



**Guidelines and Best Practices for
Micro-, Small and Medium Enterprises in Albania in
Delivering Energy-Efficient Products and Providing
Renewable Energy Equipment**

August 2021

Acknowledgments

Besim Islami is the main author of this report. Oleg Dzioubinski of the UNECE Sustainable Energy Division contributed to the report through review and comments. Valuable contributions to the report were provided by respondents to project surveys and interview participants, in particular Artan Leskoviku, Director of the National Agency of Natural Resources of Albania (AKBN), and staff of the following Albanian companies dealing with production of energy efficiency and renewable energy materials/equipment/services: PESPA GROUP ALUMIN sh.p.k., SED 21 sh.p.k., ALBA PEN sh.p.k., LESNA sh.p.k., IZOTERM ALBANIA sh.p.k., Austrotherm sh.p.k., BAD sh.p.k., EUROPA A.P. sh.p.k., KMPK sh.p.k., Albania Steel Construction sh.p.k., Building & Construction sh.p.k., and EUROPA Constructions sh.p.k.

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Table of Contents

Acknowledgments	2
Disclaimer.....	2
List of Figures and Tables.....	4
List of Acronyms	7
Executive Summary.....	8
Introduction.....	9
1. Analysis of the environment that MSMEs working in the area of energy efficient products and services and renewable energy equipment in Albania face as a result of the Covid-19 crisis	12
1.1. Methodology.....	12
1.1.1 Collection of primary data through an “MSME COVID-19 effects” survey	12
1.1.2 Collection of primary data through interviews with selected MSMEs	12
1.1.3 Collection of secondary survey data	13
1.1.4 Desk analysis	15
1.2. General impact of COVID-19 crisis on MSMEs	15
2. Impact of working environment on MSMEs in Albania as a result of the Covid-19 crisis.....	18
3. Overview of specific conditions MSMEs in Albania face in the new working environment.....	20
3.1 Governmental measures	20
3.2 Fiscal policy to support population and business companies	21
3.3 Sovereign Guarantee Instrument	22
4. Best practices in the area of energy efficiency relevant to MSMEs response to the Covid-19 crisis and post-crisis recovery in Albania.....	24
4.1 Energy efficiency thermal insulation in the Hotel Sector.....	24
4.2 Energy Efficient Windows in the Hotel Sector	25
4.3 Energy Efficiency Investment in Greenhouse Sector.....	26
4.4 Energy Efficiency investment in milk processing Anita company.....	27
4.5 Energy Efficiency Investment in Milk Processing Erzeni Enterprise	28
4.6 PV Autoproducer Investment in Kamela Enterprises.....	29
4.7 PV Autoproducer Investment in AJKA Enterprises	32
4.8 Installing EE Olive Boiler using olive pomace biomass on Subashi SH sh.p.k. Olive Oil Factory .	32
4.9 Rehabilitating Gavrani 1 and Gavrani 2 SHPPs	33
5. Potential market for EE/RE for MSMEs delivering energy-efficient products and providing renewable energy equipment in Albania.....	34
5.1 Energy efficiency targets for Albania.....	34
5.2 Renewable energy targets for Albania.....	35
5.3 Main steps of calculating a potential market for EE/RE for MSMEs delivering EE/RE products	36
5.4 Technologies for the EE market	36
5.5 Technologies for the RE market	37
5.6 Albania’s manufacturing enterprises market and capacities to produce EE/RE technologies.....	38

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

5.6.1	Small hydropower plants	39
5.6.2	Biogas thermal/power plants.....	40
5.6.3	Solar hot water systems (SHWS).....	40
5.6.4	Solar photovoltaic systems	41
5.6.5	Wind power plants.....	41
5.6.6	Biomass boilers.....	41
5.6.7	All energy efficiency technologies	42
5.6.8	All renewable energy technologies	43
5.6.9	All energy efficiency and renewable energy technologies.....	43
6.	Practical measures, opportunities, and guidelines for MSMEs delivering energy-efficient products and providing renewable energy equipment on access to financing, markets, and advanced technologies in Albania.....	45
6.1	Practical measures for MSMEs delivering energy efficient products and services in getting access to markets, financing, and advanced technologies	45
6.1.1	Upcoming Revolving EE/RE Mechanism for retrofitting Municipal Public Buildings	45
6.1.2	Financing Sustainable Energy Sources Projects credit line supported by EBRD and GGF together with commercial banks of Albania	47
6.2	Practical measures for MSMEs providing renewable energy equipment in getting access to markets, financing, and advanced technologies	47
6.2.1	Introduction of a digital platform for issuing permits of PV Autoproducers.....	47
6.2.2	Continuation of Investment Activities in EE and RE during the Covid-19 crisis.....	49
6.3	Opportunities for repurposing of MSMEs in the aftermath of the Covid-19 crisis	50
6.3.1	Public-Private Partnership (PPP) and Energy Service Company (ESCO) for introducing EE LED public street lightning	50
6.3.2	Repurposing towards R&D.....	50
6.4	Guidelines to MSMEs delivering energy-efficient products and providing renewable energy equipment on access to financing, markets, and advanced technologies in Albania	50
7.	Conclusions and Recommendations.....	51
7.1	Recommendations to the Government of Albania in creating an enabling environment through appropriate policies and legislation for MSMEs to encourage delivery of energy efficient products and services and provision of renewable energy equipment	53
7.2	Recommendations to the Government for developing policy guidelines and establishing financial incentives schemes.....	53
	References.....	55
	Annex I. Questionnaire for the impact of COVID-19 on the micro-, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment	57
	Annex II. Pyetesor per ndikimin e COVID-19 ne Ndermarrjet Mikro, te Vogla dhe te Mesme (NMVM) qe prodhojne produkte me Eficence Energjije (EE) dhe pajisje me Energji te Rinovueshme (RE) (ne Shqiperi).....	59
	Annex III. Opportunities for MSMEs related to Energy Performance Certificate of Buildings.....	61

List of Figures and Tables

Title	Page
Figure 1: Number of active business entities by sector and by size (2019)	12

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

Figure 1-1: Categorization of interviewed enterprises (Source: MSMEs COVID-19 effects survey)	17
Figure 1-2: Impact of COVID-19 on enterprise revenues (Source: MSMEs COVID-19 effects survey)	17
Figure 1-3: Types of products produced by the enterprises (Source: MSMEs COVID-19 effects survey)	18
Figure 1-4: Regions where enterprise operated and were interested in exploring (Source: MSMEs COVID-19 effects survey)	18
Figure 1-5: Kinds of EE products or RE equipment produced by Albanian MSMEs	19
Figure 3-1: Financial Assistance Instalments	23
Figure 4-1: Solar Radiation (kWh/m ² year) and Sunshine Hours (hours/year) in Albania	31
Figure 4-2: General layout of the panels on the roof surfaces	32
Figure 4-3: Monthly demand and supply (from the PV) in the fruit processing factory (kWh/month)	33
Figure 4-4: Coverage of demand and supply (from the PV) in the fruit processing factory (%/month)	33
Figure 4-5: Demand and supply (from the PV) in the fruit processing factory (kWh/year)	33
Figure 4-6: Demand and supply (from the PV) in the fruit processing factory (%/year)	33
Figure 4-7: Cycle inside a complex Olive Oil Extraction Mill	35
Figure 5-1: Energy consumption by sector (KTOE)	37
Figure 5-2: Share of each sector in energy consumption (%)	37
Figure 5-3: Biomass pellet boiler	39
Figure 5-4: Energy consumption by micro, small and medium enterprises (MSMEs) and corporate businesses (energy commodities for process heating)	41
Figure 5-5: Energy consumption by MSMEs and corporate businesses (energy commodities for electricity/motive power processes)	41
Figure 5-6: SHPPs elements currently and will be produced by EE/RES MSMEs	42
Figure 5-7: SHPPs elements that EE/RES MSMEs are and will be produced in the future	42
Figure 5-8: Biogas-plant elements currently and will be produced by RE MSMEs	44
Figure 5-9: Biogas-plant elements that RE MSMEs are and will be produced in the future	44
Figure 5-10: SHWS elements currently and will be produced by EE/RES MSMEs	44
Figure 5-11: SHWS elements that EE/RES MSMEs are and will be produced in the future	44
Figure 5-12: SPVS elements currently and will be produced by EE/RES MSMEs	45
Figure 5-13: SPVS elements that EE/RES MSMEs are and will be produced in the future	45
Figure 5-14: WPP elements currently and will be produced by EE/RES MSMEs	45
Figure 5-15: WPP elements that EE/RES MSMEs are and will be produced in the future	45
Figure 5-16: Elements currently and will be produced by EE/RES MSMEs for biomass boilers	46
Figure 5-17: Elements for biomass boilers that EE/RES MSMEs are and will be produced in the future	46
Figure 5-18: The actual and projected annual EE MSMEs production of each EE technology (EUR)	47
Figure 5-19: Actual and projected annual EE MSMEs production of all EE technologies (EUR)	47
Figure 5-20: The actual and projected annual RE MSMEs production of each RE technology (EUR)	47
Figure 5-21: Actual and projected annual RE MSMEs production of all RE technologies combined (EUR)	47
Figure 5-22: The actual and projected annual RE MSMEs production of each EE/RES technology (EUR)	48
Figure 5-23: Actual and projected annual RE MSMEs production of all EE/RES technologies combined (EUR)	48
Figure 6-1: Operation budget flow for all Municipality education buildings	49
Figure 6-2: Capital budget flow for Tirana Municipality education buildings	49
Figure 6-3: Description of current grid connection procedures	51
Figure 6-4: RE IPP proposed grid connection procedure with OSHEE	51
Title	Page
Table 1: Definition of MSME in Republic Albania	11
Table 2: Active entities by size and net sales	11

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

Table 1-1: Albanian Industrial Sectors	15
Table 1-2: Ease of Doing Business Rankings for Albania	16
Table 3-1: Progressive update on MFE Package Performance	23
Table 3-2: Mapped list of measures and the assessed impact	25
Table 4-1: Main parameters of the technical and financial analysis	26
Table 4-2: Main parameters of the technical and financial analysis	28
Table 4.3: Breakdown cost for all installing items of SWH system as turn-key contract	30
Table 4.4: Parameters of Gavrani 1 and Gavrani SHPPs	36
Table 5-1: Energy savings targets by sector	37
Table 5-2: Total budget of a 4.2 MW SHPP	40
Table 5-3: Unit cost for each RE technology for Albania's conditions	42
Table 5-4: Elements produced and to be produced by EE/RES MSMEs for biomass boilers	45
Table 5-5: SWOT analysis for the Albanian MSMEs EE/RE manufacturing	47
Table 6-1: Potential number of Solar PV Autoproducers and their potential installed capacity	51

List of Acronyms

ALL	Albanian Leke
AIDA	Albanian Investment Development Agency
ADF	Albanian Development Fund
AKBN	Agjencia Kombetare e Burimeve Natyrore (National Agency of the Natural Resources)
BioPP	Biomass Power Plant
BoA	Bank of Albania
BKT	Banka Tregtare Kombetare
CESEC	Central and South-Eastern European Gas Connectivity
COP	Coefficient of Performance
DCM	Decision of the Council of Ministers
EE	Energy Efficiency
EBRD	European Bank for Reconstruction and Development
E&M	Equipment & Machinery for different renewable energy source power plants
EU	European Union
EUR	EUR
E&M	Equipment and Machinery
EPS	Expanded Poly Styrene
GGF	Green for Growth Fund
GHG	Greenhouse gases
GoA	Government of Albania
IRR	Internal Rate of Return
IEE	Industrial Energy Efficiency
ILO	International Labor Organization
IPP	Independent Power Producer
EU IPA	EU Instrument for Pre-Accession Assistance
ktoe	Kilotons of oil equivalent
MSMEs	Micro-, Small, and Medium Enterprises
MEUR	Million EUR
MFE	Ministry of Finance and Economy
MIE	Ministry of Infrastructure and Energy
MoESY	Ministry of Education, Sport and Youth
NPER	National Programmes for Economic Reforms
NREAP	National Renewable Energy Action Plan
NEEAP	National Energy Efficiency Action Plan
NDC	Nationally Determined Contribution
NPL	Non-performing Loan
PE	Public Enterprise
PPP	Public Private Partnership
PV	Photovoltaic
PVPP	Photovoltaic Power Plant
RE	Renewable Energy
REEP	Regional Energy Efficiency Programme
R&D	Research and development
REC	Regional Environmental Center
SCADA	Supervisory Control and Data Acquisition
SHPP	Small Hydropower Plant
UN	United Nations
UNIDO	United Nations Industrial Development Organization
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
USAID	United States Agency for International Development
VSD	Variable Speed Drive
WPP	Wind Power Plant
WHO	World Health Organization

Executive Summary

This Report contains information about available funding for energy efficiency (EE) and renewable energy (RE) in Albania based on various reports as well as conducting own research. Based on gained information and better understanding of the current situation of development and implementation of the Strategy of Economic Development and EU Integration, Strategy of Energy, National Energy Efficiency Action Plans (NEEAPs), National Renewable Energy Action Plans (NREAPs) in Albania and approaching directly many Albanian enterprises dealing with production of EE/RE materials/equipment/systems/parts the findings presented in this report were collected.

Implementing EE/RE measures in order to meet the respective targets will require MSMEs in Albania to produce large part of materials and equipment domestically, which will bring many benefits for the country: i) increase productivity; ii) increase employment; iii) reduce trade deficit and improve overall country financial figures; iv) increase use of local sources; v) improve efficiency (and reduce costs) in all economic sectors thus leading to improved competitiveness; and vi) combating climate change effects. There are many domestic manufacturers of thermal insulation materials, EE windows, EE outside doors, and other equipment (e.g. boilers, solar hot water) and these companies are directly related to EE/RE market and policies in Albania. There is a large number of construction companies present in the market of energy efficiency. However, only a few companies have a well-educated workforce to install thermal insulation (such as rock wool) and EE windows. The most common insulation material is expanded polystyrene (EPS). However, MSMEs during Covid-19 period were challenged to find qualified labour for this type of work and there are no training programmes for construction companies.

MSMEs that perform works on heating and air conditioning systems are well-established and also they have challenges during Covid-19 period especially due to restriction of the being on the site to carry out the implementation of such works.

The role of micro-, small and medium Enterprises (MSMEs) in delivering energy efficient (EE) products and providing renewable energy (RE) equipment can become crucial in the post-Covid-19 recovery phase, if these companies are provided with the necessary incentives. As described in this report, this can be one of the ways to restart EE/RE MSMEs or even to create new ones when job opportunities are scarce. EE/RE MSMEs can benefit from clear guidelines on access to financing, access to markets, access to advanced technologies, and a favorable environment created by proper government policies and legislation. They will also benefit from concrete examples of successful implementation of measures by EE/RE MSMEs, including repurposing that led to significant economic gains.

In Phase 1 of the United Nations Development Account (UNDA) project “Global Initiative towards post-COVID-19 resurgence of the MSME sector”, United Nations Economic Commission for Europe (UNECE) has developed the Guidelines and Best Practices for Micro-, Small and Medium Enterprises in Delivering Energy-Efficient Products and in Providing Renewable Energy (RE) Materials/Systems/Equipment/Parts. Countries of the UNECE region can benefit from customization of the Guidelines and Best Practices to their national circumstances. Albania is one of the pilot countries for such customization that takes into consideration specific conditions of the country.

In Albania, the severe health crisis caused by COVID-19 has forced the Government to introduce drastic measures such as lockdowns, shutdowns, quarantine, and restrictions on mobility, which in turn affected the business environment. Most of the MSMEs had a significant impact from the pandemic and struggled to keep their operations. Immediate measures were necessary since the companies were not ready and were insecure about their response due to having no similar experience in the past and lack of certainty in projections for short- and medium-term future. MSMEs responded to the crisis with a partial operation (35%), work from home (20%), business as usual (35%), and stopping operation (15%). 19% of the MSMEs managed to diversify their production to respond to a service that is in higher demand due to the crisis. Due to the lack of means for the MSMEs to fight the pandemic, the government also introduced a set of measures that included no-interest credit lines and subsidies for employees' salaries.

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

The following are the main recommendations that result from the analysis in the report for the Government and MSMEs in delivering energy-efficient products and providing renewable energy equipment to increase their capabilities to overcome the crisis: increasing the use of innovation funds and programs; increasing the use of preferential loans for EE and RE; creating partnerships for easier access to supplies, resources, and markets; increasing online visibility (introducing digital stores, online technical support and social media presence); organizing trainings for the employees and/or for students and professionals; repurposing MSMEs towards highly demanded services in the new working environment because of the Covid-19 crisis.

Albanian EE/RE manufacturing enterprises supported by the Ministry of Infrastructure and Energy (MIE) and Ministry of Finance (MF) should take all steps to certify their products in order to compete for a higher share of the internal Albania markets and external markets of the other three neighboring countries (Kosovo, North Macedonia and Monte Negro). Certification of EE/RE materials/products/parts is very important and Albanian EE/RE manufacturing enterprises shall take measures for certifying their products in order to get part of the investments according to the respective markets. If this market is not be covered by Albanian EE/RE manufacturing enterprises, companies from other countries in the region will fill the gap and Albania will benefit very little from this opportunity.

The increasing utilization of the EE/RE technology is a vital step towards a more sustainable society in general and with strong benefits for the Albanian EE/RE manufacturing industry in particular. The argument of local added value is used in the permitting process of decision-making for new sites for EE/RE installations and can offer also valuable arguments for local manufacturing industries. It is also important to be mentioned that, public taxes generated from direct and indirect associated EE/RE activities should be considered as a positive contribution from the Albanian EE/RE producer manufacturing enterprises. Investments into machinery and buildings by the relevant Albanian EE/RE producer companies and institutions will bring a boost of investment (domestic and foreign ones) into the Albanian economy and they should be acknowledged as well.

The enormous EE/RE potential and its use demand a well-trained and professional staff from the very beginning. In this study of the new developing market, new careers that would arise with the expansion of EE/RES technologies are analyzed and presented. The clear legal and economic conditions as well as the geostrategic and central location in Albania, in a region with high demand and growth potential, offer various possibilities for different collaborations between foreign and Albanian EE/RE producer companies. Foreign and Albanian EE/RE producer companies could expand in the framework of different known models of cooperation, such as a joint venture, subsidiary (branch), direct business start-up, strategic alliance, etc. However, relying on experience, only two models of collaboration between foreign and domestic companies would be advised here, namely: cooperation as a joint venture and cooperation as a strategic alliance.

Albanian EE/RE producers shall take all measures to get as much a bigger part as possible of the total EE/RE investment required to reach the calculated energy savings potential for the residential sector, calculated as approximately 1.6 billion EUR composed by: 790 million EUR from EE materials/equipment/systems and 800 million EUR for RE technologies. This report provides more detail on the investments Albania needs to meet the respective targets: EE target for 2030 is approved at 15% and RE target for 2030 is approved at 42.5% according to the National Strategy of Energy approved by the Albanian Council of Ministers on 31 July 2018.

Introduction

United Nations Economic Commission for Europe (UNECE) is one of the partners implementing UNDA project “Global Initiative towards post-COVID-19 resurgence of the MSME sector”. The overall goal of the project is to strengthen the capacity and resilience of micro-, small and medium enterprises (MSMEs) in developing countries and economies in transition to mitigate the economic and social impact of the global COVID-19 crisis. More specifically, the UNECE part of the project will assist the MSMEs in member States to utilize effectively developed Guidelines and Best Practices for Micro, Small and Medium

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

Enterprises in Delivering Energy-Efficient Products and in Providing Renewable Energy Equipment.

The role of MSMEs in delivering energy efficient products and in providing renewable energy equipment can become crucial in the post-Covid-19 recovery phase if they are provided with the necessary incentives. This can be one of the ways to restart MSMEs or even to create new ones when job opportunities are scarce. MSMEs can benefit from clear guidelines on access to financing, access to markets, access to advanced technologies, and a favorable environment created by proper government policies and legislation. They will also benefit from concrete examples of successful implementation of measures by MSMEs, including repurposing that led to significant economic gains. In Phase 1 of the project, UNECE has developed the Guidelines and Best Practices for Micro-, Small and Medium Enterprises in Delivering Energy-Efficient Products and in Providing Renewable Energy Equipment¹. The report presents examples of best practices in the energy efficiency sector and in the area of renewable energy relevant for MSMEs' response to the Covid-19 crisis and post-crisis recovery, as well as case studies on practical measures for MSMEs in getting access to markets, financing and advanced technologies. It provides guidelines to MSMEs on access to financing, markets, and advanced technologies and recommendations to Governments for developing policy guidelines and establishing financial incentives schemes.

Countries of the UNECE region can benefit from customization of the Guidelines and Best Practices to their national circumstances. Albania is one of the pilot countries for such customization that takes into consideration specific conditions of the country. This study includes analysis of the environment in Albania that MSMEs face as a result of the Covid-19 crisis; best practices in the area of energy efficiency and renewable energy implemented in Albania that show how MSMEs may respond to the current challenge or similar challenges in the past; measures that MSMEs in Albania can undertake in delivering energy efficient products and in providing renewable energy equipment that would help them restore business confidence; and recommendations to the Government of Albania in creating an enabling environment for MSMEs to facilitate an economic recovery that would be in line with sustainable development goals. In Albania, the severe health crisis caused by COVID-19 has forced the Government to introduce drastic measures such as lockdown, shutdown, quarantine, and restriction to mobility, which in turn affected the business environment. Most of the MSMEs had a significant impact from the pandemic and battled to keep their operations. Immediate measures were necessary since the companies were not ready and were insecure about their response due to background knowledge of the virus and lack of certainty in projections.

There is a definition of MSMEs in the Republic of Albania, and according to INSTAT (Albanian Statistical Office) all state administrative bodies shall use the definition and the term as per EU recommendation 2003/361. The only difference in the domestic legislation is differences in the criteria related to the turnover and the balance sheet, but the staff headcount criteria are the same, which reflects the market size and possibilities. Therefore, according to the domestic legislation and the accepted statistical references, the definition of the MSMEs is presented in Table 1.

Table 1: Definition of MSME in Republic Albania

Enterprise category	Number of employees
Micro-enterprises	1 - 9
Small Enterprises	10 - 49
Medium enterprises	50 - 249

Source: Law No. 10042 dated 22.12.2008 with some amendments and Law No. 8957, dated 17.10.2002 on "Small and Medium Enterprises", amended

Table 2 shows the active entities by size and the share of the MSMEs in the economy of the country.

Table 2: Active entities by size and net sales

Enterprises category	Active entities	Net sales [%]
Micro-enterprises	96,924	20.9%
Small Enterprises	5,736	32.2%
Medium enterprises	1,251	25.8%
Large enterprises	179	21.1%

¹ <https://unece.org/info/Sustainable-Energy/pub/351153>

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

Total	104,090	100%
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Source: "Statistics on MSMEs, 2019", INSTAT March 2021

According to this, the share of MSME in the total number of entities in the country is 96.7%. MSMEs employ approximately 85% of all workforce in the country. This sector is the main driving force of the economy. On the other hand, because of the nature of the MSME sector (the number of employees and the capital that they can accumulate), they are also the most vulnerable. This big share of MSMEs in the labour and economy market, combined with their vulnerability, makes them the most affected sector in any crisis, including COVID-19. Logically, a significant part of the measures undertaken during the crisis should be aimed at MSMEs.

Due to the different impacts on specific sectors (for example, tourism was affected significantly more than other sectors), Figure 1 shows the number of active entities by sector and by size. The most represented sectors in the country's economy are MSMEs.

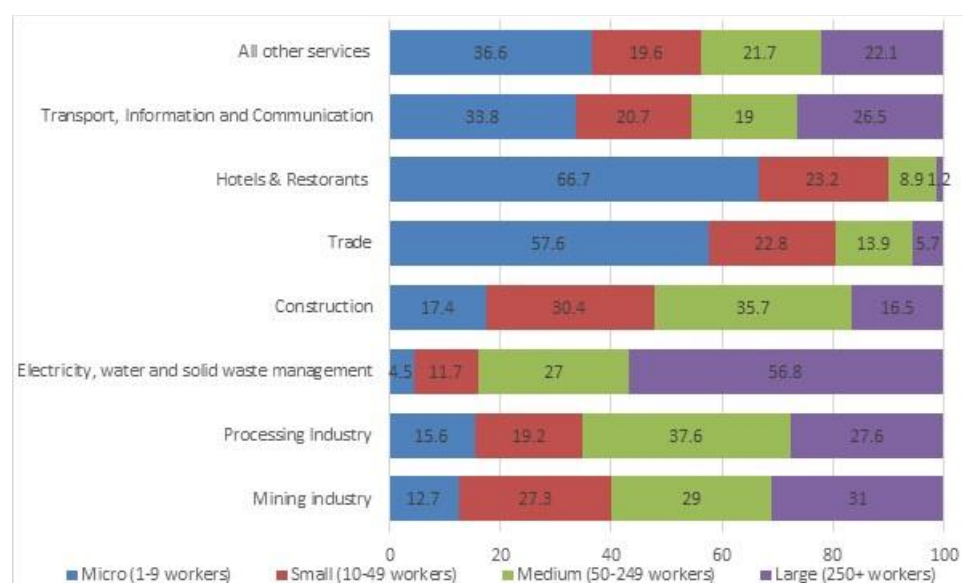


Figure 1: Number of active business entities by sector and by size (2019)

Source: "Statistics on MSMEs, 2019", INSTAT, 2021

The division of sectors shows also that the MSMEs related to energy-efficient products and renewable energy equipment are part of processing industry, electricity (SHPPs, WPPs, SPVPPs, Biomass PPs) and construction MSMEs. The consultant interviewed representatives of 21 enterprises and categorized the results of the interviews into five groups"

1. MSMEs are dealing with EE windows and EE outside doors. There are more than 250 MSMEs in Albania dealing with full production or components of those and they are distributed uniformly in all regions of the country.
2. MSMEs dealing with EE thermal insulation materials. There are 22 MSMEs dealing with full production of all thermal insulation categories in Albania.
3. MSMEs dealing with EE boilers using wood, pellets and olive pomace residues. There are four MSMEs in Albania dealing with full production of boilers and seven dealing with production of boilers' components.
4. MSMEs dealing with solar thermal hot water systems (SHWSs). There are five MSMEs in Albania dealing with full production of SHWSs and three dealing with production of SHWS's s' components.
5. MSMEs dealing with manufacturing enterprises producing components for EE and RE technologies. There are 58 MSMEs in Albania dealing with production of parts for the small hydropower plants (SHPPs), solar photovoltaic systems (SPVSs), wind power plants (WPPs), and biomass power plants (BioPPs).

The MSMEs faced many problems during the Covid-19 crisis since it started in March 2020: lockdowns and

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

shutdowns were enforced, which affected the business as usual scenario. Demand for many commodities was reduced in minimum, people stayed at home and customer numbers for the companies lowered. Many projects, especially in SHPPs, WPPs, SPVSs and all other economic sectors stopped or reduced the number of employees on the sites. Other companies needed to organize their work schedules remotely and working at home was necessary, which in turn affected the production and the ability of the MSMEs to respond to their contractual obligations, which means delivering products. On the other hand, the closure of the borders in the country affected the supply of materials process. The MSMEs were not prepared to face the consequences of the immediate crisis and especially were not prepared for a prolonged effect of the pandemic. It is great hope, after 18 months of the Covid-19 pandemic, due to a strong vaccination programme from the Albanian Government (as of 25 June 2021 – there are 1 million people vaccinated with two doses) and the vaccine volumes for the whole population are secured.

The role of MSMEs in delivering energy-efficient products and in providing renewable energy equipment can become crucial in the COVID-19 pandemic and the post-COVID-19 recovery phase. According to the figures about the change of operations, it is clear that the MSMEs in delivering energy-efficient products and in providing renewable energy equipment have a huge market for internal needs and for exports. MSMEs need to be provided with necessary incentives to fulfill this crucial role. MSMEs can benefit from clear guidelines on access to financing, access to markets, access to advanced technologies, and a favorable environment created by proper government policies and legislation, which is the main focus of this study.

1. Analysis of the environment that MSMEs working in the area of energy efficient products and services and renewable energy equipment in Albania face as a result of the Covid-19 crisis

1.1. Methodology

The overall objective of the study is to develop a rapid assessment of the situation of the MSMEs in Albania, the status of the potential of the companies to invest in energy efficiency (EE) and renewable energy (RE) improvements in their business, as well as to give recommendations for the improvement of the investment environment for these technologies in the crisis period and the recovery period. In this context, a better understanding of the company's investment decisions in EE and RE measures and their key determinants is necessary to design appropriate policy pathways and appropriate actions to support and maintain the growth of the EE/RE sectors. The methodology used in this study includes the following tools and approaches:

1.1.1 Collection of primary data through an “MSME COVID-19 effects” survey

This survey was conducted anonymously, and the data gathered were analyzed to remove discrepancies and aggregate answers. The timeframe for the conduct of the survey was limited. 21 responses from companies classified as MSMEs in Albania were received. The share of MSMEs surveyed consists of 100% of industrial EE/RE producer enterprises related with EE/RE materials/ products/ parts/ equipment. At the same time the consultant contacted more than 10 service companies dealing with trading of EE/RE materials/technologies, 6 intellectual/knowledge providers and 5 associations/civil society organizations. However, those data entries were used for the general-purpose analysis of the overall investment environment in the crisis. While it is not claimed that this data is fully representative, the response rate of the survey with the additional information gathered from the focused interview process secures sufficient information to develop an appropriate analysis of the situation. In the one-month period, an “MSME COVID-19 effects” survey (see Annex I) was conducted through telephone and email communication by contacting the industry sectors, Chambers of Commerce and Industry, and other stakeholders interested in EE and RE initiatives.

1.1.2 Collection of primary data through interviews with selected MSMEs

For this study, 21 in-depth interviews were conducted, with a wide spectrum of companies in manufacturing, energy, industry, transport, service, agriculture, residential, intellectual services and tourism sectors. Along with the questions pertinent to the represented sector, interviewees were also asked about the additional financial needs imposed by the broader effects of the Covid-19 crisis and about potentials in investments in EE and RE during/post-crisis period. This interview process was crucial to gather qualitative information that would supplement the quantitative data received from the survey. The information collected is also used

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

in defining recommendations to enable a better investment environment for EE and RE in MSMEs in Albania.

1.1.3 Collection of secondary survey data

Following the application by Albania to join the European Union in 2009 and an official candidate status granted to the country in 2014, widespread structural reforms have been enacted in Albania in support of the accession process focused on “macroeconomic and fiscal sustainability, financial sector stabilization, energy reform, social assistance and disability reform, and territorial decentralization”.² As a result, accession talks commenced in March 2020.

At the national level, positive economic trends were noted prior to 2019, with robust growth, increased employment, a reduction in poverty, improvements in budget deficits and incomes,³ until the country was affected by the deadliest earthquake in 99 years in November 2019. More than two-thirds of Albania’s population is estimated to have been affected. There were significant damages to thousands of buildings and structures, with damages estimated at 844 million EUR and reconstruction costs at 1.07 billion EUR.⁴

Continued post-earthquake reconstruction efforts coincided with the COVID-19 pandemic, which resulted in considerable strain on the short-term economic progress with considerable investments required for physical reconstruction and health services. At the same time, the pandemic and related lockdown measures impacted key economic sectors and corresponding government, businesses, and household incomes. As a result, the economy contracted 10.2% into the second quarter of 2020, and then further 3.4% into the third quarter⁵, with public debt increasing to 76% of GDP in 2020⁶.

Despite the current challenges, the economic outlook remains positive, with forecasted GDP growth of 4.4% in 2021 (higher than the EU average⁷), primarily driven by the tourism and construction sectors, as well as continued private investment enabled by continued government reforms.⁸ This outlook for Albania is supported by its “stable outlook” credit ratings (Moody’s B1, Standard & Poor’s B+)⁹. The Albanian Leke (ALL) is the national currency, although the EUR is widely accepted and flows freely into Albania through neighboring trade, foreign direct investment, and remittances from Albanians working in the EU. The Albanian national financial institutions are reportedly considering the future feasibility of adopting the single currency upon admittance into the EU. The value of the ALL is determined under a ‘free-floating’ exchange rate regime.¹⁰ The Bank of Albania is legally independent and able to determine monetary policies and interventions, which have so far provided macroeconomic and financial stability through more recent market shocks¹¹.

From 2015 to 2018, with high in-flows of the EUR, export growth, and foreign direct investments, the ALL was gaining exchange points over the EUR, which has led to financial interventions and a ‘de-euroisation’ to

² World Bank. 2021. The World Bank in Albania <https://www.worldbank.org/en/country/albania/overview#1>

³ BTI Transformation Index. 2020. Albania Country Report 2020 <https://www.bti-project.org/en/reports/country-report-ALB-2020.html>

⁴ Erebara, Gjergj. 2020. Albania Sets Quake Repair Cost at Over Billion Euros. BalkanInsight: 5 February. <https://balkaninsight.com/2020/02/05/earthquake-reconstruction-would-cost-more-than-1-billion-albania-gov-says/>

⁵ World Bank. 2021. The World Bank in Albania <https://www.worldbank.org/en/country/albania/overview#1>

⁶ Santander Trade. 2021. Albanian Economic Outline <https://santandertrade.com/en/portal/analyse-markets/albania/economic-outline>

Also see Statista. 2021. Albania: National Debt from 2015-2025 <https://www.statista.com/statistics/531311/national-debt-of-albania/#:~:text=In%202018%2C%20the%20national%20debt,around%2011.18%20billion%20U.S.%20dollars>

⁷ World Bank. 2019. Data <https://data.worldbank.org/>

⁸ Santander Trade. 2021. Albanian Economic Outline <https://santandertrade.com/en/portal/analyse-markets/albania/economic-outline>

⁹ Trading Economics. 2021. Albania- Credit Rating <https://tradingeconomics.com/albania/rating>

¹⁰ Bank of Albania. 2021. Official Exchange Rate https://www.bankofalbania.org/Markets/Official_exchange_rate/

¹¹ Jarvis, Christopher. 2000. The Rise and Fall of Albania’s Pyramid Schemes. Finance & Development 37 (1). Washington, D.C. (IMF).

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

reduce the risks of major use of the EUR^{12 13}. In 2020, Albania accepted emergency financial assistance from the International Monetary Fund to help in balancing national payments with a value of 150 million EUR loan and it is important to be mentioned that the capacity for repayment is considered adequate¹⁴ and the banking sector has remained stable with sufficient reserves to mitigate against these risks^{15 16}.

State involvement in the economy is limited with the exception of the energy sector, while the private sector amounts to more than 80% of employment.¹⁷ As detailed in Table 3-1, by GDP and employment, the most significant industries include agriculture (although the high employment share versus low GDP share reflects that farms are small operations or subsistence farming with lack of modern equipment, unclear property rights, highly fragmented land ownership, and limited area of cultivation^{18 19}), industry (particularly manufacturing, which contributes 6.3% to the national GDP), and services (particularly tourism which contributes over 20% to the national GDP).

Table 1-1: Albanian Economic Sectors

	Agriculture	Industry	Services
Contributing Sub-Sector	Wheat, corn, oats, potatoes, vegetables, olives, tobacco, fruits, sugar beets, vines, livestock and dairy products	Food processing, textiles and clothing, construction, timber, oil, cement, chemical products, mining, transport, and hydropower energy	Trade, transport, tourism, public administration and defense, education, and human health; and all other sectors not mentioned above
Employment by Sector (%)	36.1	20.2	43.7
Share of GDP (%)	18.6	20.1	61.3

Source: Adapted from: Santander Trade. 2021. *Albania Economic Outline* <https://santandertrade.com/en/portal/analyse-markets/albania/economic-outline>; and *Bashkia Tiranë. 2019. Invest in Tirana* https://www.tirana.al/uploads/2019/1/20190130130213_20180528123100_11-invest-intirana.pdf

In a recent report published by the EBRD²⁰, the private industrial sector is described as dominated by a “large number of very small firms, the majority of which never grow into the next stage of the lifecycle”, with barriers to the sectors performance and development being due to:

- Widespread informality: Prevalent, constrains business development through reduced access to finance, decreases government revenues and affects economic growth and competitiveness with weak integration into global supply chains;
- Low competitiveness of the economy: Insufficient foreign direct investment;
- Under-development of infrastructure: Insufficient cross-border integration and public investment;

¹² European Commission. 2019. 2019 Economic Reform Programmes of Albania, Montenegro, North Macedonia, Serbia, Turkey, Bosnia and Herzegovina and Kosovo. Institutional Paper 107, July 2019 https://ec.europa.eu/info/sites/default/files/economy-finance/ip107_en.pdf

¹³ Bank of Albania. 2020. De-euroization Package https://www.bankofalbania.org/Financial_Stability/De-euroization_Package/

¹⁴ International Monetary Fund. 2020. IMF Executive Board Concludes 2020 First Post-Program Monitoring with Albania <https://www.imf.org/en/News/Articles/2020/11/25/pr20358-albania-imf-executive-board-concludes-2020-first-post-program-monitoring>

¹⁵ Bank of Albania. 2020. Financial Stability Report- 2020 H1 https://www.bankofalbania.org/Publications/Periodic/Financial_Stability_Report/

¹⁶ European Commission. 2019. 2019 Economic Reform Programmes of Albania, Montenegro, North Macedonia, Serbia, Turkey, Bosnia and Herzegovina and Kosovo. Institutional Paper 107, July 2019 https://ec.europa.eu/info/sites/default/files/economy-finance/ip107_en.pdf

¹⁷ BTI Transformation Index. 2020. Albania Country Report 2020 <https://www.bti-project.org/en/reports/country-report-ALB-2020.html>

¹⁸ CIA.2021. Albania <https://www.cia.gov/the-world-factbook/countries/albania/#economy>

¹⁹ Santander Trade. 2021. Albania Economic Outline <https://santandertrade.com/en/portal/analyse-markets/albania/economic-outline>

²⁰ EBRD. 2019. Albania Diagnostic 2019 <https://www.ebrd.com/publications/country-diagnostics>

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

- Unreliability of the energy supply: Reliance on climatically risky hydropower, frequent power outages; and
- Labour shortages and skills mismatches: Significant emigration of working population, limited vocational training.

These findings are supported by the World Bank’s Ease of Doing Business analysis. Detailed in Table 1-2, the analysis shows relatively high scores in starting a business and trading across borders, notable progress in getting electricity, but relatively low scores in a number of areas, including dealing with construction permits, protecting minority investors, and enforcing contracts.

Table 1-2: Ease of Doing Business Rankings for Albania

	Rank 2020 (out of 190 economies)	Score 2020	Score 2019	Trend of Score
Ease of Doing Business	82	67.7	67.0	↑
Starting a Business	53	91.8	91.7	↑
Dealing with Construction Permits	166	52.7	52.6	↑
Getting Electricity	107	71.0	64.6	↑↑
Registering Property	98	63.4	62.9	↑
Getting Credit	48	70.0	70.0	↔
Protecting Minority Investors	111	46.0	46.0	↔
Paying Taxes	123	65.2	64.9	↑
Trading across Borders	25	96.3	96.3	↔
Enforcing Contracts	120	53.5	53.5	↔
Resolving Insolvency	39	67.7	67.4	↔

Source: World Bank. 2021. *Ease of Doing Business in Albania*. <https://www.doingbusiness.org/en/data/exploreconomies/albania#>

1.1.4 Desk analysis

While at present the global, let alone domestic, literature is yet scarce in a rigorous assessment of Covid-19’s impact on the investment environment of MSMEs with regards to EE and RE investments, the few available reports are used throughout the analysis either to compare the global and local expectations or to cross-reference expected effects in Albania. Limited and selected administrative data were collected from the Government to obtain an initial impression of the effects of the crisis on the MSMEs. Administrative data have also been collected on the planned and executed fiscal spending from the Government, Ministry of Finance. The State Budget and its contingency Covid-19 budget, as well as all Government decrees since the proclamation of the state of emergency, have been a vital source of support for MSMEs and for information. Data pertinent to the labor market response and the execution of the government subsidies for employment retention measures have been collected from various sources.

1.2. General impact of COVID-19 crisis on MSMEs

The effects of the COVID-19 pandemic on the economic status and productivity growth of the MSMEs were clearly outlined in the UNECE publication “Guidelines and Best Practices for Micro-, Small and Medium Enterprises in Delivering Energy-Efficient Products and in Providing Renewable Energy Equipment”²¹. It showed how MSMEs respond to various measures and uncertainties that arise from the mix of restrictions, government measures, and the behavior of the people. Investment cycles are broken for some of the MSMEs and substituted by emergency measures to keep the businesses afloat while some of the MSMEs are seeing how the markets change and try to adapt their business model to face a new reality. Within this study, these effects are analyzed in a local context.

²¹ <https://unece.org/info/Sustainable-Energy/pub/351153>

In Albania, there are no official data that could provide a clearer picture of the state of the MSMEs or on the effectiveness of the economic and fiscal measures the Government has put out in four subsequent supporting measures cycles. Therefore, according to the “MSME COVID-19 effects” survey, the interviewed enterprises were divided according to the shares shown in Figure 1-1.

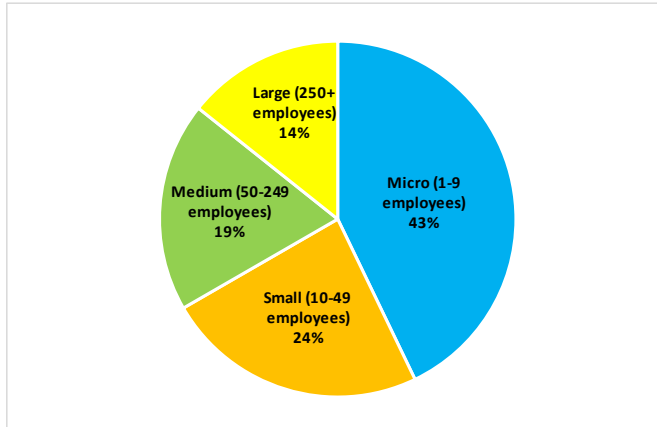


Figure 3-1: Categorization of interviewed enterprises

Source: Data from the Survey-MSMEs COVID-19 effects

According to the “MSME COVID-19 effects” survey, the COVID-19 crisis has affected in different way the enterprises and the respective results are presented at Figure 1-2.

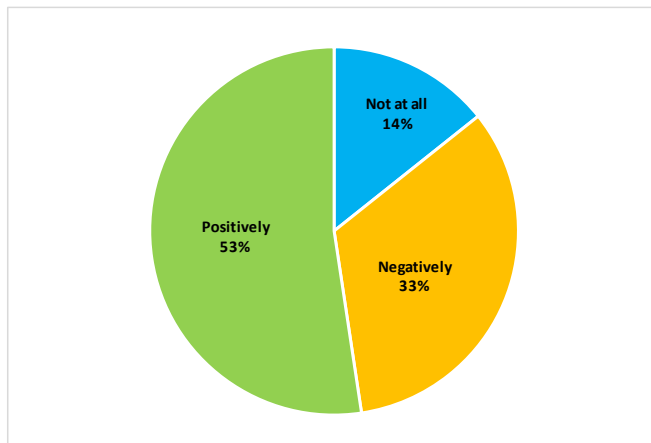


Figure 1-2: Impact of COVID-19 on enterprise revenues

Source: Data from the Survey-MSMEs COVID-19 effects

Figure 1-3 shows that almost all 21 enterprises interviewed are at the same time producing both final and intermediate products according to the companies that participated in the “MSME COVID-19 effects” survey.

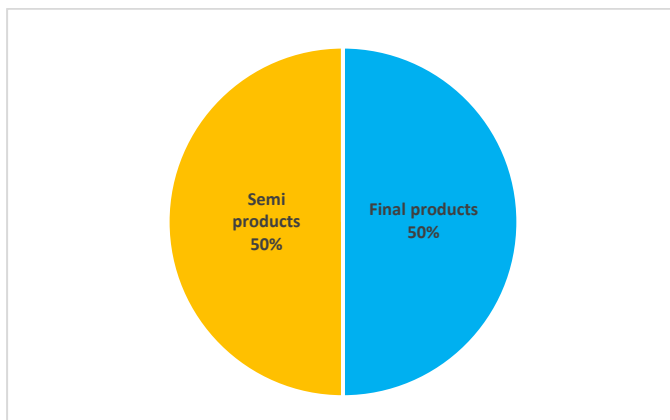


Figure 1-3: Types of products produced by the enterprises

Source: Data from the Survey-MSMEs COVID-19 effects

EE/RE enterprises are being trained to fulfill internal market and at the same time they are already exporting and some of them are interested to enter to new markets and the results of the “MSME COVID-19 effects survey” are shown in Figure 1-4. Integration of EE/RE enterprises to other market will give them great possibilities to increase their quality and at the same time to increase their volumes and better utilize their facilities, which will bring unit cost reduction for their products.

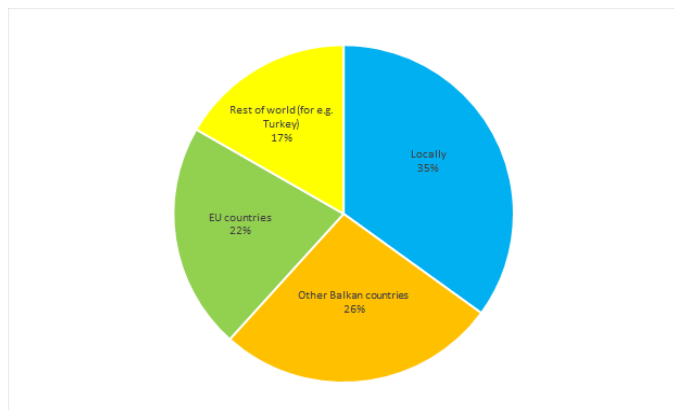


Figure 1-4: Regions where enterprise are actually operated and were they are interested for exploring export possibilities

Source: Data from the Survey-MSMEs COVID-19 effects

Figure 1-5 shows that almost all main EE/RE materials and systems are produced in Albania according to the survey “MSME COVID-19 effects survey” and this is a very good base for expansion of their business and also for other new enterprises, which will start their production activities in the upcoming years.

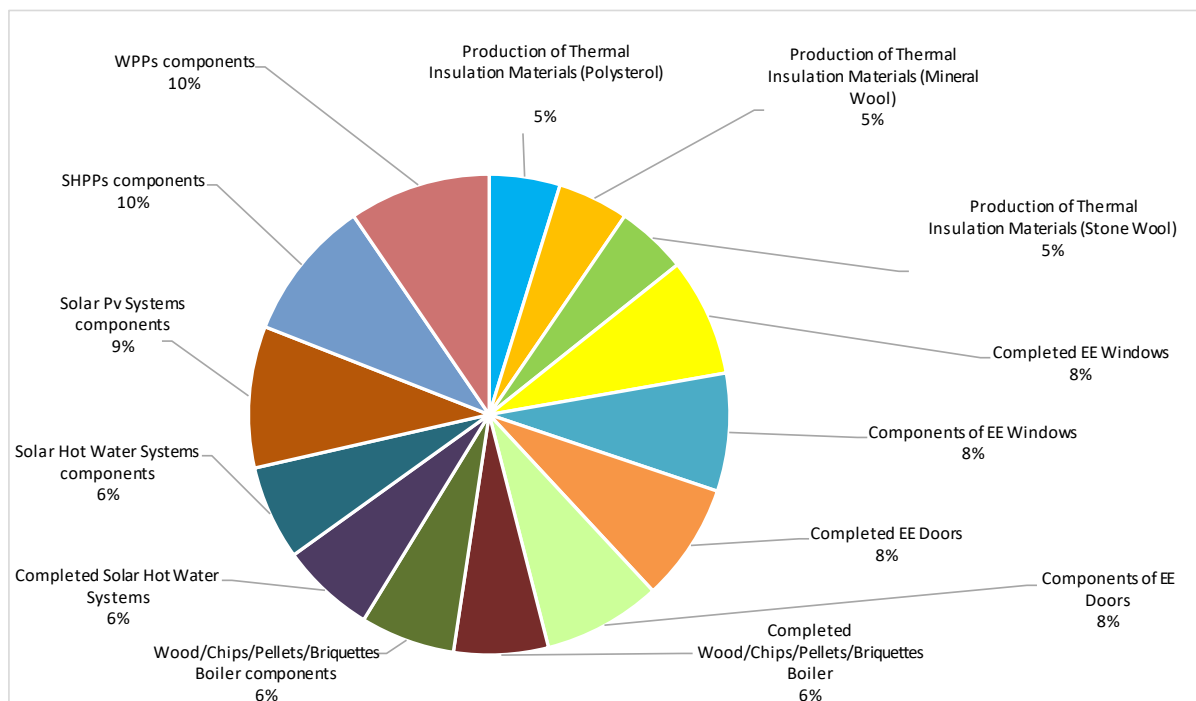


Figure 1-5: Kinds of EE products or RE equipment produced by Albanian MSMEs

Source: Data from the Survey-MSMEs COVID-19 effects

Based on different publication of INSTAT, Ministry of Finance, Monitor Newspaper²² the pandemic crisis significantly affected the manufacturing of metal products, followed by transport and hospitality;

²² <https://covid19.monitor.al/>

construction sector reported the most closures, with 19% stated they were not operating during the period. Having in mind that more than two-thirds of the energy efficiency industry and one-third of the renewable energy companies are intrinsically linked with the construction sector, it can be assumed that the effects of the crisis are being observed in these sectors as well. Only two sectors - manufacturing of food, beverages, clothes, tobacco and wood and paper, and wholesale and retail trade - are reporting increased revenues (7.5% and 5.9%, respectively). This is expected due to increased demand for the products because of the anti-COVID measures and lockdowns imposed throughout the period.

2. Impact of working environment on MSMEs in Albania as a result of the Covid-19 crisis

An important study related to the working environment of MSMEs in Albania as a result of the Covid-19 crisis “The Impact of the Covid-19 Pandemic on Enterprises in Albania” was carried out by “Business Albania – Albanian Voice of Business²³” supported financially from the EBRD. This chapter presents a summary of the survey carried out among 12 enterprises and the main conclusions of this study are the following:

- The crisis has created unprecedented operational challenges for 76 per cent of surveyed enterprises. Near one third of enterprises reported a complete shutdown of their operations, whereas almost 40 per cent remained partially operational at the time of the survey. Another 7 per cent had to adjust to a fully remote working mode to be able to maintain business operations. The hardest sectors, in which the vast majority of businesses temporarily suspended operations were hospitality (78 per cent), transportation (63 per cent) and textiles (43 per cent).
- Prolonged lockdown measures would pose a serious threat to the sustainability of 83 per cent of surveyed enterprises. One fifth of enterprises anticipated they would be able to operate for only 1–8 weeks and another one fifth anticipated they could operate for 2–3 months. Some 16 per cent anticipated they could survive for 3–6 months, whereas another 9 per cent indicated that their business could remain open for the next six months to one year, and 7 per cent anticipated they could operate for more than one year. Given the constraints on their operations, enterprises in the transportation, textile and hospitality sectors showed the weakest durability with 63 per cent, 24 per cent and 21 per cent respectively anticipating that their business continuity would be cut after one week.
- Falling consumer demand and disrupted supply are straining the finances of enterprises. More than half of enterprises surveyed assessed the revenue decline at 50 per cent or more, whereas for more than one fifth the revenue dropped between 20 and 50 per cent. A relatively small proportion (9 per cent) assessed the revenue decline as low (up to 20 per cent) and 3 per cent noted a positive impact of the crisis on their businesses. By sector, highest shares of enterprises noting a decline of 50 per cent or more in revenue were in hospitality (72 per cent), construction (67 per cent), transportation (57 per cent), food and beverage (56 per cent) and retail/ sales (56 per cent).
- More than a quarter of enterprises surveyed do not have access to any funding, whereas 27 per cent rely on loans and grants to overcome the challenges resulting from the COVID-19 crisis. On average, 30 per cent of enterprises have their own cash savings. The highest shares of enterprises by sector that lacked any type of funding were in food and beverage (49 per cent), textiles (48 per cent), agriculture (44 per cent) and hospitality (41 per cent). Sectors with the largest access to loans and grants were transportation (57 per cent), agriculture (44 per cent) and construction (38 per cent). At the same time, the largest shares of enterprises that had cash reserves were in the information and communication (50 per cent), retail/ sales (48 per cent) and food and beverage (37 per cent) sectors.
- Alarmingly, more than 40 per cent of enterprises surveyed dismissed workers due to COVID-19. Of enterprises that dismissed workers, almost a half dismissed one third of their workers, while more than 30 per cent dismissed between 1 and 5 per cent of workers. By sector, the largest shares of enterprises that had already significantly reduced their workforce were in hospitality (75 per cent), transportation (63 per cent), textiles (62 per cent) and agriculture (60 per cent).

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

- Despite current challenges the largest share of enterprises (92 per cent) are expressing readiness to fully resume operations. Almost 30 per cent of enterprises would need 1–3 months to fully restore operations, while almost 20 per cent would require more than six months. Some 18 per cent anticipated that it would take 1–4 weeks to complete recovery efforts and another 17 per cent expected that their business activity could be resumed in less than one week.
- Policy recommendations stemming from the survey are aimed at supporting businesses to keep their operations afloat and maintain the workforce. These include financial/tax relief measures for enterprises, access to liquidity (cheap or interest free loans), wage subsidies and deferral of VAT payments, among other things. At the same time, the report proposes a number of sector-specific recommendations and highlights the need to review the current financial aid packages for businesses in the most affected sectors, including textiles, hospitality and tourism, agriculture and others.

The COVID-19 pandemic has had a devastating effect on Albanian enterprises and employment. The Government of Albania has adopted a series of measures, including two sovereign guarantee funds to keep the economy running and to support enterprises in navigate the crisis. Albanian businesses propose to the Government of Albania the following recommendations for consideration. These recommendations that stem from the survey would enable enterprises, workers and their families to face the challenges resulting from COVID-19.

- **Low interest loans:** The interest rate must be 0 (zero) per cent in the first year and the payment of the loan principal must be postponed for one year. Agreements with the banks should be reviewed given the hesitation of the banking sector to provide loans for employees' wages. Further financial assistance is needed to ease liquidity shortages consisting of quick loans with soft terms and long-term repayment plans, among other things.
- **Wage subsidies:** The second sovereign guarantee fund should be used for the gradual activation of the economy and granting loans to enterprises that resume work. Larger enterprises need grants in the form of cash to pay their employees.
- **Tax relief measures for the most severely affected sectors:** The deadline for tax payment should be extended for three months for enterprises in sectors that are most affected, including hospitality and tourism, construction, textiles and leather. The support for recovery should align with the level of disruption suffered by enterprises.
- **In the tourism sector,** each accommodation unit should establish a COVID-19 coordinator, who will be trained by competent authorities on all procedures and preventive measures to be taken. The coordinator will then train his or her staff. The coordinator should draft an internal regulation in accordance with the national protocols, assign specific tasks to the staff and take measures to supply the necessary tools and manage the logistics. In any case, all staff must be equipped with personal protective equipment. The Government should provide interest-free financial guarantees for all contracts that are postponed until 2021. In addition, the Government should establish a mechanism to motivate locals to spend their holidays in Albania.
- **In the agricultural sector,** the Government of Albania must significantly increase grant funding for all Albanian farmers who have suffered significant losses due to COVID-19.
- **In the transportation sector,** import-export procedures must be accelerated. The procedures were reportedly very slow, which created additional challenges for transportation enterprises.
- **In the textile sector,** all orders for the production of clothes and shoes for the police, the army and institutions whose employees wear a uniform should be given to the fashion manufacturers operating in Albania to help them survive.
- **In the information and communication sector,** enterprises should conduct COVID-19 awareness raising campaigns. Subsidies should be granted to enterprises providing free Internet access to students attending online classes who cannot afford to pay Internet subscription fees.
- **Business opening protocols** should be developed in consultation with business associations and with the intention to accelerate recovery and minimize enterprise costs.
- **Public transport:** Public and intercity transit was banned during the state of emergency causing serious challenges to the movement of employees and disruptions to business operations. Immediate measures should be taken to prepare for and manage another transit ban that may be enacted if there is a resurgence in COVID-19 cases.

- **Public-private dialogue for COVID-19 recovery:** The financial aid package for enterprises, including those in the most affected sectors, such as fashion manufacturers, hospitality and tourism, and agribusiness, should be reviewed and adapted to their specific needs.

3. Overview of specific conditions MSMEs in Albania face in the new working environment

3.1 Governmental measures

In Albania, COVID-19 cases appeared in early March, and on 11 March 2020 the Government imposed mobility restrictions to prevent further spread of the disease. Albania is particularly exposed to the negative effects on the economy of the pandemic because it is strongly supported by the tourism sector and its intensive relations with some EU economies were severely affected by the pandemic.

The Government has taken swift measures to manage the socio-economic situation created by the pandemic to help economic agents withstand the difficult conditions and to establish the possibilities for a restart of the activity at the best possible manner.

The government has provided help for the most affected categories families with social assistance and MSMEs. Total additional help for families with social assistance and MSMEs was in the amount of 12.7 billion ALL²⁴. From these funds have benefited the categories in most need such as unemployed people, people receiving economic assistance, employees of businesses closed because of COVID-19, small businesses with a turnover of up to 14,000,000 ALL etc. The second package was adopted on 19 March 2020 consisting of 23 billion ALL whereas the third package was adopted on 15 April 2020 consisting of 22 billion ALL and lasting until 13 August 2020, when a fourth smaller package of 135 million ALL was adopted for public transport workers. 65,469 people have benefited from the first package while 172,172 people have benefited from the second one. 38,829 businesses have benefited from the first package while 47,388 businesses have benefited from the second one.

Fiscal indicators according to the consolidated budget prepared by Ministry of Finance and Economy (MFE) shows a significant impact of COVID-19. In the first 7 months of 2020, revenues have fallen by 260 million EUR or 87% realization compared to the same period of 2019. Meanwhile, the total expenditures increased by 4%, creating a budget deficit of around 400 million EUR. Several media reports predicted a decrease of SMEs, especially small businesses with 1-4 employees or self-employed persons. Although it should be mentioned that such reports are not official yet by INSTAT (Albanian Institute of Statistics). The Government estimates that Albanian GDP growth for 2020 is expected to be -5%. The good news is that the Government and IMF predict that the Albanian economy will emerge from the recession during second half of 2021 and will have an increase of 1.8-3.5% according to the WB and EBRD forecasts. First six months of 2021 show an increase and according to the preliminary values published by the respected Monitor newspaper the growth has been 3.1%.

It is expected that by the end of 2021 the pandemic will be under control through vaccines, drugs or herd immunity and the economy will gradually return to functioning normally. To achieve an economic recovery as fast and smooth as possible, the Government drafted the national plan "Albania 2030", which will ease the fiscal burden of businesses. Government has put in place programmes to promote employment of the persons who remained unemployed as a result of COVID-19.

On 25 March 2020, the Supervisory Council of the Bank of Albania (BoA) decided to reduce the policy rate from 1.0% to 0.5%, reduce the interest rate for the overnight lending facility from 1.9% to 0.9%, and maintain the interest rate for the overnight deposit facility unchanged at 0.1%.

BoA has increased the operational capacities to guarantee the supply of the economy with currency and banknotes as well as to ensure the smooth functioning of the electronic payment system.

BoA has adopted the operational strategy of unlimited liquidity into the banking system. Through this strategy,

²⁴ 1 Euro=122.5 ALL (as average value for the period 11 March 2020 - 25 June 2021)

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

the banking sector, businesses, households and the public sector will have the possibility to withdraw at the BoA all the necessary liquidity required by them.

The Supervisory Council decided to ease the postponement procedures by three months of loan instalments to businesses and households affected by the crisis, by providing the banking sector with the necessary regulatory space to do so. Until the end of June 2020, the distribution of dividends from 2019 and 2020 to banks is suspended.

On 28 May 2020, the BoA announced the temporary suspension of payment of loan instalments for all categories of customers for an additional period from 1 June to 31 August 2020. It also temporarily suspended the creation of reserve funds for real estates obtained instead of the payment of loans until December 2020. As of 28 May 2020, banks can restructure current loan agreements in order to find adequate solutions depending on borrowers' solvency until 31 December 2020 without additional provisioning costs and without deteriorating the status of the borrowers. The current regulation and requirements related to the restructuring of loans will be in place for one more year until January 2022.

3.2 Fiscal policy to support population and business companies

The MSMEs faced severe financial problems due to the pandemic and the business climate is unfavorable. The reduction of costumers because of shutdowns and quarantines affected the companies and their income. Also, closing of the borders created difficulties in gaining supplies and delivering the products. MSMEs, because of their small size and resources, are unable to meet the changes of the environment Their resilience toward the effects of the crisis is unsustainable for longer periods and urgent governmental assistance was necessary, in form of no-interest loans and subsidies.

The prolonged duration of the crisis made the companies adjust to the changes. The distancing rules created reorganization of the workspaces. Teleworking is one of the safest ways to respond to the crisis, but in the case of production processes, it reduces the capacity of the companies to respond to the ongoing contractual obligations. Many of the companies are focusing only on the most important projects which results can be achieved through working from home.

Automation of the processes and distant control can improve the ability of the companies to meet their demand. With the implementation of advanced energy efficiency products and improvements of the production processes, the companies can respond to the new working environment. Due to the financial problems as well, companies need help to redesign their work environment and tailored governmental programmes are necessary to help the MSMES through the crisis.

Government has taken swift measures to manage the socio-economic situation created by the pandemic; to help economic agents withstand the difficult conditions; and establish the possibilities for a restart of the activity at the best manner as possible. In this framework, the main public institutions in Albania have undertaken continuous coordinated measures, to highly coordinate the joint efforts against this invisible enemy and the damage it is causing in our life. The undertaken measures aim at mitigating the negative impacts on the welfare of enterprises and households, as well as establishing the premises for a very rapid recovery of economy in the following period. The government has provided help for the most affected categories in the amount of 12.7 billion ALL. Progressive Update Report based on the figures of the Ministry of Finance and Economy Packages Performance (up to 24 May 2021) are presented in Table 3-1 and Figure 3-1.

Table 3-1: Progressive update on MFE Package Performance

Package 1	No. of Requests	No. of Businesses	No. of Citizens	No. of Businesses	No. of Citizens	Paid Fund
Package 1 – "War wage" 1st Instalment	39,216	38,930	65,469	38,829	65,339	1,697,826,000
Package 1 – "War wage" 2nd Instalment				38,770	65,175	1,694,550,000
Package 1 – "War wage" 3rd Instalment				38,633	64,842	1,685,892,000
Package 1 – Doubling of Unemployment Pay 1st Instalment			Max 3100		2,257	58,682,000

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

Package 1 – Doubling of Unemployment Pay 2nd Instalment	Automated Procedure	Max 3100	Automated Procedure	2,349	61,074,000	
Package 1 – Doubling of Unemployment Pay 3rd Instalment		Max 3100		1,921	49,946,000	
Package 1 – Doubling of the Economic Assistance 1st Instalment		62,960		62,960	276,292,654	
Package 1 – Doubling of the Economic Assistance 2nd Instalment		62,840		62,840	275,292,720	
Package 1 – Doubling of the Economic Assistance 3rd Instalment		10,504		10,504	40,767,924	
Summary (ALL)	39,216	38,930	211,073	38,829	130,556	5,840,323,298
Package 2	No. of Requests	No. of Businesses	No. of Citizens	No. of Businesses	No. of Citizens	Paid Funds
Package 2 – Measure 1	1210	833	9429	819	9,419	376,760,000
Package 2 – Measure 2	15030	10505	65448	10,461	65,415	2,616,600,000
Package 2 – Measure 3	33101	31766	68260	31,688	68,260	2,730,400,000
Package 2 – Measure 3	1202	1017	4920	1,004	4,920	196,800,000
Package 2 – Oilmen	3	2	721	2	721	28,840,000
Package 2 – Complaints	4318	3626	23486	3,414	23,437	937,480,000
Summary (ALL)	54,864	47,749	172,264	47,388	172,172	6,886,880,000
Total Funds Disbursed (ALL)					12,727,203,298	

Source: Ministry of Finance

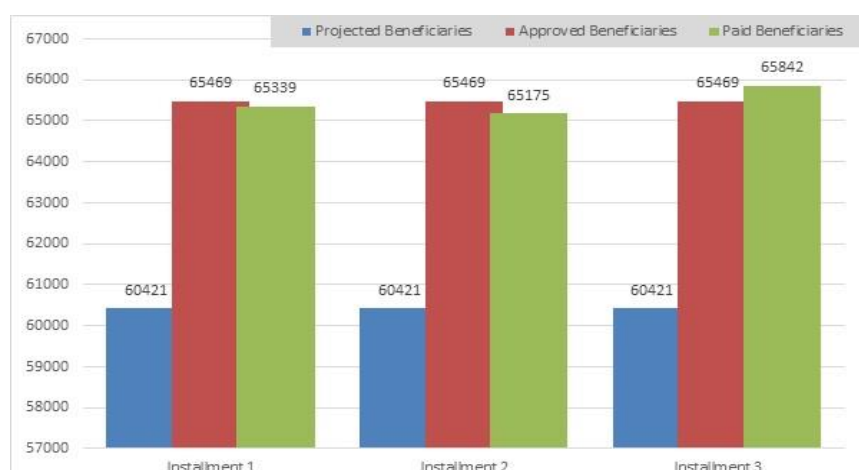


Figure 3-1: Financial Assistance Installments

Source: Ministry of Finance

The total amount of financial support has been 103.45 million EUR, which has been distributed to approximately 200,000 inhabitants of Albania and 88,000 MSMEs.

3.3 Sovereign Guarantee Instrument

The Government also supports the private sector through the instrument of the Sovereign Guarantee in dealing with the situation. The Council of Ministers has approved two instruments of the Sovereign Guarantee up to a total amount of 26 billion ALL (approx. 210 million EUR). As June 2020 was the deadline for applying for Sovereign Guarantee I, only 57% of the amount available has been received. Meanwhile, the application and benefit from the Sovereign Guarantee II has been even more limited, and the deadline has been extended from the initial deadline of 2 August 2020 until the end of September 2020.

Sovereign Guarantee I in the amount of 11 billion ALL:

- Businesses can apply through every local bank in Albania;
- Guaranteed 100% by the Albanian State;
- The three-month salaries of employees of companies affected by the Covid-19 situation are paid;
- Interest is subsidized by the Albanian Government;

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- 3-month period without repayment of the principal (grace period).

Sovereign Guarantee II in the amount of 15 billion ALL;

- Applied to businesses in all sectors of the economy;
- Applies to working capital needs and investments;
- Instrument that shares risk with banks, covering 60% of the principal of each loan;
- Preferential financing conditions, and repayment period up to 5 years;
- 6-month period without repayment of the principal (grace period).

The government rescheduled the profit tax deadline until after September 2020 for all businesses that had to stop their activity due to the pandemic. Balance sheet submissions were postponed until 31 July 2020 for businesses submitting balance sheets to NBCs online or directly.

The government will permanently erase late payment interests for active debtors who are current energy consumers, family or small business, with a financial effect of up to EUR 140 million. In total, about 180 decisions taken by the Council of Ministers, the Inter-Ministerial Committee on Civil Emergencies, and the Ministry of Health and Social Protection have been assessed, from which the main measures with direct or potential impact on the budget of the Municipality of Tirana have been grouped according to a typology. Table 3-2 provides the mapped list of measures and assessed impact.

Table 3-2: Mapped list of measures and the assessed impact

No	Typology of the Measures	Impact on the Municipality Budget
1	<i>Measures taken from the central government regarding the restriction of movement. These consist of some DCM and Decisions of the MoHSP</i>	<ul style="list-style-type: none"> - Restriction of the movement of people which has brought as a consequence the limitation of the activity for some businesses - Purchase of food packages for the needy - Purchase of aid for emergency situations - Additional fund for covering the transport of health staff
2	<i>Measures for the cancellation of mass gatherings and additional hygienic-sanitary measures</i>	<ul style="list-style-type: none"> - Reallocation of the expenditures for the disinfection of the city - Increase of the cleaning fund - Reduction of incomes from socio-cultural activities
3	<i>Restrictive measure on the closure or bars, restaurants and businesses</i>	<ul style="list-style-type: none"> - Postponement of the payment deadline for local taxes and tariffs and amnesty on some of them
4	<i>Legal acts that imposed the closure of pre- educational and educational institutions</i>	<ul style="list-style-type: none"> - Negative impact on the stopping of the payment made from the parents of the children to these institutions - Positive impact: reduction of the operational expenditures (food for children, electricity, water, etc.) - Neutral impact, reallocation of funds saved from this category by transferring them to social assistance provided by the municipality
5	<i>Change in the law "On income taxation and for the local tax system"</i>	<ul style="list-style-type: none"> - Payment of profit tax for taxpayers with turnover up to 14 million ALL is cancelled for 2020 - From 1 January 2021 the profit tax rate is 0% for taxpayers with turnover up to 14 million ALL per year - Exceptionally from the provisions of article 30 "Prepayments" of this law, for taxpayers with turnover over 14 million ALL, profit tax instalments for the tax periods of the second and third quarter of 2020 will not be prepaid. Payments of these instalments are postponed to the period April-September 2021. - Except for the provisions of article 30 "Prepayments" of this law, profit tax instalments for tax periods April- December 2020 for taxpayers who carry out economic activities in the field of tourism and active processing with ordering materials and call centers were not to be prepaid. Payments of these instalments are postponed to the period April-December 2021.

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6	<i>Facilitating the fiscal burden for businesses up to ALL 14 million, beneficiaries of economic assistance and beneficiaries of unemployment income during the period of natural disaster</i>	<ul style="list-style-type: none"> - Financial assistance for self-employed, unpaid family workers and employees according to this decision, in the amount of 26,000 ALL - Assistance to individuals who are beneficiaries of economic assistance and unemployment income by doubling the payment from 26,000 ALL to 52,000 ALL
7	<i>Approval of the sovereign guarantee with second level banks for companies</i>	<ul style="list-style-type: none"> - Sovereign guarantee is given, in the amount of 11 billion ALL, in favor of commercial banks to enable loans to cover the salaries of companies whose activity has been closed or affected by the reduction of turnover as a result of the decisions of the Council of Ministers. - The sovereign guarantee budget line worth 15 billion ALL is approved, which will implement the granting of loans to all legal entities / traders who have experienced a decrease in turnover or have closed their activity as a result of the measures taken to prevent the spread of the COVID-19 epidemic, to provide the necessary funds for working capital and investment.
8	<i>Financial assistance to current employees and laid-off employees as a result of COVID-19</i>	<ul style="list-style-type: none"> - Providing financial assistance of 40,000 ALL for employees in entities with annual turnover over 14 million ALL or persons who lost their jobs during the pandemic - Providing financial assistance of 16,000 ALL for the applicants of economic assistance - Providing financial assistance of 26,000 ALL, due to the situation created by COVID-19, for employees or former employees in urban and intercity public transport entities
9	<i>Amendment to the DCM "On the implementing provisions of law no. 92/2014, 'On VAT in the Republic of Albania'</i>	<ul style="list-style-type: none"> - The minimum registration limit for VAT is a turnover of 10 million ALL in a calendar year

Source: Ministry of Finance

4. Best practices in the area of energy efficiency relevant to MSMEs response to the Covid-19 crisis and post-crisis recovery in Albania

4.1 Energy efficiency thermal insulation in the Hotel Sector

Company: Ramizi Hotel

Size of company: Micro

Background

Përmet is a town and a municipality in Gjirokastrë County, southern Albania. The heating season starts at 13 November until 4 April and there are 1391 heating degree days. The outside design temperature for winter is -2°C, and for summer +31°C. Hotel Ramizi was built in 2000 with 3 floors and 15 rooms, 28 beds, a large restaurant and other hotel facilities. Hotel is using electricity, fuel wood and LPG for meeting its energy demand covering all energy services (space heating, space cooling, water heating, cooking, lighting and electrical appliances).

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In South-Eastern Europe (which includes Albania), energy consumption for space heating in the residential and hotels is often 1.5-2 times higher than the similar buildings in the Western Europe despite the fact that the number of heating degree days for Albania as an average is almost 1.5 - 2 times lower. Energy consumption for electricity and space heating is 200-250 kWh/m² per year, while energy consumption for the buildings of OECD countries has been 120-150 kWh/m² per year. In Scandinavia, the well-insulated buildings have a consumption of 50-100 kWh/m² per year. It is worth mentioning that the number of heating degree days in these countries is almost 1.5 - 2 times higher than in the countries of South-Eastern Europe.

Case Study

Budget: 19,578 EUR

The tourism sector was one of the most impacted sectors during the pandemic. Even though the accommodation facilities started reopening on 1 June 2020, there is uncertainty and a low level of trust due to the possible health dangers. Companies of the hospitality sector still are struggling to reach a normal level of activity. Because of these problems, Ramizi Hotel owner focused efforts on the thermal insulation of the outside walls to increase energy efficiency, reduce cost and improve environment. This was done during the months of March-April 2020 and it was perfect time because the hotel was empty due to Covid-19 restrictions.

Table 6-1 presents the main parameters of the technical and financial analysis.

Table 6-1: Main parameters of the technical and financial analysis

Nr	Main Parameters	Value
1	Area of outside walls which is going to be thermally insulated, m ²	544
2	Unit Price, EUR/m ²	24
3	Total Investment, EUR	19,578
4	Annual energy saved, MWh	33

Source: Consultant's own calculations for this case study

Energy efficiency calculation for introduction of thermal insulation of outside walls (outside part of Ramizi Hotel) shows the following results: total investment needed for this EE measure is 19,578 EUR; payback period is 7 years, internal rate of return (IRR) is 11.5%, energy savings are 33,000 kWh/year and energy saving costs are 0.0521 EUR/kWh.

4.2 Energy Efficient Windows in the Hotel Sector

Company: Freskia Hotel sh.p.k.

Size of company: Micro

Freskia Hotel is located in Gjirokastra city and is a micro-enterprise with 6 workers. Freskia Ramizi was built in 1994 with 6 floors and 50 rooms, 76 beds, a large restaurant and other hotel facilities. Hotel is using electricity, diesel fuel and LPG for meeting its energy demand covering all energy services (space heating, space cooling, water heating, cooking, lighting and electrical appliances).



Case Study

Budget: 47,307 EUR

Replacement of outside windows and doors requires replacement of actual single glass windows with double-paned windows with an airtight seal between the panes (glass + 8-12 mm of air + glass) placed in aluminum (Al) or polyvinyl-chloride (PVC) frames using profiles with thermal barriers.

Secure sealing of the casements is achieved by using special sealing materials (rubber) and good sealing between the frames and the walls is provided by polyurethane (PU) foam. Absolute sealing must be avoided, so as to secure the necessary minimal level of natural window ventilation. The minimal necessary natural ventilation is reached with special openings with shutters (automatic and manual) located in the PVC and Al profiles.

EE windows can contain, on the inner side of the glass pane, a layer of special emulsion, which does not allow heat to flow from the room to the outside environment. The space between glass panes, besides being filled with air, can also be filled with argon.

In the following Table 6-2 are presented the main parameters of the technical and financial analysis

Table 6-2: Main parameters of the technical and financial analysis

No	Main Parameters	Value
1	Area of outside doors and windows which are going to be installed, m ²	252
2	Unit Price, EUR/m ²	120
3	Total Investment, EUR	47,307
4	Annual energy saved, MWh	54.108

Source: Consultant's own calculations for this case study

Energy efficiency calculation for introduction of EE windows and outside doors for Hotel Freskia shows the following results: total investment needed for these EE measures are 47,307 EUR; energy savings are 54,108 kWh/year, payback period equal to 8 years, IRR is equal 12.5%, and energy saving cost is 0.0768 EUR/kWh.

4.3 Energy Efficiency Investment in Greenhouse Sector

Company: Bruka Seedling sh.p.k. (Greenhouse)

Size of company: Small

The business of Bruka Seedling sh.p.k. started operating in 1996 and since then has continued operating by increasing its activity every year. 19 workers are employed in this company. The enterprise operates in one shift for around 8-12 hours per day (depending on the season). The company is managing greenhouses and its area consists of 11,400 m² greenhouse, 350 m² storage, 50 m² offices, 80 m² boiler room and 200 m² of outside storage which is covered and a big area consisting of the entrance to the enterprise.

The business deals with the production of seedlings for different vegetables. This is done by sowing the seeds and by keeping them in optimal conditions in order to make their germination come as fast and as safe as possible. It was producing around 5,500,000 seedlings of different vegetables per year and the new greenhouse increased the capacity by producing an additional 5,500,000 plants. So, in total, after the implementation of this project, the farm produces 11,000,000 plants.

The company constructed a new greenhouse consisting of an area of 9,000 m². In order to make this possible the company requested a loan from Banka Kombetare Tregtare (BKT) (National Commercial Bank) with the amount of 630,000 EUR and contributed with its own equity 130,000 EUR. Whole investment was carried

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out during October-November 2020 and it is important to be mentioned that this green house did not interrupt their work during the whole pandemic period. The greenhouse equipment was imported from the Netherlands (manufacturers Van Der Hoeven and Dekotech). It is important to mention that the demand for vegetable seedlings is increasing year by year and the market is secure not only in Lushnja area but also in other agriculture areas around. The company increased its production since demand in this area is very high and at the same time they reduced total unit cost of production due to saving in many directions, including energy savings. Company prepared a clear investment plan and following EE measures have been investment: 1) Disinfection EE system; and 2) Irrigation EE system.

Existing disinfection systems have the following parameters: installed power capacity = 40 kW (10 systems with 4 kW each); capacity= 4.2 m³/hour; daily average working hours = 24 hours; working days in month = 30 days; working months = 12; efficiency = 80%; and load factor = 63%; CO₂ emission factor=0.002 kg/kWh.
Actual energy consumption = 272,160 kWh/year.

New disinfection EE systems have the following parameters: installed power capacity = 37 kW (10 systems with 3.7 kW each); capacity= 5.075 m³/hour; daily average working hours = 24 hours; working days in month = 30 days; working months = 12; Efficiency = 90%; and load factor = 63%; CO₂ emission factor=0.002 kg/kWh.
Energy savings reached 86,966 [kWh/year] equal to 32% of the actual consumption and IRR=32%.

Existing irrigation systems have the following parameters: installed power capacity = 20.8 kW (there exist 16 systems); daily average working hours = 24 hours; working days in month = 30 days; working months = 12; efficiency = 80%; and load factor equal to 25%; CO₂ emission factor=0.002 kg/kWh.
Actual energy consumption = 544,320 [kWh/year]

Irrigation EE systems and the basic standard construction consists of: induction motor to pull the steel cable for carriage of the planet; trolleys, steel cable and end-switches included; double rail system to move the trolleys in special; galvanized profiles 6 m long, connectors included. New irrigation EE systems has the following parameters: installed power capacity = 18.4 kW (16 systems); The system operates 24/7 and all year round; efficiency = 90%; and load factor equal to 25%.CO₂ emission factor=0.002 kg/kWh.
Energy savings reached 12,000 [kWh/year] equal to 21.37% of the actual consumption and financial indicator IRR=24%.

4.4 Energy Efficiency investment in milk processing Anita company

Company: Anita sh.p.k. (Milk Factory)

Size of company: Small

Anita sh.p.k. is a milk processing factory producing yoghurt, cheese etc. The company has started operating in 1998, and since then, its products have continually improved in quality and quantity. Up until today the business has never stopped operating. The company has employed 16 workers. The enterprise usually works in one shift 10 hours per day.

Thermal insulation of the envelope of the cooling chamber was almost 30 years old (from ex-socialist times) and totally depreciated. Ten years ago, the owner changed the cooling system with an Italian brand which might be considered as average efficiency (with Coefficient of Performance (COP) = 2.8) and this time he considered to rehabilitate the envelope of the cooling chamber from the energy efficiency point of view. Company carried out these investments in June-August 2020.

The enterprise has also bought a new machine with the same capacity as before for yogurt production but with increased quality and much higher efficiency than the previous one. The previous quality of yoghurt produced was less accepted by the market compared with the yoghurt which is produced nowadays.

Case Study

Budget: 22,143 EUR

Calculation of energy consumption was based on technical data of new and old technologies. The company has

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purchased and installed two important EE measures: buying a new efficient machine and thermal insulation of the existing cooling chamber.

These EE investments have been implemented by the support of a BKT loan equal to 43,572 EUR.

Measure No. 1: New efficient machine

New machine has the following parameters: power installed capacity = 8 kW; thermal installed capacity = 10 kW; production capacity = 2000 kg/day (monthly average production 43,846 kg/month); daily average working hours calculated based on the old production - 10; working days per month - 22; electrical efficiency = 92%; thermal efficiency = 85%.

Existing machine has the following parameters: power installed capacity = 9.5 kW; thermal installed capacity = 12 kW; production capacity = 2000 kg/day (monthly average production 43,846 kg/month); daily average working hours calculated based on the old production - 10; working days per month - 22; electrical efficiency = 80%; thermal efficiency = 75%.

Measure No. 2: Thermal insulation of cooling chamber

Thermal insulated cooling chamber has the following parameters: power installed capacity = 6 kW; cooling chamber capacity = 50 ton; daily average working hours calculated based on the old production - 24; working days per month - 25; electrical efficiency = 90%.

existing un-insulated cooling chamber has the following parameters: power installed capacity = 6 kW; cooling chamber capacity = 50 ton; daily average working hours calculated based on the old production - 24; working days per month - 25;

All EE measures introduced bring the following results:

Final energy consumption calculated after implementation of the project is 60,232 kWh/year and IRR is 24%.

4.5 Energy Efficiency Investment in Milk Processing Erzeni Enterprise

Company: Erzeni sh.p.k. (Milk Factory)

Size of company: Medium

Erzeni Milk processing plant is a manufacturer of milk and its products in Samatice-Berat, Albania. It started production in 1995. Its main products are milk, yogurt, cheese, butter, and ayran. Production capacity is 2,000 liters of milk per hour.

Case Study

Budget: 13,458 EUR

A preliminary evaluation of the solar energy resources is based on the annual average solar radiation of Berat area, which is one of the regions with the highest solar radiation. Average total yearly solar radiation will vary from a minimum of 1,185 kWh/m² in North East Albania (Kukes) to a maximum of 1,690 kWh/m² in the South West (Saranda) and should be mentioned that Berat is among the highest solar radiation regions of Albania according to the calculations on the solar radiation carried out by the former Institute of Hydrometeorology.

Solar Hot Water System:

Current situation

Hot water was prepared using the existing diesel boilers and every day is used about 1,000 (minimum values during month of January where the milk production/processing is very low)-14,000 liters (maximum values during month of May where the milk production/processing is very high). The best measure to be introduced is the preparation of the hot water through solar hot water systems, since the requirement for hot water temperature is about 50°C.

Some of main parameters which have direct influence on the feasibility are as followings:

1. Investment of SWH system as turn-key contract.
2. Efficiency of SWH systems.
3. Solar radiation at Berat area.
4. Amount of energy demand for hot water at the milk factory.

On average, the supply breakdown cost (all items of budget for installing the SWH system as turn-key contract)

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shows the following values (Table 6.3) for Erzeni sh.p.k.:

Table 6.3: Breakdown cost for all installing items of SWH system as turn-key contract

Investment items	EUR
System costs	6,853
Costs for installing	1,073
Gross profit including taxes	2,082
Total Cost for the owner of Milk Factory	10,008

Source: Consultant's own calculations for this case study

Energy efficiency calculation for introduction of SHWS shows the following results: total investment needed for this EE measure is 10,008 EUR; energy savings are 24,064 kWh/year, payback period is 4.85 years and IRR is 28.58%.

LED technology:

Current situation

Installed power capacity of lighting was about 5.5 kW. Different types of old fluorescent bulbs have been present in the factory and have low efficiency.

Proposed actions

It is foreseen that all inefficient luminaries/bulbs of the entire facility are to be replaced with efficient LED ones. Analysis of increased lighting energy efficiency should not diminish the requirements of adequate lighting of the workplaces; on the contrary, it will help to increase quality of lighting and reduce electricity consumption at the same time.

Energy efficiency calculation for introduction of LED technology shows the following results: total investment needed for this EE measure is 3,450 EUR; energy savings are 6,312 kWh/year, payback period is 4.08 years and IRR is 37.7%.

4.6 PV Autoproducer Investment in Kamela Enterprises

Company: Kamela sh.p.k.

Size of company: Micro

The Albanian Government is already implementing the FiT policy for PVPPs with installed capacity lower than 2 MW with an actual value of 10 EUR cent/kWh. The Albanian territory is separated in 3 climatic areas according to the Albanian Energy Building Code and solar radiation regime and sun hours throughout the year are shown in Figure 6-1.

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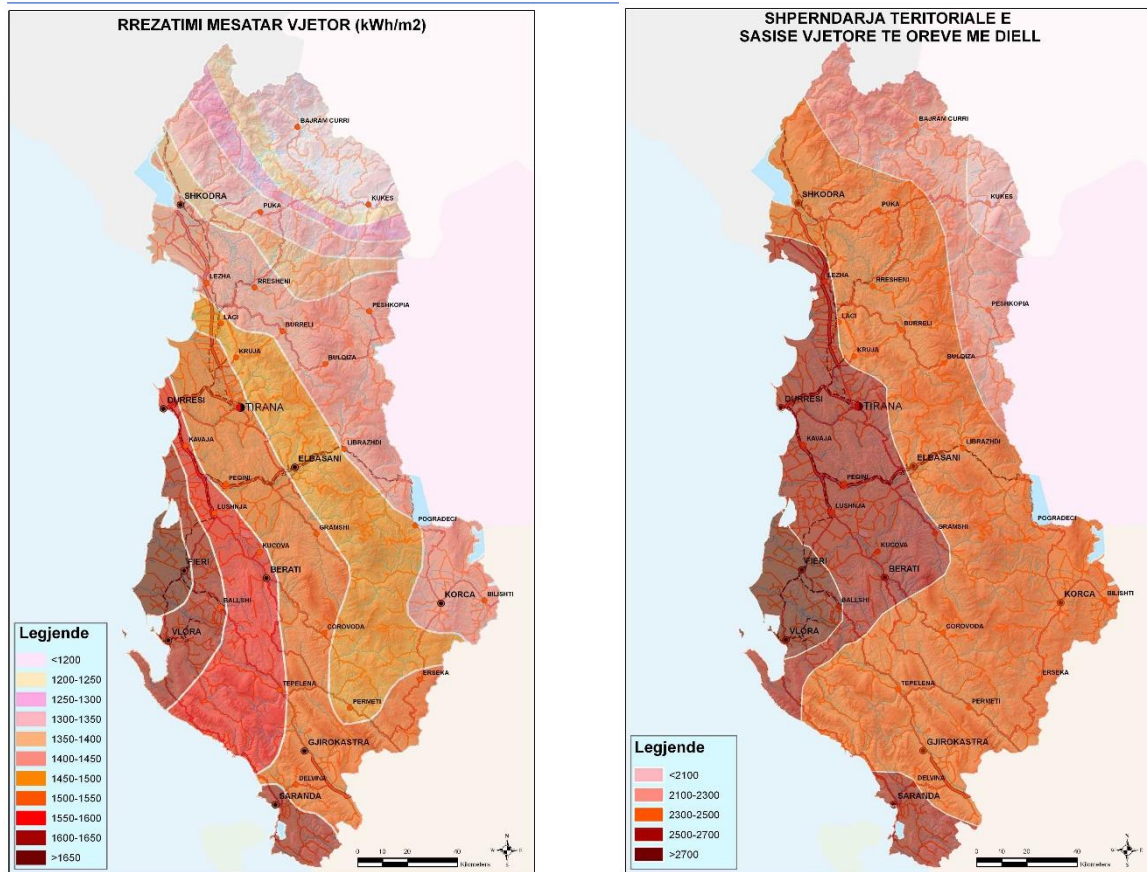


Figure 6-1: Solar Radiation (kWh/m² year) and Sunshine Hours (hours/year) in Albania

Source: Solar Map of Albania (National Agency of the Natural Resources)

Installation of SPVPPs was 25 MW for the year 2020, and maximum capacity to be constructed until 2030 should be 460 MW. According to the NREAP there are not any breakdown obligations between SPVPPs as Independent Power Producers (IPPs) and SPVPPs as autoproducers. International experience from other countries with mature SPVPPs markets shows that share of SPVPPs as IPPs is 70-85% of installed capacity, meanwhile share of PVPPs-Autoproducers in the best case is 15-30%. SPVPPs-Autoproducers, known more as rooftop PV Systems, will be installed at the households (especially individual houses where the medium- and high-income families reside), private service (hotels, resorts, restaurants, private schools, private hospitals), public buildings (schools, dormitories, offices, etc.), and small industries.

Case study

Budget: 161,929 EUR

Surface terrace area of the main buildings is 860 square meters and including other buildings the total roof areas is 1,200 m². The maximum possible number of panels that could be placed on the main surface area was around 515 units. The surface of one module is 1.67 m². 500 units (which will guarantee 150 kW with a unit panel (1.67 m²) equal to 300 W) occupied around 835 square meters (if their positioning would be extended). However, in order to make a consideration that is as close as possible to reality, the panels have been positioned in an inclined position, so they will occupy less space on the horizontal plane, but will also need more space between them in order to avoid mutual shading.

Based on the request made by the fruit processing factory (Kamila Fruit sh.p.k.) for a bid regarding the construction of the photovoltaic plant 150 kW, D&S NEW TECHNOLOGIES sh.p.k. considered the request and made a bid regarding the installation of this PV (Figure 6-2).

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Figure 6-2: General layout of the panels on the roof surfaces

Source: Picture is from Google and PV panels are schematically positioned on the roof of both buildings for this case study

All materials used in the photovoltaic system are originally from Europe (Austria and Germany) and with high quality. Project analysis has been prepared by the consultant in January 2020 and implementation was carried out in September-November 2020, highlighting the fact that plans were not abandoned because of the crisis.

The total average annual energy demand is 300,131 kWh/year. The total annual output of electricity from the PV System that will be located on the roof of the fruit processing factory (Kamila Fruit sh.p.k.) is 231,616 kWh/year and covers around 77.17% of the total yearly electricity demand for this Factory. Figure 6-3 presents monthly demand and supply (from the PV) in the fruit processing factory (kWh/month). Figure 6-4 presents coverage of demand and supply (from the PV) in the fruit processing factory (%/month). Figure 6-5 presents demand and supply (from the PV) in the fruit processing factory (kWh/year). Figure 6-6 presents demand and supply (from the PV) in the fruit processing factory (%/year).

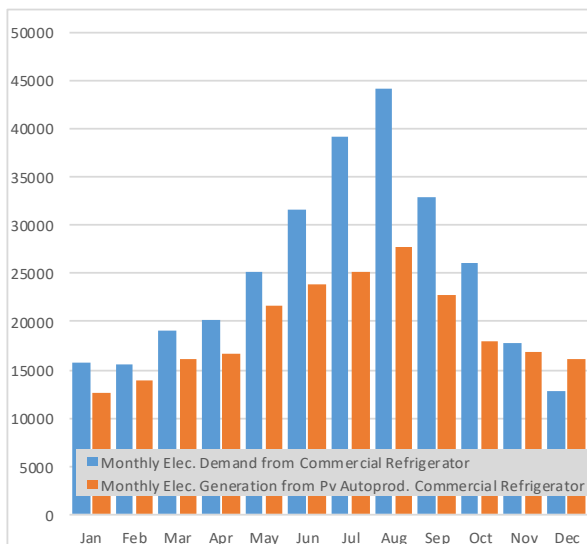


Figure 6-3: Monthly demand and supply (from the PV) in the fruit processing factory (kWh/month)

Source: Consultant's own calculations for this case study

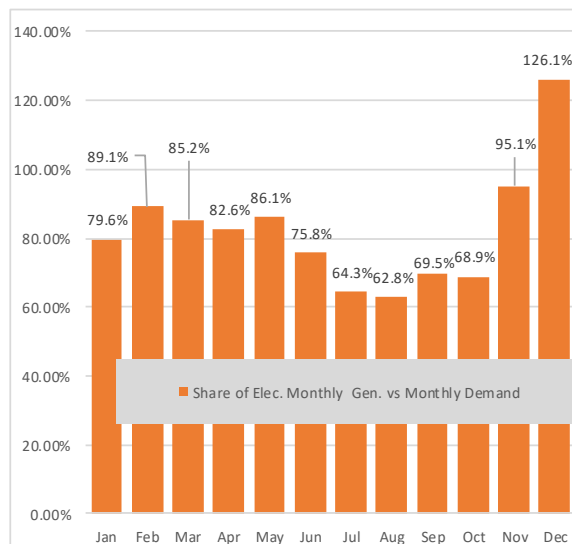


Figure 6-4: Coverage of demand and supply (from the PV) in the fruit processing factory (%/month)

Source: Consultant's own calculations for this case study

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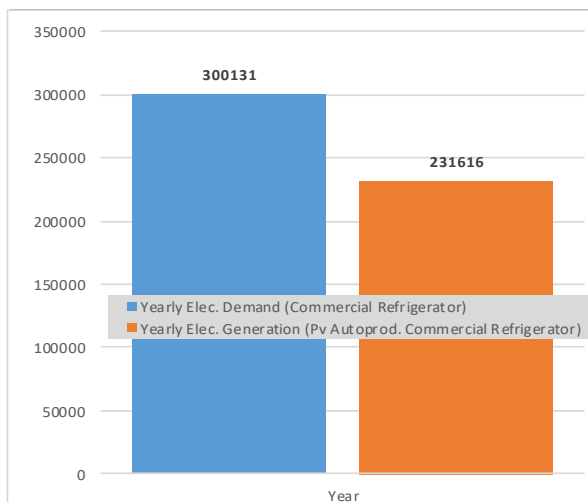


Figure 6-5: Demand and supply (from the PV) in the fruit processing factory (kWh/year)

Source: Consultant's own calculations for this case study

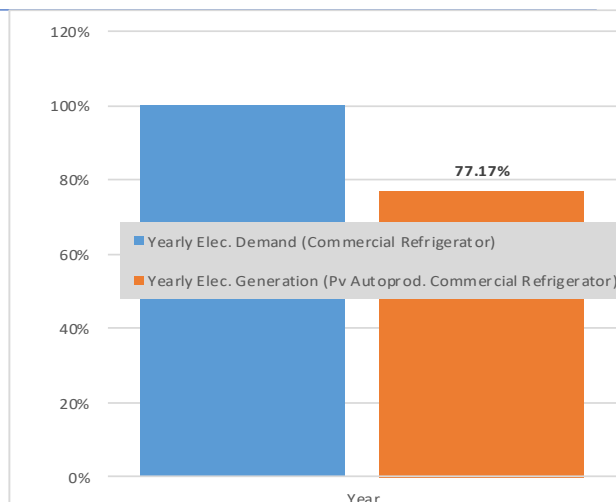


Figure 6-6: Demand and supply (from the PV) in the fruit processing factory (%/year)

Source: Consultant's own calculations for this case study

Detailed calculations for introduction of PV Autoproducer shows the following results: total investment needed is 161,929 EUR; RE contribution was 24,064 kWh/year; payback period is 5.86 years; and IRR is 17.06%.

4.7 PV Autoproducer Investment in AJKA Enterprises

Company: Ajka sh.p.k. (Milk Factory)

Size of company: Small

Background

This milk processing company is involved in dairy processing and production, operating as a family business since 1999. The main products are: UHT milk in tetra pack 1-liter box, yoghurt in plastic cups (400 g), pasteurized milk 1.5 liters, fresh butter, and white cheese.

Case study

Budget: 234,390 EUR

This case study presents a preliminary analysis of a 200 kW PV Autoproducer System at the Milk Factory in connection to the company's internal electricity network as well as the distribution network of the area, where it operates. The facility, which is a milk processing factory, has been designed and constructed according to the best European standards. The plant's shareholders decided to modernize the facility through: investing in the production line through the installation of a unit for filling and stamping of yoghurt bottles and the installation of a PV Auto production system. The installation of PV Autoproducer System was carried out during the period Jan-March 2021.

Detailed calculations for introduction of PV Autoproducer shows the following results: total investment needed for this is 234,390 EUR; RE contribution was 33,640 kWh/year, payback period is 6.29 years and IRR is 15.90%.

4.8 Installing EE Olive Boiler using olive pomace biomass on Subashi SH sh.p.k. Olive Oil Factory

Company: Subashi SH sh.p.k.

Size of company: Small

Background

Subashi Sh sh.p.k. is using Piralisi line for olive oil production. In the industrial processing, the olives are selected according to variety and, in many cases, to their origin: olives picked from the plant and olives collected from the ground. A sample is taken out to determine the weight and the information is collected together with all the customer's data; then the fruits are stored together waiting for the beginning of processing.

The extraction process runs without interruption and the machines are stopped only for cleaning and

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maintenance operations. This type of extraction process optimizes the kneading volume to the maximum and reduces dead times by continuously feeding the olive pomace boiler and consequently increasing the performance of the plant. With this system the adjustment of processing times and temperatures is a very simple operation, thanks to the homogeneity of the product and the continuity of the process. The kneading times are programmed during the design stage by setting the kneading section in relation to the hourly flow-rate of the olive pomace boiler, and setting standard temperatures in order to reach the right temperature during the kneading process.

Case Study

Budget: 9,000 EUR

Based on preliminary audit, energy consumed in the factory is used for the following purposes: washing olive fruits with warm water and thermal energy needed was provided through one EE boiler burning the dried olive seed biomass of the factory. Figure 6-7 below shows the operation of an olive oil mill that uses dried olive oil byproducts (olive pomace pellets) to generate heat for its own needs and also reduce waste.

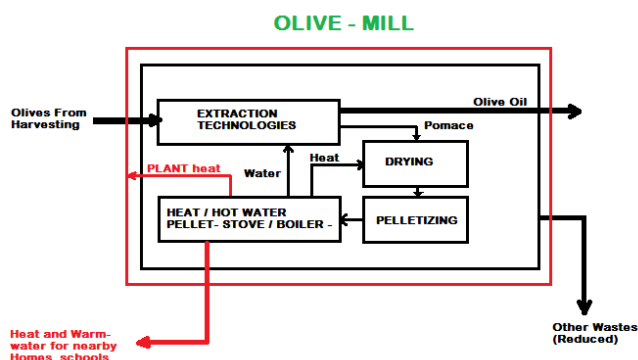


Figure 6-7: Cycle inside a complex Olive Oil Extraction Mill

Source: Consultant's own calculations for this case study

The energy demand of the factory is usually divided into six parts described as basic energy uses with widely differing characteristics: space heating, space cooling, water heating, cooking (which does not actually exist and therefore has not been considered in future calculations), lighting and electrical appliances. Based on the thermodynamic model of energy demand calculation, a conclusion was reached that space heating energy demand is 24,218 kWh/year for the baseline energy scenario (which means fulfilling comfort but not introducing any EE/RE measure).

Subashi Sh sh.p.k. invested in an olive pomace EE boiler with a capacity of 2 tons/hour, which was installed successfully in September 2020 before olive oil production started in October 2020.

Average CO₂ equivalent emission reduction calculated by introduction of EE boiler is 18.78 ton/year. Average SO₂ equivalent emission calculated by introduction of EE boiler reduction is 129.6 ton/year. Final conclusion of the above-mentioned analysis is very clear: financial parameters are very positive for all sensitivity cases so it was good for investor and the bank to finance the olive pomace boiler for Olive Oil Production Company Subashi Sh sh.p.k.. Payback period is 5.5 years and Internal Rate of Return (IRR) equals to 28.34%.

4.9 Rehabilitating Gavrani 1 and Gavrani 2 SHPPs

Company: Gavrani Energy sh.p.k.

Size of company: Small

Background

Albania is very rich in hydropower potential and Gavrani 1 and Gavrani 2 SHPPs are two SHPPs built in 2015-2017 and contributing to meet the national RE targets. Gavrani 1 and Gavrani 2 hydropower is built in the torrent of tributary of Stravaj areas. Radicina River is one of the important branches of the upper reaches of Shkumbin River. Recently, the main debates related to the promotion of renewable energy, have been financially supported schemes and the improvement of conditions for the access to the network. Definitely, these are the main issues, which will continue to be the main topics for policymakers in the future. However, recently, "the importance of identification and management of nonfinancial and nontechnical renewable energy barriers" is in the focus of analysts and the Albanian Government. Multiyear average electricity generation for

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the period 2017-2019 was 9.145 GWh/year.

Case Study

Budget: 390,000 EUR

Technical and Financial Due Diligence for Gavrani Energy sh.p.k. was done in detail for the both plants for all Equipment & Machinery (E&M) and the following parameters for three groups of turbine-generators are presented at Table 4.4:

Table 4.4: Parameters of Gavrani 1 and Gavrani 2 SHPPs

Main parameters	Unit	Gavrani 1		Gavrani 2
		Unit 1	Unit 2	Unit 1
Turbines				
Year of production		1970	2018	2017
Year put into operation		Used	2018	2016
Turbine Type		H-Pelton 1 nozzle	H-Pelton 2 nozzle	V-Pelton 6 nozzles
Turbine rated power	kW	400	1350	1350
Rated speed	rpm	600	600	600
Gross/Net head	m	112.34/102.34	173.08/166.33	120.43/122.43
Calculated flow	m ³ /sec	0.4	0.68	1.2
Efficiency	%	91%	91%	91%
Generator				
Manufacturer			Hitzinger	TESU
Max output power	kVA	450	1350	1200 kW
Voltage	V	400	400	400
Nominal speed	rpm	600	600	600
Transformers and Switchgears				
Manufacturer		ABB/Sarel	ABB/Sarel	ABB/Sarel
Rated voltage		0.4/35 kV	0.4/35 kV	0.4/35 kV
Service voltage		24 VDC	24 VDC	24 VDC
Power transformer		ABB	ABB	ABB
Rated power	kVA	450	1350	1350

Source: Consultant's own calculations for this case study

During the period of June-September 2020 investor carried out rehabilitations of the following elements based on the following recommendations of the above mentioned Technical and Financial Due Diligence:

- 1) full rehabilitation of all gates for three water intakes, for two desanders, for two forebay's (transforming them from mechanical operation to fully automatic electrified ones);
- 2) full rehabilitation from construction point of view for three desanders; and
- 3) rehabilitation of three runners of turbines.

These rehabilitations, have been carried out during the June-July 2020 and they have increased the factor availability for each plant from 75% to 90% and this has increase also electricity generation by 18% for the first year of operation (August 2020-June 2021) after above mentioned rehabilitation have been finalised has been increased to 10.8 GWh/year. This increase was mainly due to the increase of availability factor of each plant because of above-mentioned investments with IRR of 16.5% and payback period of 6.4 years.

5. Potential market for EE/RE for MSMEs delivering energy-efficient products and providing renewable energy equipment in Albania

5.1 Energy efficiency targets for Albania

Figures 7-1 and 7-2 show the consumption of energy resources in all economic sectors during the period 2005–2018. Analysis shows clearly that transport has the highest consumption followed by the residential,

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industry, service and agriculture sector. Potential of introducing EE/RES is in all above mentioned sectors.

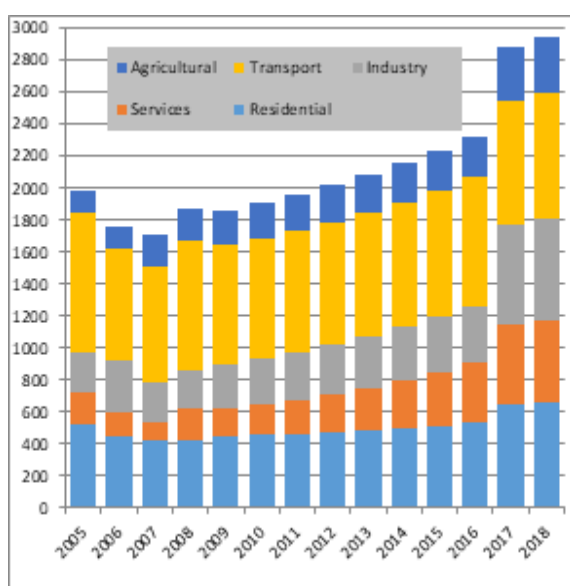


Figure 7-1: Energy consumption by sector (ktoe)

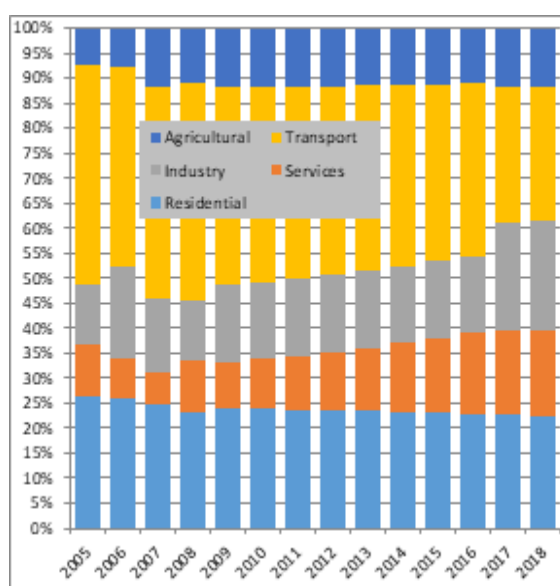


Figure 7-2: Share of each sector in energy consumption (%)

Source: National Energy Efficiency Action Plan, AKBN-National Agency of the Natural Resources

Albania's 1st, 2nd, and 3rd National Energy Efficiency Action Plans (NEEAPs) contain indicative targets for energy savings in the short-term (2010–2012), medium-term (2013–2015) and long-term (2016–2020) perspectives. Meanwhile, targets for the year 2030 for EE are approved to be 15% under the Strategy of Energy (approved by the Albanian Council of Ministers on July 2018). Public and private building stocks have the largest share of final energy consumption. Each sector's EE targets are provided in Table 7-1 below, where the allocations use energy consumption percentages and are based on impact estimates of proposed EE measures.

Table 7-1: Energy savings targets by sector

Sector	%
Residential	22
Services	19
Industry	25
Transport	31
Agriculture	3
Total energy savings potential	100%

Source: 1st, 2nd, 3rd Albanian National Energy Efficiency Action Plan, METE/ AKBN

5.2 Renewable energy targets for Albania

In Albania, up to 95% of electricity is generated using large and medium-sized hydropower plants. Meanwhile, about 6–10% of the country's total primary energy sources (including imports) come from biomass, especially fuel wood for fire. Nonetheless, the use of other renewables is important because it improves energy-supply security and energy-sector sustainability.

Gross final energy consumption for the year 2020 was 2,450 ktoe and Gross Final Energy Consumption forecasted it for the year 2030 to be 3,650 ktoe. Both are the real values against the Albanian energy balance for the year 2009 and energy forecast for 2030, which are based on various reports including the Updated National Strategy of Energy (2018); the document for the Albanian Integration into EU (Energy Chapter) approved by Decision of the Council of Ministers on March 2015); and the 1st, 2nd, and 3rd NEEAP (approved by the Council of Ministers Decisions). Based on the above-mentioned analysis, the maximum final RE target for Albania for 2030 is 42.5% of total final energy demand forecasted for the same year.

5.3 Main steps of calculating a potential market for EE/RE for MSMEs delivering EE/RE products

The main steps of the methodology in performing the market analysis related to the EE/RE technologies have been: 1) contacting main EE/RE MSMEs; 2) gathering information; 3) detailed analysis of collected information based on the above mentioned questionnaire; 4) detailed analysis of collected information based on NEEAP/NREAP for the respective investment required for the period 2020-2030; 5) evaluation of the EE/RE investment potential for main technologies, which might be produced by the Albanian MSMEs; and 6) summarizing the results and presenting them under this chapter.

Step 1 ⇒ Contacting main EE/RE MSMEs

The first steps undertaken in the inception phase was preparing the list and contacting main EE/RE MSMEs.

Step 2 ⇒ Gathering information

Information was gathered from a wide range of sources, including existing reports on energy efficiency and renewable energy sources for Albania; websites with information on specific country financing initiatives; programmes and policies as well as legal frameworks in Albania. Consultant contacted 50 manufacturing enterprises which are producing EE/RES components and 21 of them answered and expressed their readiness to be interviewed.

Step 3 ⇒ Detailed analysis of information collected from the questionnaire

Relevant data was next synthesised and analysed to present a perspective on the current situation of the individual enterprises surveyed. Recommendations were then formulated based on this analysis.

Step 4 ⇒ Detailed analysis of information collected from EE/RES action plans for Albania, for the respective investments required for the period 2020–2030

In this step, a detailed analysis of information collected from EE/RES action plans for Albania was carried out with the main goal to collect figures related to the respective investments required for meeting EE/RES targets for the period 2020–2030.

Step 5 ⇒ Evaluation of the EE/RE investment potential for main technologies, which might be produced by the Albanian MSMEs

Consultant, under step 5 has calculated based on the top down approach the EE/RE investment potential for main technologies as a whole and at the same time has calculated the investment which might be made by the Albanian MSMEs.

Step 6 ⇒ Summarizing the results and presenting them under this chapter

Consultant, under step 6, has provided recommendations on how to support EE/RES MSME companies and guides the Albanian Investment Development Agency (AIDA), EE Agency and Ministry of Infrastructure and Energy (MIE) as the primary beneficiary to better use the results of the market study for Albanian relation to EE/RE technologies..

5.4 Technologies for the EE market

The market for energy efficiency technologies is evident in all energy consumption sectors: household, industry, transport, agriculture, public and private services. This section focuses on the EE technologies market for the residential, service, industry, agriculture and transport sectors of Albania, since Albanian industrial manufacturing enterprises have the most potential to produce for this sector.

The energy-saving potential for each of the following EE measures in relation to heating and cooling, cooking, lighting and electrical appliances is calculated based on the standard engineering bottom-up methodology for absolute values of EE savings. Below are the most important products and measures to introduce for meeting EE targets, some of which might be produced by domestic industrial manufacturing enterprises:

- Energy efficient windows
- Cooling and heating pump systems
- Heat-exchanger stations and building installations
- Balanced mechanical ventilation with heat recovery

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- Increased use of pellets/wood fuel in order to reduce electricity demand, and enforcement of electricity bill payment
- Promotion of central and district heating schemes to reduce electrical demand for space heating and hot water, especially on new blocks and multi-storey dwellings
- Promotion of energy efficient stoves that use biomass, etc.

5.5 Technologies for the RE market

MSME manufacturing enterprises already are producing different parts for all of RE technologies, from simple metallic structures and gates to very sophisticated elements. Consultant has carried out the analysis of the Albanian MSMEs manufacturing enterprises related to following RE technologies:

1. SHPPs
2. SPVPPs
3. WPPs
4. Biomass PPs
5. Solar Hot Water Systems
6. Biogas Systems

Table 5-2 presents the total budget of a 4.2 MW small hydropower plant, which is in the process of construction in Albania. The last two rows calculate all the systems and parts of the SHPP which could be produced by Albanian manufacturing companies. Elements like gates, pipes, hydro-metallic systems, towers, concrete, windows, doors, roofs, etc. could be produced by the Albanian MSMEs. The total budget of parts and systems that could be produced locally is 2.3 million EUR, or 34.86% of the total budget. This translates to 566 EUR materials, parts and systems (expressed in money terms) for each kilowatt installed in SHPPs that could be produced by the Albanian MSMEs.

Table 5-2: Total budget of a 4.2 MW SHPP

Item/EUR	Sub-item	Total	2013	2014	2015
Administrative Expenses		54,000		40,000	14,000
First Intake	Total	882,204		0	0
	Construction	17,763		3,553	14,210
	Hydromechanics	4,441		0	4,441
	Penstock/pipes	860,000		0	860,000
Second Intake	Total	909,304		0	0
	Construction	43,163		6,474	43,163
	Hydromechanics	10,791		0	10,791
	Penstock/pipes	855,250		0	855,350
First Desander	Total	94,621		0	0
	Construction	70,966		10,645	60,321
	Hydromechanics	23,342		0	23,342
Second Desander	Total	93,368		0	0
	Construction	70,026		17,456	59,522
	Hydromechanics	23,342		0	23,342
Bi-furcation	Total	417,008		0	0
	Hydromechanics	349,123		17,456	331,667
	Penstock/pipes	67,885		0	67,885
Power house		162,000		24,300	137,700
Discharge channel		32,400		4,860	27,540
Hydromechanics		8,100		0	8,100
Power connection line		480,000		0	480,000
Internal roads		237,594		237,594	0
Environmental mitigation costs		25,000		12,500	12,500
Purchase of Land		40,000		40,000	0
Insurance		9,006		0	9,006
Subtotal E&M		1,550,520		310,104	1,240,416
Total Investment		4,987,025		710,990	4,283,609
Contingency (10%)		498,703		0	499,513
Project Design & Engineering		290,000	250,000	0	40,000
VAT (16%)		924,116		154,878	771,700
Total Cost of Investment		6,699,844		872,868	5,594,821

Source: Consultant's own calculations for this case study

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

In order to meet its RE targets, Albania's NREAP requires that only SHPPs with a 270 MW capacity should be built. If EE/RE MSMEs do not cover this market, the demand for parts will be filled by other companies in the region, leaving Albania with very little economic benefit from this opportunity. In light of such developments, this market analysis can be of significant value for assisting EE/RE MSMEs to clarify or adjust their business directions.

5.6 Albania's manufacturing enterprises market and capacities to produce EE/RE technologies

An analysis of economic development between 2010 and 2020 shows a small increase in the industry sector's contribution to the Albanian economy. In other words, the contribution of the general industrial production in absolute values of GDP is slightly increased on 2020 compared to 2010. The statistics from 2010–2020 show an increase in heavy industry production (ore minerals over 20 times, non-ferrous metallurgy over 2–3 times, chemicals over 3–4 times); cement and building materials over 5 times; mechanical industry over 5 times; light industry over 10 times; etc. Meanwhile, many industrial and energy products, namely steel and ferrochromium, electricity, bricks, tiles and lime, meat and milk by-products, soft drinks, clothes and leather production, have occupied a large part of the market, playing an important role in the economy with a contribution of approximately 19–20% in real GDP.

To evaluate EE potential in industrial processes, it is first important to have a clear understanding of how energy is consumed and how it could be standardised. Figures 5-4 and 5-5 show two schematic layout diagrams that show energy flows in complex industrial production processes (heat and electricity).

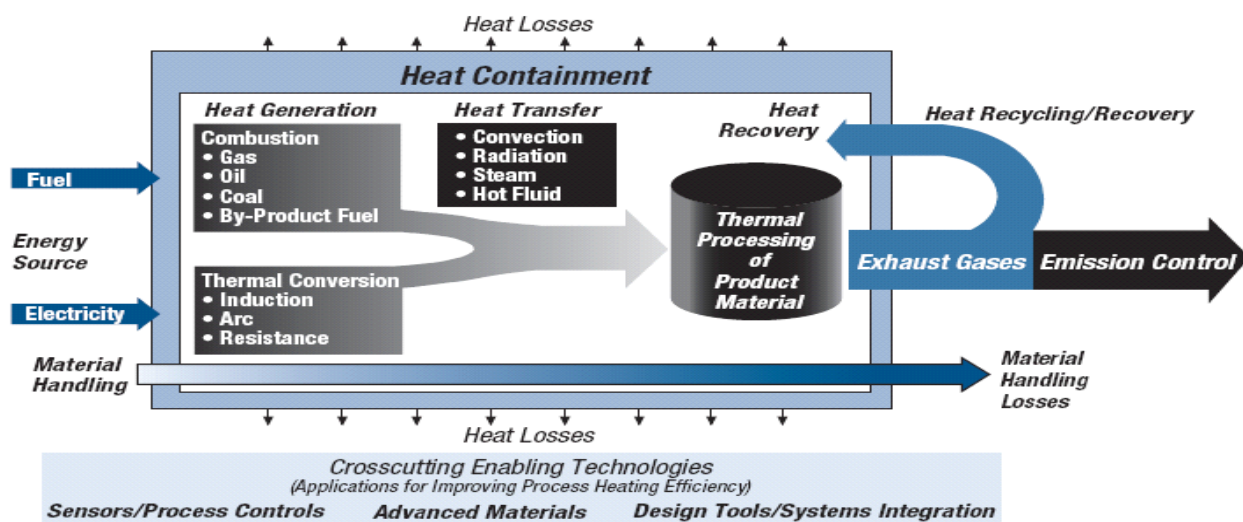


Figure 5-4: Energy consumption by micro-, small and medium enterprises (MSMEs) and corporate businesses (energy commodities for process heating)

Source: Consultant's own analysis

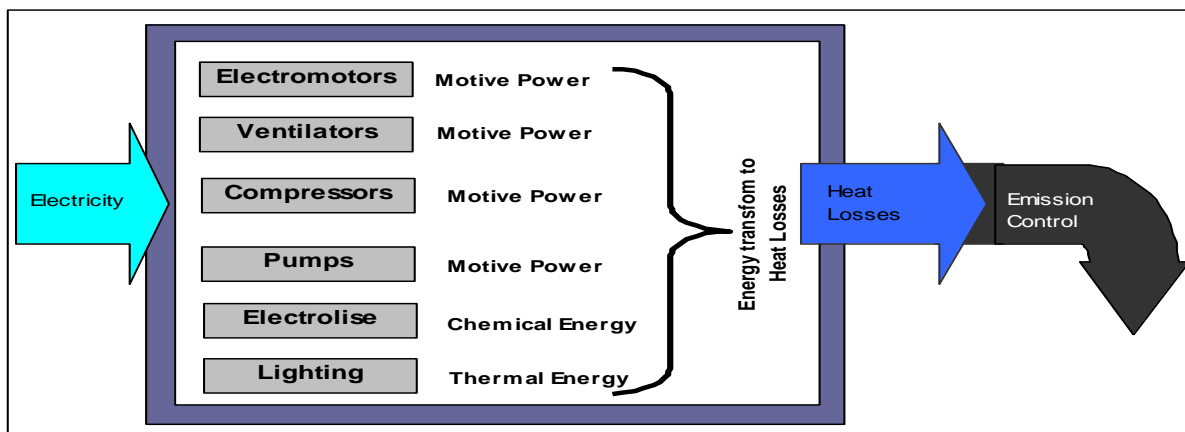


Figure 5-5: Energy consumption by MSMEs and corporate businesses (energy commodities)

for electricity/motive power processes)

Source: Consultant's own analysis

The new Law on Energy Efficiency, which also covers EE in the industrial sector, was approved by the Assembly of the Republic of Albania in November 2015. As well as aligning with the EU acquis on energy labelling, eco-design, energy performance of buildings and energy end-use efficiency, it provides the legal basis for establishing an energy efficiency agency and lays down the procedures for setting up an energy efficiency fund to promote EE and RE projects.

In the medium to long term, the proposed EE investments have to be financially sustainable and generate sufficient savings to ensure loan repayment. Because of market distortions that are unlikely to change in the short term, however (some industries do not pay for electricity or electricity prices are subsidised; prices of wood and coal do not reflect their economic cost) a dynamic approach was used to evaluate EE/RE potential that took these parameters into consideration. It is hoped that the findings and recommendations in this study will help to raise awareness among relevant stakeholders, initiate discussions and lead to agreement on the necessary next steps.

Table 5-3 presents the unit costs for each technology associated with increasing Albania's RE contribution. The calculations are based on the experience of plants already built, international benchmarks, and take into consideration Albania's conditions.

Table 5-3: Unit cost for RE technologies in Albania's conditions

RE Technologies	2020	2022	2024	2026	2028	2030
Small hydropower plants (EUR/kW)	1120	1140	1160	1180	1200	1220
Biogas plants (EUR/kW)	1450	1460	1470	1480	1490	1500
Solar hot water systems (EUR/m ²)	300	290	280	270	260	250
Solar photovoltaic systems (EUR/kW)	2300	2250	2200	2150	2100	2050
Wind power plants (EUR/kW)	1600	1550	1500	1450	1400	1350
Biomass boilers (EUR/20-kW boiler)	2500	2450	2400	2350	2300	2250

Source: Consultant's own analysis

5.6.1 Small hydropower plants

Figure 5-6 shows the actual and the future calculated market potential focus on producing the SHPPs elements and total market expressed in investment terms is 541.68 million EUR based on the interviewing of six RE MSMEs. Meanwhile Figure 5-7 shows that nine companies are willing to produce almost all SHPPs elements and total market will increase from 14.86 million EUR to 150.89 million EUR.

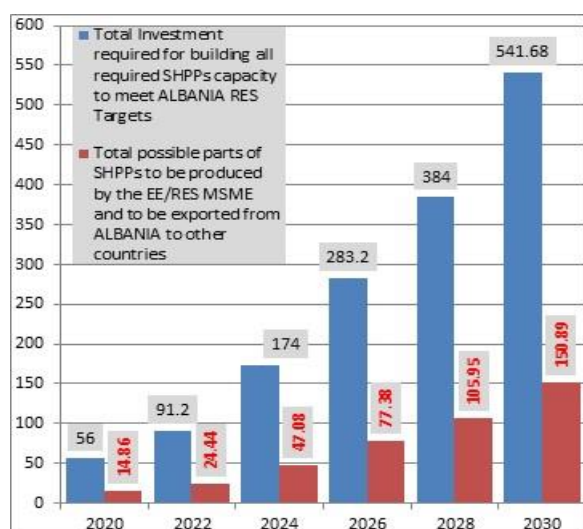


Figure 5-6: SHPPs market and the elements, which could be produced by EE/RES

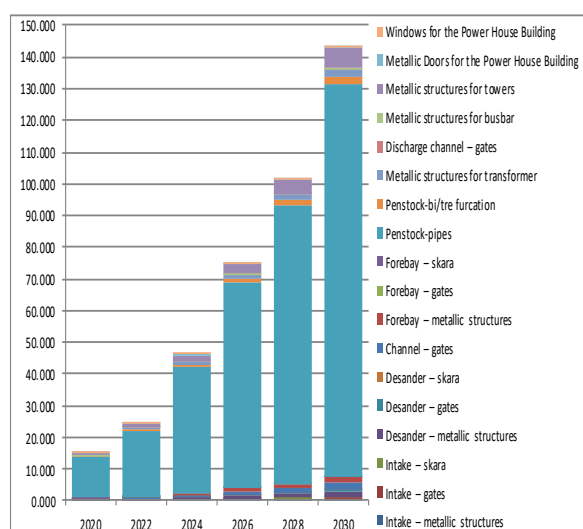


Figure 5-7: SHPPs main elements that EE/RES MSMEs are and will be producing

MSMEs (million EUR)

Source: Consultant's own calculations for this technology

in the future (million EUR)

Source: Consultant's own calculations for this technology

5.6.2 Biogas thermal/power plants

Figure 5-8 shows that the actual and the future calculated market potential focus on producing the BioPPs elements and total market expressed in investment terms is 37.5 million EUR based on the interviewing of three RE MSMEs. Figure 5-9 shows that three companies are willing to produce almost all BioPPs elements and total market will increase from 10 thousand EUR to 2.85 million EUR.

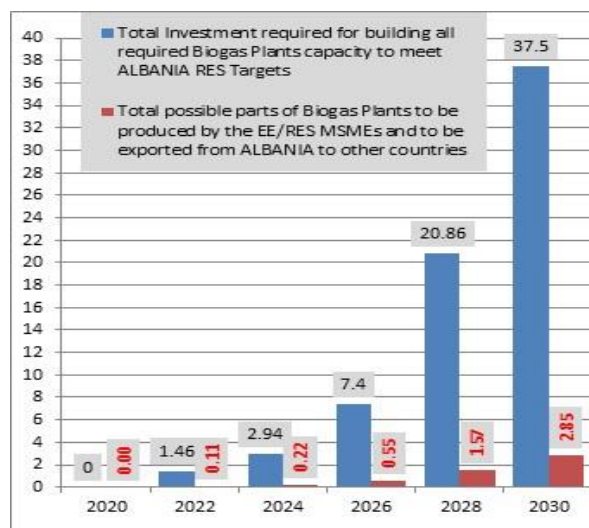


Figure 5-8: Biogas-plant market and the elements, which could be produced by RE MSMEs (million EUR)

Source: Consultant's own calculations for this technology

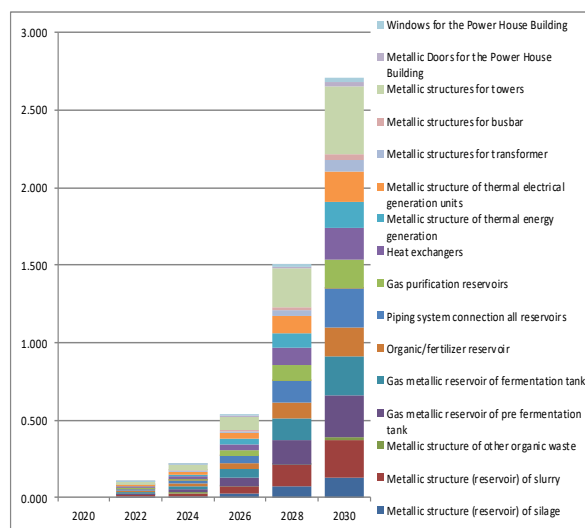


Figure 5-9: Biogas-plant main elements that EE/RES MSMEs are and will be producing in the future (million EUR)

Source: Consultant's own calculations for this technology

5.6.3 Solar hot water systems (SHWS)

While Figure 5-6 shows the actual and the future calculated market potential focus on producing the SHWS elements and total market expressed in investment terms is 25 million EUR based on the interviewing of eight RE MSMEs. Meanwhile Figure 5-7 shows that ten companies are willing to produce almost all SHWS elements and total market will increase from 0.48 million EUR to 4 million EUR.

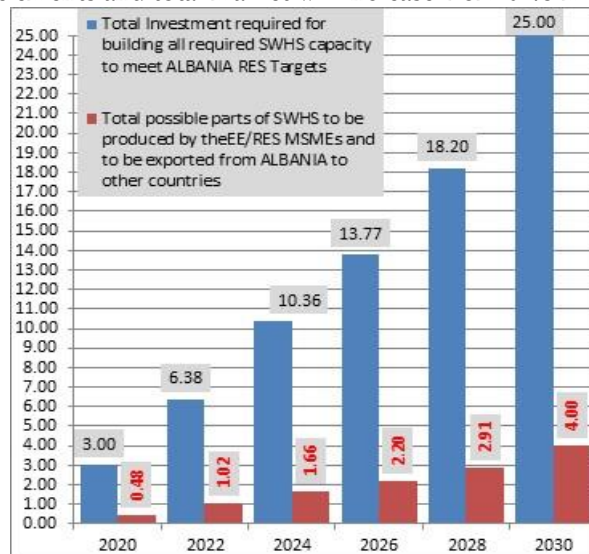


Figure 7-10: SHWS market and the elements, which could be produced by EE/RES MSMEs (million EUR)

Source: Consultant's own calculations for this technology

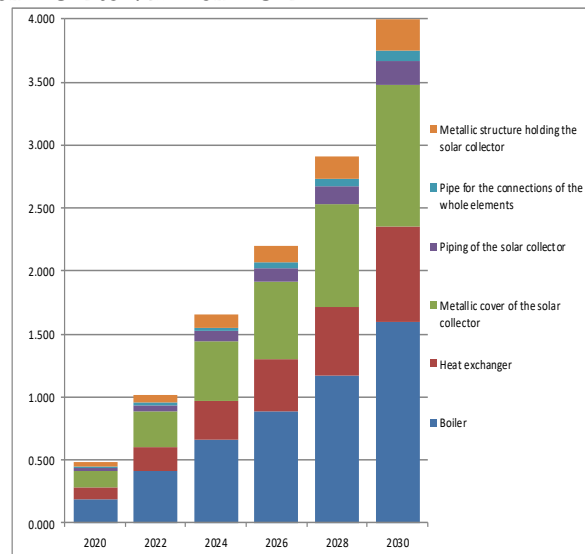


Figure 7-11: SHWS main elements that EE/RES MSMEs are and will be producing in the future (million EUR)

Source: Consultant's own calculations for this technology

5.6.4 Solar photovoltaic systems

Figure 7-12 shows that four EE/RE MSMEs currently produce most of the possible SPVPPs elements. Figure 7-13 reveals that two EE/RE MSMEs intend to produce all the parts and that most of the companies want to expand their product range to accommodate this demand. Figure 5-12 shows that total market expressed in investment terms is 30.75 million EUR. Meanwhile Figure 5-13 shows that ten companies are willing to produce almost all SPVPPs elements and the total market will increase from 1 thousand EUR to 1.51 million EUR.

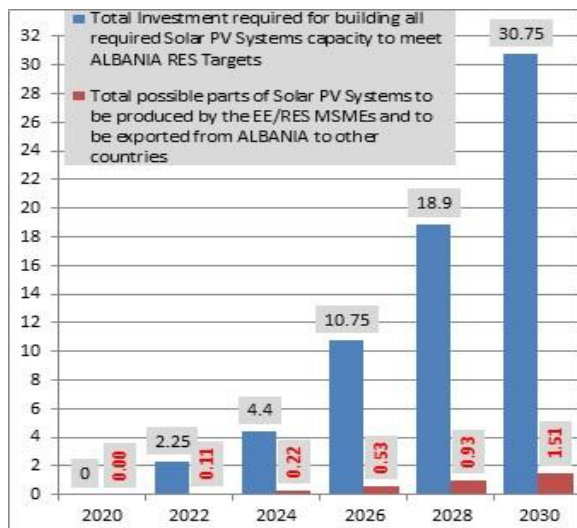


Figure 5-12: SPVS market and the elements, which could be produced by EE/RES MSMEs (million EUR)

Source: Consultant's own calculations for this technology

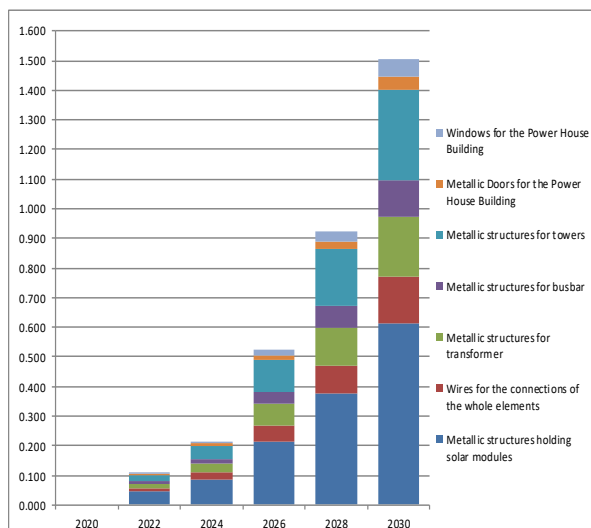


Figure 5-13: SPVS main elements that EE/RES MSMEs are and will be producing in the future (million EUR)

Source: Consultant's own calculations for this technology

5.6.5 Wind power plants

Figure 5-14 shows that RE MSMEs are producing only six out of eleven WPP elements. Figure 5-15 shows an increase in the number of companies willing to produce the same parts and none has prepared plans to expand their product lines for producing more complex elements.

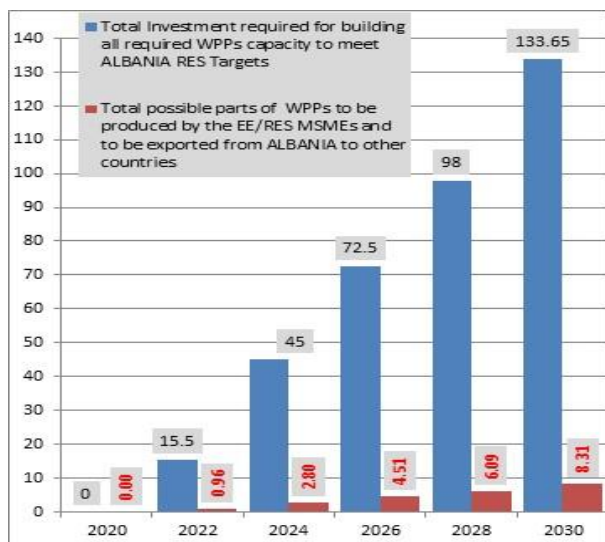


Figure 7-14: WPP market and the elements, which could be produced by EE/RE MSMEs (million EUR)

Source: Consultant's own calculations for this technology

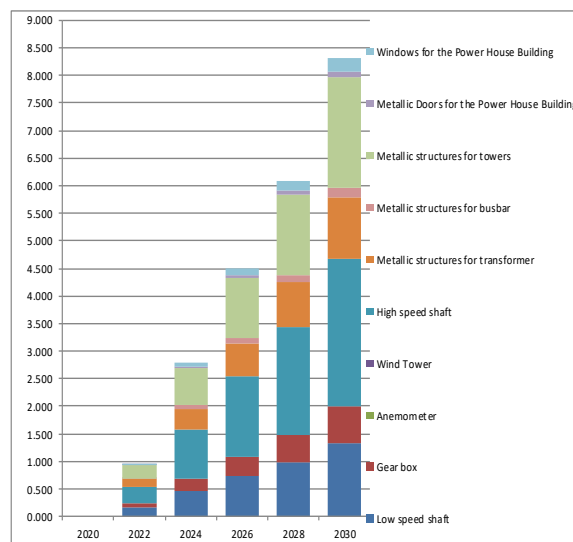


Figure 7-15: WPP main elements that EE/RE MSMEs are and will be producing in the future (million EUR)

Source: Consultant's own calculations for this technology

5.6.6 Biomass boilers

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Three RE MSMEs currently produce different parts for biomass boilers working with woodchips, pellets, briquettes, meanwhile five producing almost the whole EE biomass boiler and market results are presented at Figure 7-16. Figure 7-17 suggests that a few companies who already produce some of the elements want to expand their product line. Potential market for biomass boilers will be increased from 0.85 million EUR to 6.84 million EUR.

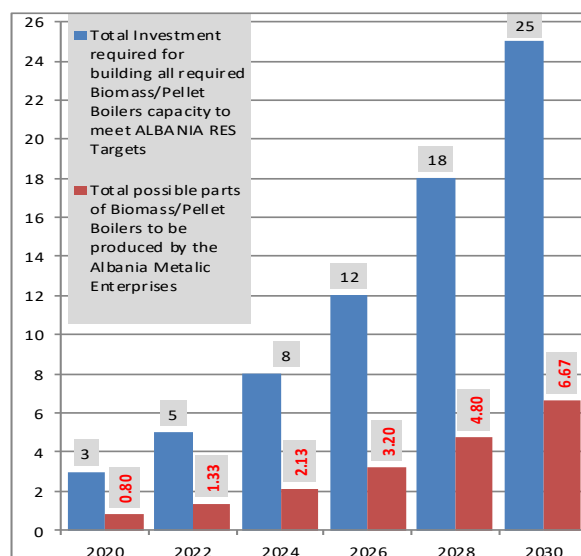


Figure 5-16: Biomass Boilers Elements market and the elements, which could be produced by EE/RE MSMEs for biomass boilers (million EUR)

Source: Consultant's own calculations for this technology

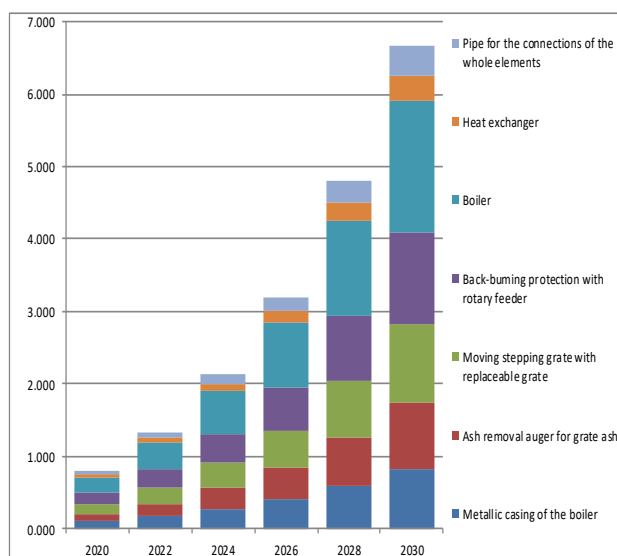


Figure 5-17: Biomass boilers main elements that EE/RE MSMEs are and will be producing in the future (million EUR)

Source: Consultant's own calculations for this technology

5.6.7 All energy efficiency technologies

Specific unit cost of investment for main EE technologies are presented at the Table 7-4.

Table 7-4: Specific investment unit cost of main EE technologies

Parameter	Unit	Value, EUR
Outer walls – energy efficiency case	EUR/m ²	25
Windows – energy efficiency case	EUR/m ²	120
Roof improvement – energy efficiency case	EUR/m ²	35
Thermostatic valve	EUR/piece	30
Solar water heater	EUR/m ²	350
Efficient stove (up to 25 kW capacity)	EUR/unit	700
Air-sourced heat pump (5 kW capacity)	EUR/kW	340

Source: Average market price based on Consultant's research

Consultant carried out approximate calculations related to EE investment required to meet all EE targets for the residential, service, industry, agriculture and transport sector. Figure 5-18 sums up these values to reveal that EE MSMEs currently produce 100 million EUR in EE technologies/materials per year (cumulative value), and they have potential to increase their production to 790 million EUR (cumulative value). Figure 7-19 sums up yearly values to reveal that EE MSMEs currently produce 32 million EUR in EE technologies/materials per year, and that they have potential to increase their production to 222 million EUR.

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

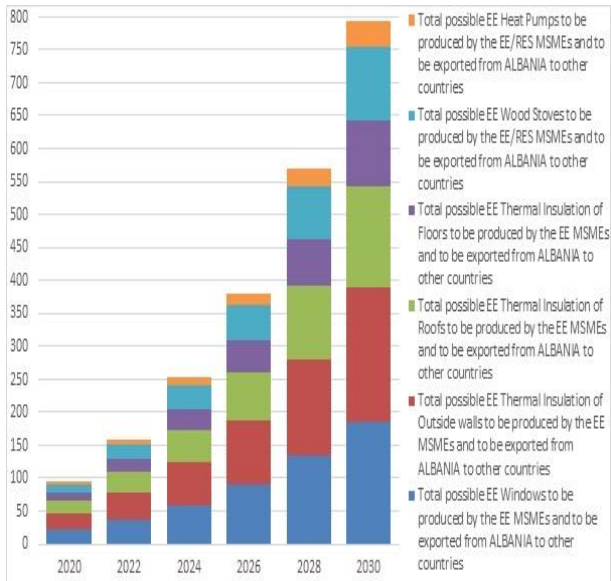


Figure 7-18: Cumulative EE elements market and elements, which could be produced by EE MSMEs (million EUR)

Source: Consultant's own calculations for EE technologies/materials

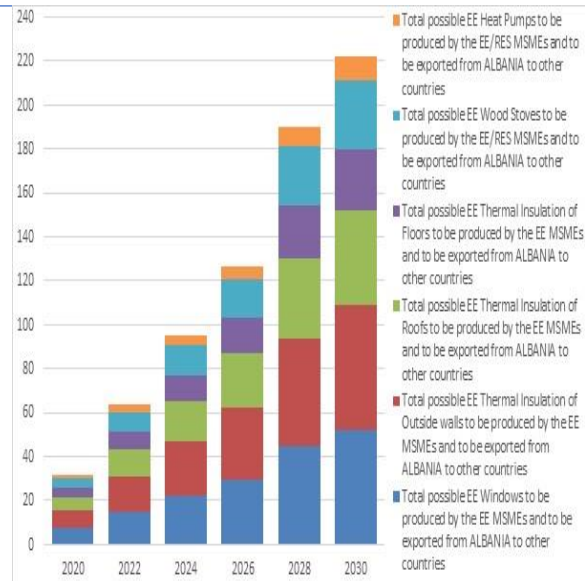


Figure 7-19: Yearly EE main elements that EE MSMEs are and will be producing in the future (million EUR)

Source: Consultant's own calculations for EE technologies/materials

5.6.8 All renewable energy technologies

Figure 5-20 compares the actual and projected investments of each RE technology in EUR. Figure 5-21 presents the cumulative values for the period 2020-2030. Figure 7-21 sums up these values to reveal that RE MSMEs currently produce 15.15 million EUR in RE technologies per year, and that they have potential to increase their production to 172 million EUR.

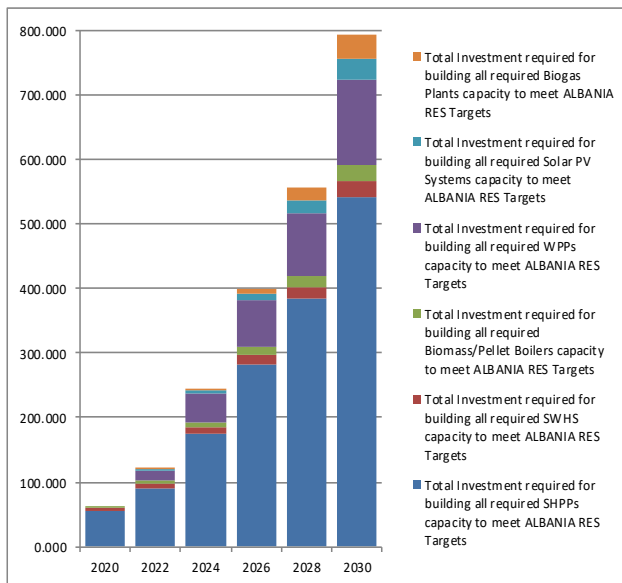


Figure 5-20: Cumulative RE elements market and elements, which could be produced by EE/RE MSMEs for biomass boilers (million EUR)

Source: Consultant's own calculations for RE technologies

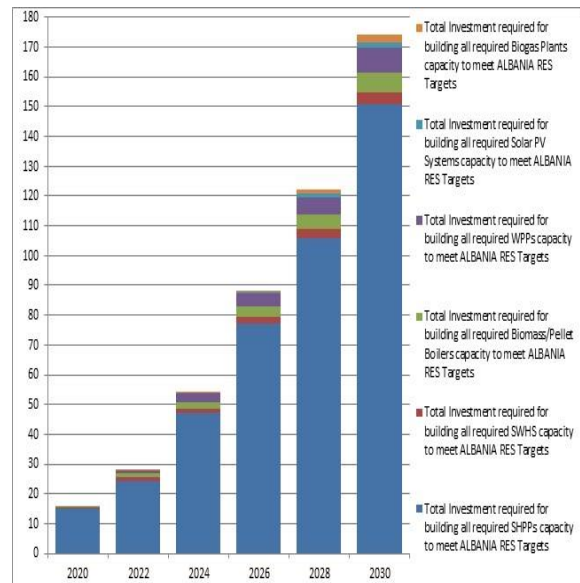


Figure 5-21: Yearly RE main elements that EE/RE MSMEs are and will be producing in the future (million EUR)

Source: Consultant's own calculations for RE technologies

5.6.9 All energy efficiency and renewable energy technologies

Figure 5-22 presents the cumulative forecasted investments required for both groups of EE/RE technology reaching 1,600 million EUR. Figure 5-23 presents the yearly investments required (50 million EUR) for each EE/RE technology reaching 400 million EUR. This is a huge potential and the Albanian EE/RE MSMEs can

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

and should prepare their strategies supported by the Albanian Government in order to increase their production.

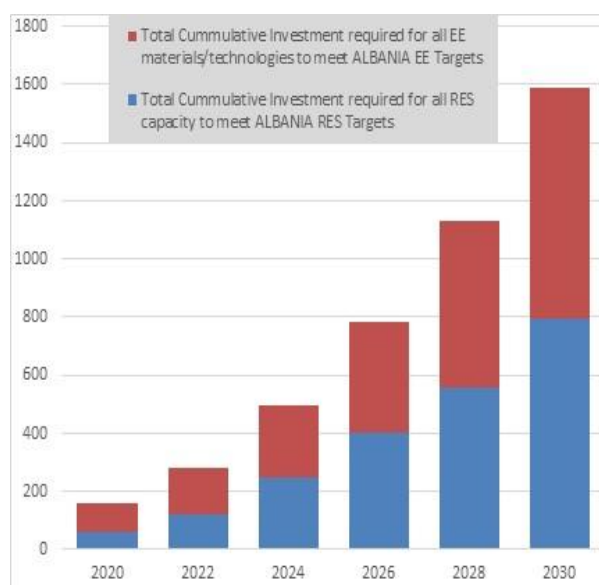


Figure 5-22: Cumulative EE and RE elements market and the elements, which could be produced by EE/RE MSMEs (million EUR)

Source: Consultant's own calculations for EE/RE technologies/materials

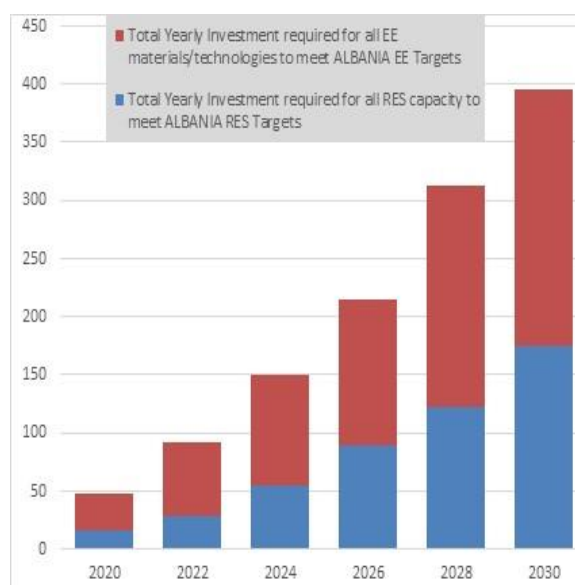


Figure 5-23: Yearly EE and RES main elements that EE/RE MSMEs are and will be producing in the future (million EUR)

Source: Consultant's own calculations for EE/RE technologies/materials

Albania's EE/RE manufacturing industry foundations date back to the early 1960s, when the first efforts to develop and produce the boilers, solar hot water collectors, and thermal insulation materials started. Since then many industrial manufacturing enterprises have been established, and this key sector transformed itself from assembly-based partnerships to a fully-fledged industry with design capability focused on various spare parts and elements production capacity. Meeting EU quality and safety standards, today's Albanian EE/RE MSMEs are improving continuously their efficiency and increasing the number of finished products, which also increases the value-added for the whole economy.

The sector's export and R&D capacity should be supported by high productivity levels, thanks to cooperation between the key components of the industry, with its subdivisions, positive interaction created in the joint university-industry projects and advanced logistics facilities. EE/RE MSMEs should in the future fully comply with EU environmental and technical standards.

Improving in a way that preserves its innovative and flexible structure in the intensely competitive environment, MSMEs EE/RE manufacturing enterprises should be ready for attracting all investments needed to improve their production lines with state-of-the-art technologies. Ambitious targets for the period 2021-2030 have been calculated and they are 1,600 million EUR (cumulative value at the year 2030) for reaching domestic market, an export volume amounting might reach 400-500 million EUR (at the year 2030). So, MSMEs EE/RE manufacturing enterprises could benefit from above mentioned market and in the same time could employ 100,000-120,000 workers of all categories. A SWOT analysis for the Albanian MSMEs EE/RE manufacturing is presented in Table 5-5.

Table 5-5: SWOT analysis for the Albanian MSMEs EE/RE manufacturing

Strengths:	Weaknesses:
<ul style="list-style-type: none"> • Geographic proximity to Europe makes Albanian EE/RE manufacturing enterprises a relatively strong production base; • Lower labor costs compared with EU countries; • Actual experience as exporters, reflecting the importance of the Albanian EE/RE producer's industry to the economy; 	<ul style="list-style-type: none"> • Low level of expertise, especially about engineering; • Low level of expertise, especially for different professions, as will be described in more details in the following session; • Access to market; • Access to cheap finance;

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

<ul style="list-style-type: none"> • Customs Union with the EU reduces tariffs on exports; • Utilization of the already gained R&D experience based on EU experience. 	<ul style="list-style-type: none"> • Absence of production certificates and quality standards.
<p>Opportunities:</p> <ul style="list-style-type: none"> • Ambitious targets for the near future have been set for the Albanian EE/RE producer's industry, including achieving 1,600 million EUR for reaching internal market, and an export volume amounting to 400-500 million EUR; • Expected increase in per capita income will boost consumer spending, especially investing into the EE/RE equipment in all economic sectors; • The opening of EU with an opportunity to become a major supplier and increase exports; • Further incentives, including different tax exemptions, which need to be discussed in more detail with the Ministry of Finance. 	<p>Threats:</p> <ul style="list-style-type: none"> • The transfer of production, which could be expected from high-cost EU countries to Albania is resisted by the strong labor unions in EU countries; • Dependence on EU markets; • Rapid growth of EE/RE MSMEs in all EU countries.

According to above SWOT analysis another indicator of the advanced level of the Albanian EE/RE manufacturing enterprises is the rate of domestic input in the production stage. Around 25-40% of domestic input needed to cover EE/RE targets not only reduces the dependency on foreign sources, but also helps other local industries. The combined advantage of the engineering capability required to compete in the international market with reasonable labour costs enable the Albanian EE/RE producers industry to offer a range of products and components that are both high-quality and affordable.

EE/RE production of Albania industrial manufacturing enterprises has also started to take up an increasing portion of the country's exports. On the other hand, Albania imports EE/RE machinery lines from EU. Although a trade deficit for EE/RE machinery products still remains, the overall balance has begun to shift towards positive values in recent years.

6. Practical measures, opportunities, and guidelines for MSMEs delivering energy-efficient products and providing renewable energy equipment on access to financing, markets, and advanced technologies in Albania

Several practical measures for MSMEs delivering energy-efficient products and providing renewable energy equipment on access to financing, markets, and advanced technologies in Albania were considered to define clear guidelines for MSMEs in time of crisis. The practical measures showed that MSMEs can even grow in the new working environment and the challenges that they are facing due to the pandemic can be overcome.

6.1 Practical measures for MSMEs delivering energy efficient products and services in getting access to markets, financing, and advanced technologies

6.1.1 Upcoming Revolving EE/RE Mechanism for retrofitting Municipal Public Buildings

The World Bank (WB) together with the Ministry of Infrastructure and Energy (MIE) has carried out an in-depth study for introducing the Revolving EE/RE Mechanism for Retrofitting Municipal Public Buildings.

The Law "on Local Government" allows all Municipalities to independently obtain revenue and finance service provision under their jurisdiction. The city councils govern the allocation and disbursements of the local portion of the municipal budget. In the public educational institutions, the city councils cover electricity, heating, and other recurring operation and maintenance costs. The central government provides funds to all municipalities in Albania to meet the requirements for the provision of shared and delegated functions. In education, the central government covers teachers' salaries, social security contributions, and other employment-related costs

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

through the Ministry of Education Sport and Youth (MoESY). Figure 6-1 presents operation budget flow for all municipal education buildings.

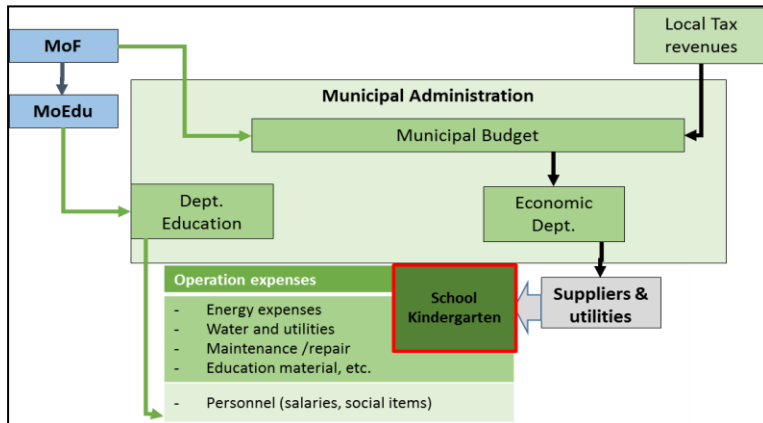


Figure 6-1: Operation budget flow for all municipal education buildings

Source: WB Draft Report “Revolving EE/RES Mechanism for retrofitting Municipal Public Buildings”

Entities responsible for municipal buildings are obliged based on “Local Governmental” Law to conduct retrofit works and new investments according to the Law on Public Procurement, and its secondary legislation for preparation of tender documentations, evaluation of bids for works, and awarding contracts. The contracting authority awards contracts to the qualifying, most economically advantageous tender, which is typically based on the lowest price. The law does not allow contract awards based on lifetime cost and benefit analyses.

The flow of capital investment funds is summarized in Figure 6-2. Using a kindergarten example, the municipal department of education would identify the need for a retrofit, and the economic department of the municipal authority would designate a segment of the municipal investment budget for the investment and/or apply for an investment budget from Tirana Municipality and possibly from the MoESY. The ministry would then apply to the MFE, which can allocate the funds from its annual building renovation budget. The economic department of the municipality can also apply for resources through the ADF (Albanian Development Fund) if the project qualifies for an ongoing ADF program. Other sources of investment funds are (i) international donors such as UNDP; and (ii) bilateral donor contributions such as the KfW’s Tirana Student City and Albanian-American Development Foundation.

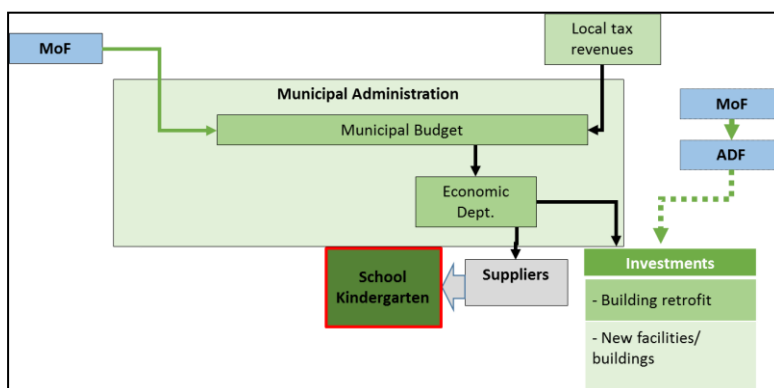


Figure 6-2: Capital budget flow for Tirana Municipality education buildings

Source: WB Draft Report “Revolving EE/RES Mechanism for retrofitting Municipal Public Buildings”

Both above mentioned schemes are used from different Municipalities and they guarantee rehabilitation of a small number (compared with the total stock) of public buildings. Total public building stock in Albania is 9500 buildings and total area equal to 6.8 million m². Total investment required, according to the WB estimation are 600 million USD and first phase of Revolving EE/RE Mechanism for retrofitting Municipal Public Buildings will be 150 million USD for the period 2022-2025.

It is important to point out that the Revolving EE/RE Mechanism for Retrofitting Municipal Public Buildings will be the most important financing mechanisms in order to increase the number of public buildings rehabilitated or newly constructed during the year for the next decade. This EE/RE Revolving Mechanism will be very important for MSMEs having stable programme for developing a market for EE/RE products and services and to scale-up EE/RE credit line for all Municipalities and the public buildings sector. The EE/RE market in all Municipalities has started, firstly with central and local government budget and introduction of the EE/RE Revolving Mechanism will boost and speed up the process on providing services and equipment for project preparation and implementation, such as energy auditing, detail engineering design, production of high quality EE/RE products, construction services or EE/RE equipment installations.

6.1.2 Financing Sustainable Energy Sources Projects credit line supported by EBRD and GGF together with commercial banks of Albania

EBRD and Green for Growth Fund (GGF) have been financing commercial banks in Albania for 13 years and established Financing Sustainable Energy Sources Projects credit lines. The main objective of these credit lines is to promote EE/RES in all economic sectors, finance MSMEs to produce EE/RES materials for meeting domestic demand and for the export, through providing loans (including grants and lower interest rates) and other forms of support like EE/RE campaigns.

These credit lines serve as an investment support mechanism for increasing the interest of MSMEs to invest in energy efficiency and renewable energy projects as well as for increasing the EE/RE production. At the same time, they serve to support local commercial banks in providing knowledge and expertise to facilitate such projects and reduce risks for developing new products for commercial entities interested in investing in the sector.

Direct benefits for MSMEs from EBRD and GGF credit line are as follows:

1. Establishing stable EE/RE market too guarantee stable business for many years.
2. 10-20% grants (only for EBRD credit lines) for loan amount after successfully implementation and verification of EE/RE equipment.
3. 0.5-2% lower loan interest rates (compared to average rates) for EE/RE projects (only for GGF credit lines).
4. Defining the eligibility criteria's minimum standards for all EE/RE materials and products. This will give a good signal to MSMEs which are producing EE/RE materials and equipment to improve their quality in order to boost their market.
5. Carry out EE/RE awareness campaigns informing customers, which at the same time will boost the market.
6. Securing working capital loans with lower interest rate for MSMEs, which are producing and trading EE/RE materials and products according to the eligibility criteria's minimum standards. Under such cases working capital loans are 0.5-2% lower loan interest rates (compared to average rates) only for GGF credit lines.

6.2 Practical measures for MSMEs providing renewable energy equipment in getting access to markets, financing, and advanced technologies

PV Autoproducers are very important technologies for supporting all categories of customers for meeting electricity demand as well as for MSMEs dealing with EE/RE products/ systems/ parts.

6.2.1 Introduction of a digital platform for issuing permits of PV Autoproducers

In order to promote and raise the interest in the RES, the Minister of Infrastructure and Energy approved a regulation, which presents the application procedures and the technical guides for connection of the PV plants with installed power capacity < 500 kW_{peak} to the distribution system by the Net-Metering scheme. The digital platform prepared by Albanian Distribution System Operator (OSHEE – Operatori i Shperndarjes te Energjise Elektrike) for issuing permits of PV Autoproducers is very wide with many detailed technical aspects and all customers categories (houses, MSMEs and large commercial and industrial enterprises) are considered. OSHEE has the right to request to PV

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

Autoproducer applicant to consider the following aspects in order to issue them permits to be connected with the distribution network for all categories above:

- > Not impacting the actual distribution network;
- > Installation of transformers with automatic voltage regulation;
- > Monitoring of network nodes with advanced distributed Supervisory Control and Data Acquisition (SCADA);
- > Network reconfiguration if it will be needed and all investment to be done by customer;
- > Connection-point management for the PV plants;
- > Advanced closed-loop techniques;

Before establishment of the digital platform, OSHEE grid connection point procedure had been lengthy (3-6 months) and could be grouped in 3 periods: development, construction and operation. Figure 6-3 presents the main steps.

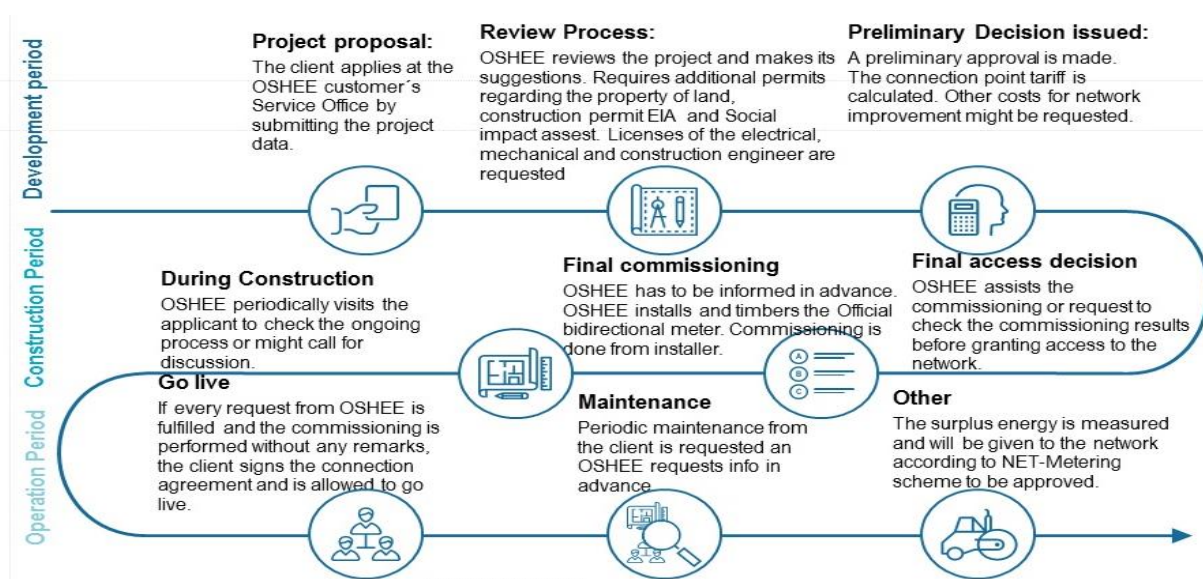


Figure 6-3: Description of PV Autoproducer grid connection procedure

Source: Consultant's own analysis

The procedure under digital platform (presented in Figure 6-4) for the PV Autoproducers grid connection with OSHEE are now carried out much faster (up to 4 weeks).

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

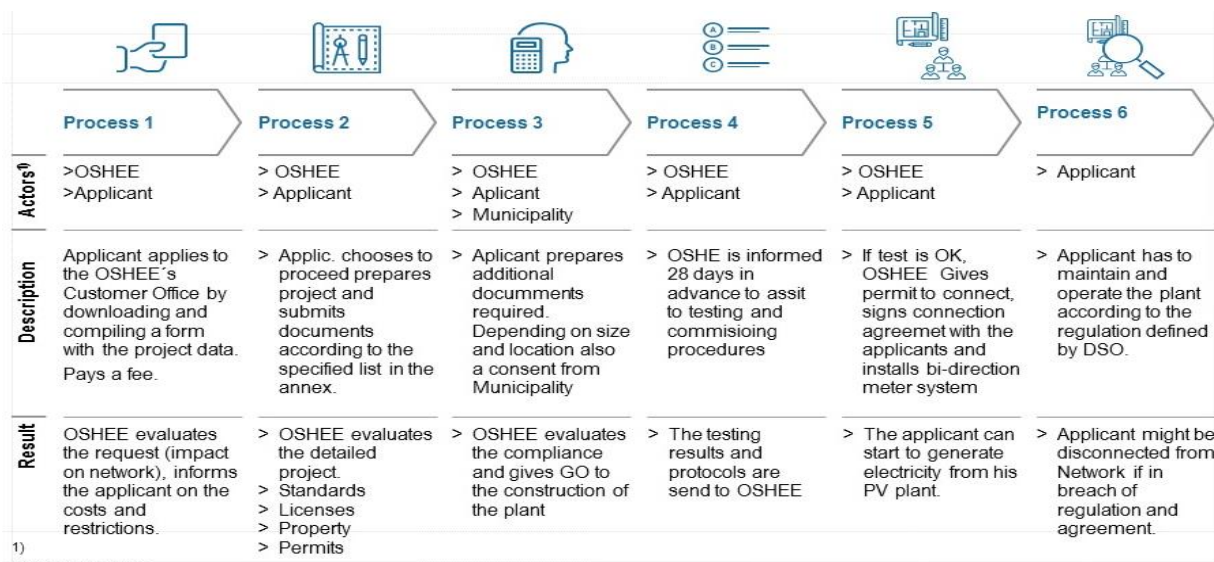


Figure 6-4: RE Independent Power Producers (IPPs) proposed grid connection procedure with OSHEE

Source: Consultant's own analysis

Digital platform innovative way of dealing with permitting issues with the PV Autoproducers has assisted the MSMEs to increase online communication, save time and has eliminated the need for direct contact with OSHEE's office. This is very important especially during the Covid-19 crisis time where the service provider does not have to be physically present, which is important for the safety of the customers, as well as employees. Also, increasing the online visibility of the MSMEs as a result of increased the PV Autoproducer demand, which in turn is mitigating the consequences from the pandemic.

6.2.2 Continuation of Investment Activities in EE and RE during the Covid-19 crisis

Based on the very approximate data collected by the National Agency of Natural Resources (Agjensia Kombetare e Burimeve Natyrore – AKBN), the analysis shows clearly that the number of RE PPs with installed capacity lower than 500 kW is 40 and their total capacity is 11 MW. This number is very small and the potential is much higher. Potential number of PV Autoproducers and their potential installed capacity is calculated by the consultant based on the assumptions presented in Table 6-1.

Table 6-1: Potential number of Solar PV Autoproducers and their potential installed capacity

Parameters	Residential	Industry	Service	Agriculture	Total
Approx. Number of Customers	865,000	10,270	119,649	49,931	1,044,850
Maximum Penetration Rate of PV Autoproducers	7.50%	15.00%	10.00%	10.00%	7.98%
Total Potential Number of Solar PV Autoproducers to be installed	64,875	1,541	11,965	4,993	83,374
Average Capacity of Solar PV Autoproducers	1.10	24.81	3.55	1.36	1.90
Total Potential Installed Capacity of Solar PV Autoproducer, MW _{peak}	71.33	38.21	42.46	6.79	158.80

Source: Consultant's own analysis

Number of Solar PV Autoproducers and their potential installed capacity has been calculated based on the penetration rates and the average installed capacity for each category of customers. Analysis of results shows clearly that share of Solar PV Autoproducers with an installed capacity lower than 500 kW will be only 6.31%, with absolute value equal to 158.80 MW and it will be constructed in the course of 2020-2025, according to the RES targets and could be managed by OSHEE.

Also, it is important to be mentioned that MIE has issued authorization for 3 largest PV farms with total capacity of 300 MW_{peak} and according to their investment plan their investment will be 350 million EUR. Adding also 158 MW_{peak} of PV Autoproducers with approximate investment of 160 million EUR, total market for next five years only for PV technologies will be 460 million EUR. And this will be clearly a benefit Albanian MSMEs producing parts for PV systems will have stable market for the next five years. As experience has shown in these two years, the Covid-19 crisis did not prevent the companies that have already started investment activities from implementing PV Autoproducer technologies. On the contrary, investments in RE, infrastructure, energy efficiency projects, environmental protection are implemented as planned not just in PV area but also in SHPPs and Biomass technologies).

6.3 Opportunities for repurposing of MSMEs in the aftermath of the Covid-19 crisis

6.3.1 Public-Private Partnership (PPP) and Energy Service Company (ESCO) for introducing EE LED public street lightning

PPP and ESCO models are possibilities for changing the way companies work, as well as a possible market for services that are defined with the Law on Energy Efficiency. Increasing utilization of PPP agreements can create benefits for the companies, the Government, and for the general public. In a situation when several companies have problems with lowered demand, this will incentivize increased trade activity.

The project "Creating conditions for the implementation of ESCO projects" is funded by the Regional Energy Efficiency Program (REEP) of the European Union (EU) led by EBRD in cooperation with the Energy Community Secretariat and aims to support energy efficiency projects for street lighting in municipalities and small distribution heating systems. Introducing EE LED public street lightning, financed and implemented by private energy service companies (ESCOs) through a long-term contract signed between three parties: Municipality, ESCO and EBRD. Implementation of ESCO concept for financing EE LED street lighting in 61 Albanian municipalities has a large potential and MSMEs delivering products (poles, wiring, lighting heads, construction works) and installation of this technology will have a large market up to 250 million EUR for the next several years in Albania.

6.3.2 Repurposing towards R&D

The company Algrafika sh.p.k. decided to repurpose its activities towards R&D by preparing standard PV Autoproducer packages for 5 kW_{peak}, 10 kW_{peak} (for residential customers), 50 kW_{peak} (motels, restaurants and micro- and small enterprises customers), 100 kW_{peak} (medium hotels and medium enterprises) as well as 500 kW_{peak} (large hotels and large enterprises). They created 5 dedicated PV Autoproducers packages to deliver them immediately based on the customer's request. In order to successfully implement the project, the company even created several additional jobs, a success that should be highlighted, especially during a crisis. It is a clear direction for MSMEs towards providing RE equipment during COVID-19 – it shows that the company can repurpose its activities (towards R&D and standardization) and grow. The solution is still at an initial phase of development and up to now they have installed first 15 PV Autoproducer packages. In a condition of lowered demand for services due to the pandemic, R&D is an option for MSMEs to grow safely, with great conditions for work from home.

6.4 Guidelines to MSMEs delivering energy-efficient products and providing renewable energy equipment on access to financing, markets, and advanced technologies in Albania

EE/RE production industry in Albania is labour intensive rather than capital intensive and is expected to remain so in the near future. The readily available workforce in Albania plays a vital part in the development and well-being of the machinery industry as it guarantees competitiveness through low-cost labor and engineering services. However, the cost-effectiveness of labour and engineering does not in itself make a world-class machinery industry. In this regard, the advantage of the Albanian EE/RE manufacturing enterprises lies in the accumulation of companies with different capabilities, strategies and products, so that EE/RE clustering provides a technological edge to the overall industry. The harmonization of EU legislation in accordance with

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

Albania's accession process has made it compulsory to obtain the necessary safety and compatibility certifications.

Energy efficiency and renewable energy can play a vital role in post-Covid-19 economic recovery. Implementing EE measures and installing RE equipment can improve drastically the economic competitiveness of the companies and reduce their operating costs (energy costs are around 10-30% for MSMEs based on the surveys carried out from AKBN). The best practices presented in this study prove that energy efficient products and renewable energy equipment are viable options as an action against the economic crisis resulting from the pandemic. Based on the conclusions from the analysis and the best practices in this study, a set of guidelines was created, to help the MSMEs in getting access to markets, financing, and advanced technologies.

- Repurposing of MSMEs towards highly demanded services in the new working environment because of the Covid-19 crisis. The practical examples showed that repurposing of MSMEs towards EE products and RE equipment projects can be an important measure to mitigate the influence that the pandemic had on the day-to-day operations of MSMEs. New services can be created to respond to the new highly demanded products.
- MSMEs should be aware of and benefit from the Government packages related to Covid-19 recovery programmes.
- MSMEs should be aware of and benefit from different programmes, which are and will be led by the Energy Efficiency Agency and AKBN according to the Strategy of Energy, NEEAP and NREAP.
- MSMEs should nominate a focal point in their company to follow all EE/RE programmes with financial support from the following donors: EU, EU Instrument for Pre-Accession Assistance (IPA), EBRD, KfW, WB, EIB, SECO and the UN System organizations: UNECE, UNDP, UNIDO, UNOPS. This will help MSMEs to increase the use of innovative programmes and financial schemes supported by the above-mentioned donors and IFIs. These programmes support energy efficiency and renewable energy projects and are a good opportunity for the companies to gain access to financing and improve their services.
- MSMEs can apply for IFIs programme (EBRD and GGF) with grants and preferential loans for EE and RE programmes. In the situation that was created because of the crisis, these grants and preferential loans are important for MSMEs to gain financing towards the implementation of the measures to reduce the effects of the pandemic, like repurposing of the activities or R&D of innovative EE products and RE equipment;
- Creating partnerships for easier access to supplies, resources, and markets. Creating partnerships can widen market possibilities and the ability to access financing for MSMEs in the EE and RE sectors, due to the combination of capacities and access to shared technology from the various partners. Because of a relatively small size of MSMEs, building partnerships is essential for increasing the competitiveness of the companies and battling the effects of the pandemic.
- MSMEs can prepare PPP/ESCO proposal in order to benefit from the above-mentioned government instruments to boost the economy. MSMEs can take advantage of ESCO schemes for increased utilization of energy efficient products, for example in the public building and street lighting sectors.
- Chambers of Commerce and Industry should organize online trainings for MSMEs to present NEEAP, NREAP, investment opportunities, new EE/RE possibilities as well as all possible programmes and financial schemes to expand their business for EE/RE producers.
- Chambers of Commerce and Industry should organize trainings for MSME employees in order to support MSMEs.
- MSME management staff should carry out online training for their staff in order to use the Covid-19 pandemic time for capacity building and design of new EE/RE products.

7. Conclusions and Recommendations

The COVID-19 pandemic is like a war in many ways. For this reason, each of us must adapt to this new way of living, and the government in particular must ensure that its policies are effective, clear and easily applicable. If policies ensure that employees do not lose their jobs and many MSMEs expand their operation

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

with new EE/RE products, the economy as a whole would benefit, and the recovery will occur sooner and more smoothly.

An effective recovery will depend on policies undertaken during the crisis. In the second half of 2021 Albania is starting to recover from the crisis caused by the pandemic and lockdowns that had to be introduced to save lives. The role of the public sector increased but the bigger intervention from the public sector is justified only by the emergency and should last just for as long as outstanding circumstances remain. It is important that public functions during the crisis must be performed in an extremely transparent manner.

The pandemic and economic shutdown are hitting the poor and vulnerable the hardest, through job and income losses, food supply disruptions, school closures and lower remittance flows. Despite the best efforts of the authorities, lasting damage seems unavoidable. The biggest challenge will be how to finance increase in expenditures when the revenues are dropping constantly. And the key solution is to push MSMEs towards new EE/RE products, including engineering design companies, developers, installers, and energy auditors by preparing a clear plan towards a sustainable green economy for the Albanian needs and for exports to other countries.

The MSME sector accounts for more than 98.6% of the economy in Albania. An analysis of MSMEs' ability to sustain themselves in a pandemic situation has shown that the majority (about 60%) can only last 3-5 months before having to stop their operations. Government introduced vaccine programmes early in January 2021, and in July 2021 vaccination rate reached 55% of all adult population. There is hope that in such conditions the Covid-19 pandemic situation will be less dramatic than in the previous months. It is very important to use the lessons learned and to continue to support MSMEs EE/RE producers to benefit from huge market potential that exists in Albania. EE/RE potential cumulative market in Albania in terms of new investments required until 2030, to meet the respective EE/RE targets, will be approximately 1,600 million EUR and this guarantees stable workload for all existing and new enterprises operating in these areas.

The government should help MSMEs EE/RE producers through concrete policies and measures. Many of the measures concern companies' finances and liquidity, for example, by offering low interest loans (e.g. with assistance from IFIs) as well as tax reductions. These measures aim to prevent companies from collapsing, but on the other hand, there is a lack of measures that will help companies that stopped their operations to overcome the crisis and to resume working soon after the pandemic.

On the other hand, in addition to the assistance offered by the government, MSMEs EE/RE producers have taken measures to deal with the crisis. Some companies have successfully transferred their operations from the regular workspace to remote locations (such as employees' residences). MSMEs EE/RE producers should focus their business only on the most important EE/RE projects that would allow them to recover and grow, since the respective EE/RE market exists and it is very big.

Through an extensive survey and research of available best practices of MSMEs in delivering EE finished products or their components, providing renewable energy components/systems/equipment, it was concluded that MSMEs including EE/RE producers need to reshape their business model and understand market development related to EE/RE trends and targets in Albania. MSMEs including EE/RE producers need to increase the utilization of various funds, programmes and preferential loans, extend their partnership and networking in order to overcome the issues of supply and product placement, reorganize their schedule and capabilities (through trainings). MSMEs including EE/RE producers need to increase their outreach towards customers in a safe manner, e. g. through digital stores, online support, social media presence, and if possible, try to repurpose their activities towards the new highly demanded products on the market due to the changes in the working environment.

On the other hand, based on the analysis of the new working environment and the issues that the MSMEs are facing, and the governmental policies, there are many ways that the government can influence and mitigate the impact of the crisis on MSMEs. Some of the recommendations towards policies and measures that the government could implement include increased utilization of PPP, tax reduction for all MSMEs including EE/RE producers, and introduction of "green" procurement and development of EE/RE programmes with support of various international organizations and IFIs (e.g. EU, IPA, EBRD, KfW, WB,

New opportunities will be available for MSMEs working in the area of energy efficiency and renewable energy in buildings with the adoption of Minimum Performance Requirements of Building (see Annex III). Annex III presents a summary of minimum energy performance requirements related to EE/RE technologies to be installed for existing and new buildings to receive an A or B Energy Performance Certificate of Buildings.

7.1 Recommendations to the Government of Albania in creating an enabling environment through appropriate policies and legislation for MSMEs to encourage delivery of energy efficient products and services and provision of renewable energy equipment

The objective of these recommendations is for the Government to introduce appropriate policies and legislation for MSMEs to encourage delivery of energy efficiency products and services and provision and use of renewable energy equipment. It would be very important for the Government to:

- Support vulnerable individuals that are hit by the crisis. Unemployment benefits or other categories of economical support should be expanded in categories and extended in time. This period can be used for online trainings in order to prepare these people for changes in the job market related with all professions of design, production, installation and operations all EE/RE materials and systems.
- Support vulnerable EE/RE producers by including them in the recovery Governmental programmes for the period 2021-2022. Help businesses to overcome the crisis caused by the Covid-19 pandemic and assist MSMEs, including EE/RE producers, with the NEEAP and NREAP implementation programmes lead by EE Agency and AKBN.

7.2 Recommendations to the Government for developing policy guidelines and establishing financial incentives schemes

There is hope that by the end of 2021 the pandemic will be largely under control through vaccination of the majority of the country's population, availability of reliable medical treatment and/or herd immunity, and the economy will start to improve gradually towards its normal functioning. To achieve this economic recovery as fast and smooth as possible, both the national economy in general and EE/RE sector (including MSMEs) in particular, the following specific policy measures are recommended.

- The government has already provided wage subsidies, agreeing with banks for loan installments postponement and in many cases rescheduling loan repayment programmes, training employment programmes, and tax cuts. These programmes should continue to help certain categories of vulnerable people as necessary. In particular, the government, specialized agencies and Chambers of Commerce and Industry should especially support MSMEs EE/RE producers that lack access to credit by assisting them to participate under grant and soft loan financing programmes for securing the liquidity (working capital) needed for day-to-day operations.
- The Government should encourage and financially support new EE/RE investments and projects by establishing long-term programmes for implementation of NEEAP and NREAP, especially since these programmes are helping in creating new jobs, implementing modern technologies, reducing the need for imports, and thus reducing the trade deficit of the country.
- The Government should engage in reforms to reduce regulatory barriers and unbundle and privatize protected state-owned energy enterprises. The transparency of the Government is a key step in creating an attractive investment environment, especially with EE/RE measures implemented, which have a direct impact on the meeting the GHG mitigation targets according to NDC.
- Introducing e-Albania not only in e-procurement (which is implemented successfully since the middle of 2019 for public procurement of goods and services), but also applying the same e-platform for all procedures for issuing the permits for the construction and operation of the Renewable Energy Independent Power Producers.
- Protect workers from employment risks and boost new employment opportunities by provided wage subsidies for MSMEs. Develop policies to adapt the work force to new post-COVID 19 professions by carrying out the respective training programmes through the specialized Agencies

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

and Chambers of Commerce and Industry.

- Secure grants and soft loans for MSMEs, EE/RES producers by making them aware and assisting them to participate in EE/RE programmes already in operation by EBRD and GGF.
- Allow well-performing municipalities to contract MSMEs EE/RE producers and installers to propose public-private partnership (PPP) and ESCO financing for different municipality services (improving EE for public buildings and public street lighting) based on long-term contracting and a sovereign guarantee if needed for large projects. This method can be of benefit for both EE/RES producers and the Government and, ultimately, for the general public. In a situation when many companies have problems with reduced demand, this will incentivize increased trade activity, especially for EE/RES producers.
- Scale up existing instruments to support the new and innovative business. One such example Municipality of Tirana has started to support of start-ups for innovative ideas and technologies through small grants by the Municipality of Tirana.
- Introduction of tax reduction for MSMEs working in the area of energy efficiency and renewable energy. Reducing the tax burden for EE and RE MSMEs will increase the demand and utilization. It would help set up favorable market conditions for these products, and also help companies increase their competitiveness and reduce their cost of services.
- The Government should be focused on the implementation of NEEAP and NREAP and give some degree of priority under public procurement, by introduction of “green aspects” as part of the already established e-Albania procurement platform. Due to the positive influence on post-Covid-19 recovery and strengthening of the competitiveness of the MSMEs through EE and RE, more focus on these projects needs to be added to the available programmes for MSMEs. The Government is one of the biggest consumers. By choosing EE and RE products and advanced technologies it would make an important contribution towards sustainable consumption and production.
- Introducing EE and RE measures for MSMEs in national strategies and action plans that cover the sector of sustainable energy. When developing short-term planning and long-term vision for the growth of the EE and RE sectors, the Government should also envision how MSMEs would benefit from EE/RE measures and should incorporate them in the strategic vision.
- Establishing EE and RE programmes with support of donors and IFIs. These EE/RE programmes will support promoting the strategic vision of the country moving towards sustainable energy and climate initiatives. These programmes would also help reduce some of the operating costs of public institutions and give a boost to the production by MSMEs EE/RE with increased interest for their products and services. The Government through its specialized agencies should be more proactive and assist MSMEs in establishing programmes in the near future, so they would be an additional important tool at the disposal of MSMEs in the post-Covid-19 recovery period.
- The Government should increase transparency of the process of application for subsidies. As the survey demonstrates, a significant number of the MSMEs do not know how to apply for no-interest/low-interest loans. Facilitating this process will enable bigger utilization and wider spread of the available measures.
- The Government should create clear guidance on available measures and solutions that the EE/RE producers can implement to endure the crisis and the short-term and long-term impacts of the pandemic. This guidance should not be limited only to the governmental measures, but include also other support instruments, such as international donor organizations, private initiatives, internal measures by companies, etc.
- There should be adaptation measures, as well as mitigation measures available. For example, the Government could support the laid-off workers and create a conducive environment for start-ups that will focus on the opportunities derived from the changes in the work environment (online businesses, medical research, etc.).

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Annex I. Questionnaire for the impact of COVID-19 on the micro-, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

Dear Madam/Sir,

UNECE is one of the partners implementing UNDA project “Global Initiative towards post-Covid-19 resurgence of the MSME sector”. The overall goal of the project is to strengthen the capacity and resilience of micro-, small and medium enterprises (MSMEs) in developing countries and economies in transition to mitigate the economic and social impact of the global Covid-19 crisis.

As part of its task under the project, UNECE is developing Guidelines and Best Practices in Albania for MSMEs in delivering energy efficient products and in providing renewable energy equipment. In the previous activities of the project, a study for the UNECE region has been developed, which can be seen at the following link: [Link to the study](#)

This project is fully in line with Albanian Government Economic recovery policy in general and Energy strategy in particular. Albanian Government has approved the EE Law, RE Law, Energy Strategy, Economic Recovery Plan and this research will help enterprises and Government to suggest the proper incentive schemes for all enterprises who producing EE/RES equipment's/materials and are implementing EE/RES measures.

Role of MSMEs in delivering energy efficient products and in providing renewable energy equipment can become crucial in the post-Covid-19 recovery phase if they are provided with necessary incentives. This can be one of the ways to restart MSMEs or even to create new ones when job opportunities are scarce. MSMEs can benefit from clear guidelines on access to financing, access to markets, access to advanced technologies, and a favorable environment created by proper government policies and legislation. They will also benefit from concrete examples of successful implementation of measures by MSMEs, including repurposing that led to significant economic gains. In return, MSMEs can become engines for post-crisis economic recovery, creating job opportunities and leading socially responsible and environmentally friendly economic development thus helping to achieve numerous sustainable development goals.

UNECE has engaged Dr. Besim Islami as the Consultant for this project. He is in the process of collecting and analyzing materials. One of his tasks is to collect and analyze case studies of best practices from Albania. We are asking you to assist Dr. Besim Islami in direct outreach to MSMEs or large companies that use MSMEs in their supply and/or distribution chain, which achieved proven results in overcoming consequences of the Covid-19 crisis by implementing an updated management and/or processing approach, focusing specifically on companies that deliver energy efficient products or services and/or provide renewable energy equipment. Case studies from past crises (financial, caused by natural or manmade disasters, conflicts, etc.) that would be useful in the post-Covid recovery are also welcome. We are kindly asking for your support in identification of such companies for further communication and exchange of their positive experience. Please find attached data collection template for your reference and better understanding of the potential case studies required information. In case you have such information please contact Dr. Besim Islami directly at besimgosa@gmail.com at your earliest convenience, preferably before June 14, 2021.

Questionnaire

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

1. Main general data of the MSME			
Company:		Address:	
Tel:		Email:	
Website:		Contact person:	
2. Where is your company classified?			
Micro (1-9 employees)	Small (10-49 employees)	Medium (50-249 employees)	Large (250+ employees)
3. How did COVID-19 impact your daily work?			
Not at all		Negatively	Positively
4. What does your company produce or service?			
<input type="checkbox"/> Final products		<input type="checkbox"/> Intermediate products	<input type="checkbox"/> Components
<input type="checkbox"/> Elements		<input type="checkbox"/> Spare parts	<input type="checkbox"/> Services
5. Please specify what kind of EE/RES equipment's/materials is producing your enterprise:			
<input type="checkbox"/> Production of Thermal Insulation Materials (polysterol)		<input type="checkbox"/> Production of Thermal Insulation Materials (mineral wool)	<input type="checkbox"/> Production of Thermal Insulation Materials (stone wool)
<input type="checkbox"/> Completed EE Windows		<input type="checkbox"/> Components of EE Windows	
<input type="checkbox"/> Completed EE Doors		<input type="checkbox"/> Components of EE Doors	
<input type="checkbox"/> Completed Wood/Chips/Pellets/Briquettes Boiler		<input type="checkbox"/> Wood/Chips/Pellets/Briquettes Boiler components	
<input type="checkbox"/> Completed Solar Hot Water Systems		<input type="checkbox"/> Solar Hot Water Systems components	
<input type="checkbox"/> Solar PV Systems components		<input type="checkbox"/> SHPPs components	<input type="checkbox"/> WPPs components

6. In which markets are you active, which markets are under preparation, which markets are interested in exploring market opportunities in and which markets are not relevant?				
Market	Active	Under preparation	Interested in exploring market	Not relevant
Locally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Balkan countries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EU countries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rest of world e.g. Turkey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. What kind of support does your company need to expand operations?	Yes	No
Support to introduce new technologies/ upgraded methodologies in production and administration	<input type="checkbox"/>	<input type="checkbox"/>
Investment in vocational skills	<input type="checkbox"/>	<input type="checkbox"/>
Introduction of social or ecological standards	<input type="checkbox"/>	<input type="checkbox"/>
Introduce new quality standards and certifications	<input type="checkbox"/>	<input type="checkbox"/>
Developing innovative products	<input type="checkbox"/>	<input type="checkbox"/>
Information on and analysis of the market demand and potentials in the new targeted sectors (e.g. RE & EE) for metal processing products/services	<input type="checkbox"/>	<input type="checkbox"/>
Support in developing the value chains in the new targeted sectors (e.g. RE & EE) for value creation in metal processing sector	<input type="checkbox"/>	<input type="checkbox"/>
Support to create new business models for value creation in manufacturing sector from new targeted sectors (e.g. RE & EE)	<input type="checkbox"/>	<input type="checkbox"/>
Networks with potential investing partners and institutions from EU	<input type="checkbox"/>	<input type="checkbox"/>
Information's on financial support institutions for investments in new productions and technologies	<input type="checkbox"/>	<input type="checkbox"/>

Annex II. Pyetesor per ndikimin e COVID-19 ne Ndermarrjet Mikro, te Vogla dhe te Mesme (NMVM) qe prodhojne produkte me Eficence Energjie (EE) dhe pajisje me Energji te Rinovueshme (RE) (ne Shqiperi)

E/I nderuar Zonje/Zoteri,

UNECE eshte nje nga partneret qe zbaton projektin e UNDA "Iniciativa Globale per ringjalljen e Sektorit te NMVM-ve pas-Covid-19". Qellimi i pergjithshem i projektit eshte te forcoje kapacitetin dhe qendrushmerine e Ndermarrjeve Mikro, te Vogla dhe te Mesme (NMVM) ne vendet ne zhvillim dhe ekonomite ne tranzicion per te zbutur ndikimin ekonomik dhe social te krizes globale Covid-19.

Si pjese e detyres ne kuader te projektit, UNECE po zhvillon Udhezimet dhe Praktikrat me te mira per NMVM-te qe prodhojne produkte EE dhe pajisje RE ne Shqiperi. Ne aktivitetet e meparshme te projektit, eshte zhvilluar nje studim per rajonin e UNECE, i cili mund te shihet ne linkun e meposhtem: Linku per studimin

Ky projekt eshte plotesisht ne perputhje me politiken e rimekembjes ekonomike te qeverise shqiptare ne pergjithesi dhe strategjine e energjise ne vecanti. Qeveria shqiptare ka aprovuar Ligjin per EE, Ligjin per BRE, Strategjine e Energjise, Planin e Rimekembjes Ekonomike dhe ky studim do te ndihmoje ndermarrjet dhe Qeverine te sugjerojne skemat e duhura te stimulimit per te gjitha ndermarrjet qe prodhojne pajisje EE dhe qe japin masat RE. Roli i NMVM-ve ne shperndarjen e produkteve me eficence te energjise dhe sigurimin e pajisjeve te energjise se rinovueshme mund te behet thelbesor ne fazen e rimekembjes pas-Covid-19 nese u sigurohen stimuj te nevojshem. Kjo mund te jete nje nga menytrat per te rifilluar NMVM-te apo edhe per te krijuar te reja kur mundesite e punes jane te pakta. NMVM-te mund te perfitojne nga udhezime te qarta per aksesin e financave, qasjen ne tregje, qasjen ne teknologjite e perparuara dhe nje mjedis te favorshem te krijuar nga politikrat dhe legjislatoni i duhur i qeverise. Ato gjithashtu do te perfitojne nga shembuj konkrete te zbatimit te suksesshem te masave nga NMVM-te, duke perfshire ripozicionimin qe coi ne perfitime te konsiderueshme ekonomike. Gjithashtu, NMVM mund te behen motore per rimekembjen ekonomike pas krizes, duke krijuar mundesi pune dhe duke udhehequr zhvillimin ekonomik me pergjegjesi shoqerore dhe miqesore me mjedisin, duke ndihmuar keshtu ne arritjen e qelimeve te shumta per nje zhvillim te qendrushem.

UNECE ka angazhuar Dr. Besim Islami si konsulent per kete projekt. Ai eshte ne proces te mbledhjes dhe analizimit te informacionit per kete projekt. Nje nga detyrat e tij eshte te mbledhe dhe analizoje raste studimore te praktikave me te mira ne Shqiperi. Ne po ju kerkojme te ndihmoni Dr. Besim Islamin te kontaktoje drejtperdrejte NMVM-te ose kompanite e medha qe perdorin NMVM-te ne zinxhirin e tyre te furnizimit dhe/ose shperndarjes, te cilat arriten rezultate te provuara ne tejkalimin e pasojave te krizes Covid-19 duke zbatuar nje menaxhim te perditesuar dhe/ose perqasje perpunimi, duke u perqendruar posacerisht ne ndermarrjet qe ofrojne produkte ose sherbime me eficence energjise dhe/ose pajisje me energji te rinovueshme. Studimet e rasteve nga krizat e kaluara (financiare, te shkaktuara nga katastrofa natyrore ose te bera nga njerezit, konflikte, etj.) qe do te ishin te dobishme ne rimekembjen pas Covid-19 jane gjithashtu te mireseardhura. Me mirekuptim po kerkojme mbeshtetjen tuaj ne identifikimin e ndermarrjeve te tilla per nje komunikim te metejshe dhe per shkembimin e pervojave se tyre pozitive. Ju lutemi gjeni bashkangjitur modelin e mbledhjes se te dhenave per referencen tuaj dhe per te kuptuar me mire informacionin e nevojshem te rasteve studimore. Ne rast se keni nje informacion te tille, ju lutemi kontaktoni Dr. Besim Islami direkt ne besimgosa@gmail.com sa me heret qe te jete e mundur, idealisht para dates 14 Qershor 2021.

Pyetesor

8. Te dhena te pergjithshme per NMV-te		
Ndermarrja:	Adresa:	Tel:
Email:	Website:	Personi i Kontaktit:

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

9. Ku klasifikohet ndermarrja juaj?			
Mikro (1-9 punetore)	e Vogel (10-49 punetore)	e Mesme (50-249 punetore)	e Madhe (250+ punetore)
10. Si ndikoi COVID-19 ne punen tuaj te perditshme?			
Aspak	Negativisht	Pozitivisht	
11. Cfare prodhon apo sherben ndermarrja juaj?			
<input type="checkbox"/> Produkte perfundimtare	<input type="checkbox"/> Gjysme produkte	<input type="checkbox"/> Komponent	
<input type="checkbox"/> Element	<input type="checkbox"/> Pjese kembimi	<input type="checkbox"/> Sherbime	
12. Ju lutemi specifikoni se cilat produkte/pajsje prodhon ndermarrja juaj:			
<input type="checkbox"/> Materiale per termoizolim (Polisterol)	<input type="checkbox"/> Materiale per termoizolim (Lesh mineral/xhami)	<input type="checkbox"/> Materiale per termoizolim (Lesh guri)	
<input type="checkbox"/> Dritare te plota EE		<input type="checkbox"/> Komponente te dritareve EE	
<input type="checkbox"/> Dyer te plota EE		<input type="checkbox"/> Komponente te dyerve EE	
<input type="checkbox"/> Kaldaje te plote me druu zjarri/bersi/peleta/briketa		<input type="checkbox"/> Komponente te kaldajes me druu zjarri/bersi/peleta/briketa	
<input type="checkbox"/> Sisteme te plota diellore per ujin e ngrohte		<input type="checkbox"/> Komponente te sistemeve diellore per ujin e ngrohte	
<input type="checkbox"/> Komponente te sistemeve diellore fotovoltaike	<input type="checkbox"/> Komponente te hidrocentraleve	<input type="checkbox"/> Komponente te centraleve eolik	

13. Ne cilat tregje jeni aktiv? Ne cilat tregje po pergatiteni te hyni? Cilat tregje jeni te interesuar te eksploron? Cilat tregje nuk ju interesojne?				
Tregu	Aktiv	Ne pergatitje	Na intereson	Nuk na intereson
Lokal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shtete te tjera Ballkanike	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shtete te BE-se	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pjesa tjeter e botes p.sh. Turqia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. Cfare lloj mbeshtetje i nevojitet ndermarrjes tuaj per te zgjeruar aktivitetin?	Po	Jo
Mbeshtetje per te futur teknologji te reja / metodologji te perditesuara ne prodhim dhe administrim	<input type="checkbox"/>	<input type="checkbox"/>
Investime ne aftesi profesionale	<input type="checkbox"/>	<input type="checkbox"/>
Futja e standardeve sociale ose ekologjike	<input type="checkbox"/>	<input type="checkbox"/>
Futja e standardeve dhe certifikimeve te reja per cilesine	<input type="checkbox"/>	<input type="checkbox"/>
Zhvillim te produkteve inovative	<input type="checkbox"/>	<input type="checkbox"/>
Informacione dhe analiza per kerkesen dhe potencialet e tregut ne sektoret e ri te synuar (p.sh. RE & EE) per produktet / sherbimet e perpunimit te metaleve	<input type="checkbox"/>	<input type="checkbox"/>
Mbeshtetje ne zhvillimin e zinxhireve te shtimit te vleres ne sektoret e ri te synuar (p.sh. RE & EE) per krijimin e vleres ne sektorin e perpunimit te metaleve	<input type="checkbox"/>	<input type="checkbox"/>
Mbeshtetje per krijimin e modeleve te reja te biznesit per krijimin e vleres ne sektorin e metaleve nga sektore te ri te synuar (p.sh. RE & EE)	<input type="checkbox"/>	<input type="checkbox"/>
Rrjetet bashkepunimi me partnere dhe institucione potenciale investuese nga BE	<input type="checkbox"/>	<input type="checkbox"/>
Informacione mbi institucionet mbeshtetese financiare per investime ne prodhime dhe teknologji te reja	<input type="checkbox"/>	<input type="checkbox"/>

Annex III. Opportunities for MSMEs related to Energy Performance Certificate of Buildings

The relevant primary legislation related to the improvement of EE in all building categories (residential, public, municipal, commercial, service, industrial, agriculture and others) includes the following:

- Energy Efficiency Law No. 124/2015
- Law on Energy Performance of Buildings No. 116/2016
- Renewable Energy Sources Law No. 8/2017
- Law No. 68/2012 “On Information of the Consumption of Energy and Other Resources by Energy-Related Products”
- Law No. 8937, dated 12/09/2002 “On Conservation of Thermal Heat in Buildings”
- In line with its obligations under the Energy Community and as part of Albania’s strategic objective to accede to the EU, the government has worked to align its legislation with the legal framework of the EU and aims to establish clear and transparent responsibilities for the implementation of the EU acquis.

The Law on Energy Performance of Buildings was prepared as a stand-alone law transposing the EU Energy Performance in Buildings Directive (EPBD). The legislation is in the force since January 2021. The legislation includes the requirements under the recast Directive in this respect, that:

- New buildings occupied and owned by public authorities must meet the Nearly Zero Energy Buildings (NZEB) definition after 31 December 2018.
- For buildings whose total useful floor area exceeds 250 m² and which are occupied and owned by a public authority and are frequently visited by the public, an energy performance certificate must be displayed in a prominent place clearly visible to the public.

The Law also lays out the basis for development of Minimum Performance Requirements of Building (approved by the Albanian Council of Ministers Decision Nr. 537 dated 8/7/2020) which are designated for different categories of buildings, such as renovation, new building, technical systems to be installed for heating and cooling, etc. The main sectors of applications are as follows:

- all new buildings and new building units during all phases of construction, including design;
- existing buildings and units of existing buildings when undergoing significant renovation or when adding/expanding, including design;
- individual building elements, which are part of the building envelope and which have a significant impact on the energy performance of the building when they are replaced or added to the building;
- air infiltrations in the building;
- technical systems of new buildings and existing buildings (in case a new system is installed or replaced) regarding their energy performance, including proper installation, installation of their control systems and automation in order to increase efficiency.

The following are the secondary legal acts related to EE in the Albanian Building Stock (including the residential, service (public and private) and industrial sectors:

- “National Methodology for Calculating Energy Performance in Buildings” approved by DCM no. 1094, dated 24/12/2020.
- Decision no. 537, dated 8/7/2020 on “Minimum Energy Performance Requirements of Buildings” - which imposes minimum energy performance requirements for all new buildings / newly renovated buildings and sets out standards for Nearly-zero Energy Buildings
- Decision no. 256, dated 27/3/2020 "On the Approval of the Methodology for Calculating the Optimal Cost Levels for the Minimum Energy Performance Requirements of Buildings, Units and Elements of Buildings".
- Decision no. 958, dated 2/12/2020 on "Approval of procedures and conditions for certification of energy performance of buildings and the model and content of conditions for registration of Energy Performance Certificate of buildings".
- Decision no. 934, dated 25/11/2020 on "Approval of Criteria and Procedures for the Manner of Selection and Quantity of Certificates to be Verified, as well as the Process of Supervision of Energy Performance Certificates in Buildings".

Guidelines and best practices for micro, small and medium enterprises in Albania in delivering energy-efficient products and in providing renewable energy equipment

- Order no. 5 dated 12/01/2021 on "Regulation of the Energy Audit Format and Energy Auditor Payment".

The AEE has organized successfully up to now 3 test sessions and has certified 65 Energy Auditors. This is a good number to serve for buildings, industries and municipalities, which own a large number of public buildings. Law 107/2014 "On Urban Planning and Development" is also an important basic law that regulates the activity and procedures for territorial planning and the process of the land development. There are different types of buildings (and elements of buildings) that are required to achieve a level of energy efficiency performance:

- all new buildings during all phases of design and construction;
- existing buildings, subject to a major renovation or expansion;
- replacement of special parts or elements of the building which have a significant impact on the energy performance of the integral building;
- replacement of technical systems and equipment's in the building.

The legal framework (see Chapter 2 for more) defines different requirements for the different nature of buildings. Therefore, buildings are categorized as per typology and function:

- **Residential building stock first category:** detached residential buildings with one family, including villas, attached buildings and / or detached houses with terraces;
- **Residential building stock second category:** apartment blocks, including residential buildings with three or more apartments and blocks built by social welfare institutions;
- **Non-residential public building stock first category:** offices, including libraries, research buildings and museums;
- **Non-residential public building stock second category:** education buildings, schools, universities, kindergartens, educational institutions, dormitories, courts, prisons and accommodation centres;
- **Non-residential third category:** hospitals, health care buildings, rehabilitation buildings and health care institutions;
- **Non-residential fourth category:** hotels and restaurants, business buildings, service buildings;
- **Non-residential fifth category:** service buildings, wholesale or retail trade activities buildings, entertainment, commercial buildings, industrial buildings and station / terminal buildings;
- **Non-residential sixth category:** sports facilities, indoor facilities;

The legal framework defines the technical conditions that all above mentioned building categories need to fulfil in order to comply with the minimum energy performance requirements. The conditions are monitored and measured and should result in specific values of the following parameters:

- **"U Value, or specific value of the total heat transfer coefficient [W/(m²K)]"**, the total specific heat loss through a homogeneous element (wall, window, roof, terrace, front door and floor of grounded).
- **"Total energy demand modelled for the building (kWh/m²/yr)"**, the amount in kWh of equivalent energy given, which will be needed to meet the following energy services (space heating, space cooling, water heating and lighting) by meeting the comfort condition over a year through the use of technical systems of the building to control the indoor climate for heating, cooling, for heating sanitary water and lighting equipment.

In all **new construction** for above-mentioned building categories, the U value should not exceed:

- external walls $U = 0.38$ (W / m²K)
- roof (sloping or terrace) $U = 0.35$ (W / m²K)
- loft $U = 0.38$ (W / m²K)
- ground floor $U = 0.5$ (W / m²K)
- glass (windows) $U = 2.00$ (W / m²K)

In all above-mentioned building categories undergoing **a significant reconstruction process**, the U value should not exceed. Building envelope heat losses (including walls, windows, outside doors, roof and ground floor) of existing buildings and units of existing buildings values below:

- external walls $U = 0.40$ (W / m²K)
- roof (sloping or terrace) $U = 0.35$ (W / m²K)
- loft $U = 0.45$ (W / m²K)
- ground floor $U = 0.5$ (W / m²K)
- glass (windows) $U = 2.20$ (W / m²K)

The legal framework also determines the minimum energy performance requirements of the equipment and the technical systems of the building. All technical systems for new residential and non-residential buildings, as well as their individual dwelling and commercial units ("units") need to be audited and approved based on the design engineering drawings to issue the Temporary Certificate of Energy Performance in Building, in accordance with the minimum indicative energy efficiency standards.