.5

Source: Energy and Water Services Regulatory Commission of the Republic of North Macedonia, SSO

Figure 28 Average electricity prices for non-household consumers

End-user consumer bands	Annual electricity consumption in KWh		Prices in Euro/MWh					
			VAT included	energy and supply	network costs		VAT excluded	VAT included
					transmission	distribution		
	a lowest	highest	(I-VI) 2022	(VII-XII) 2022				
I1	< 20		196.4	216.8	5.5	49.3	271.6	320.5
I2	20	< 500	202.5	251.9	5.6	49.7	307.2	362.5
I3	500	< 2000	169.0	275.9	5.5	40.4	321.8	379.8
I4	2 000	< 20 000	167.7	262.1	5.7	21.8	289.5	341.6
I5	20 000	< 70 000	191.4	303.8	5.5	12.6	322.0	379.9
I6	70 000	< 150 000	240.4	304.9	6.5	2.2	313.6	370.1
I7	>= 150 000		168.5	139.5	5.5	0.0	145.0	171.2

Source: Energy and Water Services Regulatory Commission of the Republic of North Macedonia, SSO

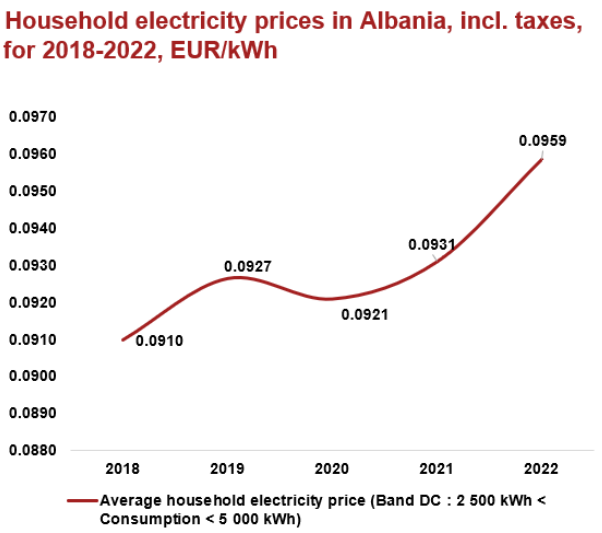
The electricity prices in North Macedonia in the last three years marked a sharp increase. Households, even though supplied by the Universal supplier, which mostly or completely is supplied by electricity from AD ESM, did not remain immune and faced increasing prices by about 12% in the second half of 2021, compared to the first half of 2021. The VAT for electricity for households was reduced from 18% to 5%.

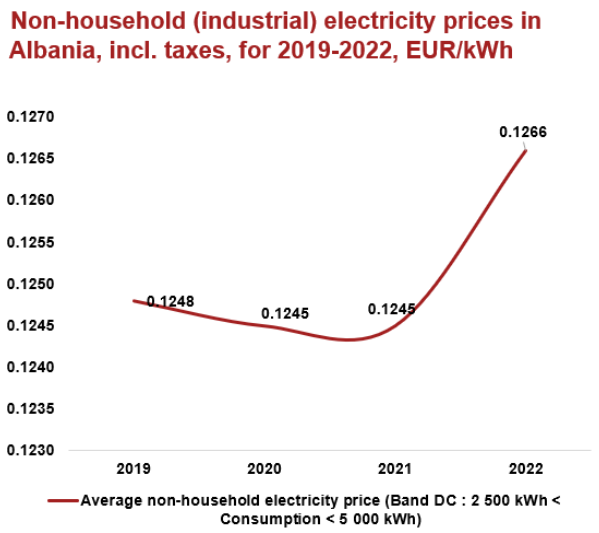
3.3.2. Albania

Albania has a relatively low per capita consumption of electricity. Therefore, the demand for electricity is low, and the supply from domestically produced sources is sufficient to meet the demand. During the second half of 2021, as well as in 2022, Albania faced a severe energy crisis as its reliance on hydroelectric power plants for domestic power production was hampered due to water shortage. A spike in market-based electricity prices combined with droughts resulted in record imports. In order to keep prices from rising the government continued to subsidize electricity for families and small businesses.

Due to the energy crisis in October 2022, the Albanian government introduced its energy savings measures, which include an 800 Kilowatt-hour (Kwh) limit per month for families who want to avoid paying a higher rate for electricity. Those who use 800Kwh per month or below will see their bills remain the same with a low, subsidised rate, but the price will quadruple for every watt over the limit. Once that limit is reached, the cost of €0.097 per KwH quadruples to €0.30 plus a transmission and distribution fee.

Figure 29 Household and non-household electricity prices in Albania





Source: Eurostat, PwC Analysis

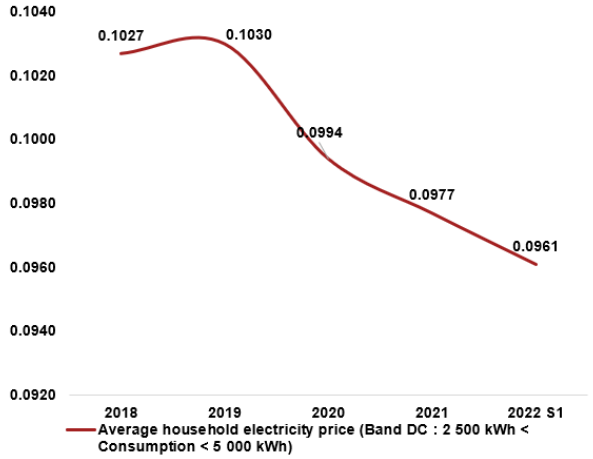
3.3.3. Montenegro

Montenegro has not been immune to the effects of the global energy crisis; however, the impact of this crisis is relatively less severe compared to some other countries. This is due to the fact that Montenegro did not experience a significant rise in electricity prices during the recent period, nor were there any notable restrictions, despite the unfavourable energy situation prevailing globally. The government-owned Electric Company (EPCG) did not rise the electricity prices in the country. Due to the fact that the company's economic operations were not further jeopardised and the social peace and people' standard of living were partially preserved, this helped to lessen the negative effects of the energy crisis. Montenegro was spared the terrible effects of the energy crisis and the record-breaking increase in electricity prices on European stock exchanges. However, it is believed the effect effects of the energy crisis will be felt in the form of significantly higher electricity prices in the upcoming period.

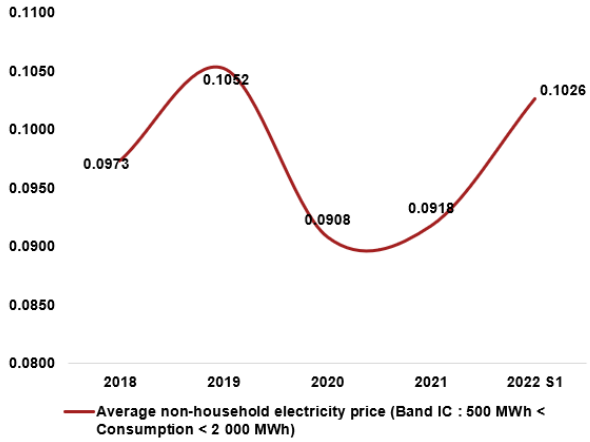
The latest available data for Montenegro is for the first half of 2022. Average household electricity prices (band DC 2500kWh<5000kWh and Band DC 5000kWh<15000kWh) were 0.09 EUR/kWh including all taxes and levies and for the non-household or industrial consumers it was 0.1026 EUR/KWh.

Figure 30 Household and non-household electricity prices in Montenegro

Average household electricity prices in Montenegro, incl. taxes, for 2018-2022, EUR/kWh



Average non-household (industrial) electricity prices in Montenegro, incl. taxes, for 2018-2022, EUR/kWh



Source: Eurostat, PwC Analysis

3.3.4. General trends for the future

All three countries, North Macedonia, Albania and Montenegro, have begun to experience a shift regarding the future of the energy sector. Although the focus started to move from coal to energy transition and the promotion of renewables, the conviction that domestic lignite is vital for security of supply has resurged given higher commodity prices and inflation. Due to recent energy crisis and turmoil on power market, wholesale electricity prices are expected to stay volatile and high in 2023, however prices are expected to gradually drop in following years.

To mitigate the impact of global markets, it is imperative to reduce import dependency through the investment in renewable energy sources, which will, in turn, decrease the importation of electricity and preserve domestic coal as an alternative. The following trends are anticipated in the region in general:

- **Expansion of renewable energy:** There is a growing trend towards increasing the use of renewable energy sources in the regio, such as hydropower, wind, and solar power. This trend is expected to continue in the future, driven by factors such as increasing energy demand, rising energy prices, and climate change concerns.
- **Energy Infrastructure Development:** The region is investing in the development of new energy infrastructure, including interconnectors, transmission lines, and power plants. This will enable greater regional cooperation and integration with the wider European energy market.
- **Encouraging investments in innovative solutions** through grant schemes, and potential options include grants for renewable energy projects that utilize geothermal heat and solar parks, grants for smart technologies that combine production and storage or contribute to smart grids, and grants for sustainable energy investments in heat pumps, solar water heating systems, biomass boilers, and pellet stoves.
- **Increase in green financing options**- As the region places greater emphasis on renewable energy and energy efficiency, there will be a growing need for financing to support these initiatives. Additionally, as the region seeks to integrate with the wider European energy market and meet EU climate goals, there will be increasing pressure to adopt sustainable finance practices. As a result, it is likely that green financing options, such as green bonds and loans, will become more prevalent in the Western Balkans in the coming years.
- **Commercial Power Purchase Agreements (PPAs) are increasing in popularity.** These are contracts where renewable energy producer sells electricity to a buyer via two main business models: virtual and physical PPA. A means of financing which is referred to as a power purchase agreement (PPA) involves

a long-term contract between a seller of sustainable energy (usually solar energy) and a power purchaser (user). This contract enables the seller to set up power-producing facilities, such as solar cells, on the purchaser's land, and supply them with electricity at a more reasonable rate than what's available through the national grid at its fixed prices. Moreover, the seller does not charge for installation and is also responsible for maintenance during the duration of the contract, which makes this arrangement financially viable. This process allows buyers to enjoy a twofold benefit. First, they can source cheaper and environmentally friendly power, and second, they don't have to spend heavily on equipment or maintenance. To surmount current obstacles to the expansion of renewable energy, most C&I (commercial and industrial) stakeholders utilize PV (photovoltaic) solutions through PPA agreements.

About the Subnational Climate Fund:

The Subnational Climate Fund (SCF) is a global blended finance initiative that aims to invest in and scale mid-sized (5 – 75 M $USD) subnational infrastructure projects in the fields of sustainable energy, waste and sanitation, regenerative agriculture and nature-based solutions in developing countries.

The SCF finances projects with a blend of concessional and conventional capital, along with Technical Assistance grants that help mitigate risk and ensure financial and environmental goals are achieved.

For further information about the SCF, visit: www.subnational.finance