

### Republika e Kosovës Republika Kosova-Republic of Kosovo

Qeveria –Vlada-Government

### MINISTRIA E EKONOMISË DHE AMBIENTIT MINISTARSTVO EKONOMIJE I ŽIVOTNE SREDINE MINISTRY OF ECONOMY AND ENVIROMENT

# 4th RENEWABLE ENERGY PROGRESS REPORT OF THE REPUBLIC OF KOSOVO 2018-2019

According to the Renewable Energy Directive 2009/28/EC as adapted by the Ministerial Council Decision 2012/04/MC-EnC of the Energy Community

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#### I. ABBREVIATIONS

DSO Distribution System Operator

EC European Commission ECT Energy Community Treaty

EnC Energy Community
FIT Feed-in Tariff
HPP Hydro Power Plant

KOSTT Kosovo Transmission System and Market Operator

MED Ministry of Economic Development

REF Renewable Energy Fund

REFIT Renewable Energy Feed-in Tariff

RES Renewable Energy Source
TSO Transmission System Operator

#### II. INTRODUCTION

The Fourth Renewable Energy Progress Report of the Republic of Kosovo has been prepared for the Energy Community Secretariat. Article 15 of the Ministerial Council Decision 2012/04/MC-EnC requires Contracting Parties, including Kosovo, to submit a report, each two years, to the Energy Community Secretariat on progress in the promotion and use of renewable energy sources. The content of this reports refers to specification as defined in Article 22 of the Directive 2009/28/EC.

Renewable Energy Progress Reports serve for monitoring of the overall renewable energy policy developments and compliance with the measures set out in the Directive 2009/28/EC and the National Renewable Energy Action Plans of Kosovo as well as of other Contracting Parties. The data included in these reports will also serve to measure the impacts referred to in the Article 23 of the Directive 2009/28/EC.

#### III. RES POLICY IN KOSOVO

Renewable Energy Sources (RES) represent an important energy source available in Kosovo, with a potential that is still untapped sufficiently. The use of such sources for energy production represents a long term objective for implementation of three objectives of energy policies of the country, such as: support for the overall economic development; increase of the security of energy supply and protection of environment.

The energy sector laws, especially the Law on Energy, creates a framework for renewable energy support and utilization, including specification of annual and long-term targets for energy generation from RES. With the view in supporting and promoting the use of Renewable Energy Sources, the Ministry of Economic Development drafted a ten-year action plan for RES, as a policy document for this important energy sector. In line with the legal obligations, and those deriving from the Energy Community Treaty (ECT), the MED has determined renewable energy targets for period covering 2011-2020, by taking into consideration the opportunities and potentials of Renewable Energy Sources available in Kosovo.

In order to meet the renewable energy targets, the Energy Regulatory Office issues special regulation to determine the level of necessary energy capacities, as well as other requirements and procedures for acceptance of the support scheme, the rights and obligations of power producers from renewable energy for which the certificate of origin was issued and accepted under the support scheme, including the rights and obligations of the public supplier in relation to electric energy for which certificate of origin was issued, rights and obligations of KOSTT, financing of the support scheme, integration of electric energy produced from renewable energy sources into the electric energy system

#### IV. RES PROGRESS REPORT ACCORDING TO ENERGY COMMUNITY MODEL REPORT

The information included in this chapter is structured according to the Model Report of the Energy Community, and questions and tables provided in the Model Report as per Article 22 of the Directive 2009/28/EC.

## 1. Sectorial and overall shares and actual consumption of energy from renewable sources in 2016 and 2017

Reference: Article 22 (1) a of Directive 2009/28/EC

The data for the overall share of renewables in the energy consumption of Kosovo can be found in the table below.

Table 1: The sectorial (electricity, heating and cooling, and transport) and overall shares of energy from renewable sources<sup>1</sup>

	2019	2018	2017	2016
RES-H&C <sup>2</sup> (%)	54.55%	56.74%	50.53%	51.79%
RES-E <sup>3</sup> (%)	5.15%	4.23%	3.62%	3.97%
RES-T <sup>4</sup> (%)	0%	0%	0.0%	0.0%
Overall RES share <sup>5</sup> (%)	25.69%	24.62%	23.08%	24.47%
Of which from cooperation mechanism <sup>6</sup> (%)	0	0	0	0
Surplus for cooperation mechanism <sup>7</sup> (%)	0	0	0	0

Source of data:

Eurostat, Shares Summary Results 2019, https://ec.europa.eu/eurostat/web/energy/data/shares, December 20, 2020

The share of RES in the overall energy mix of Kosovo is largely determined by the use fuelwood for heating in households.

<sup>&</sup>lt;sup>1</sup> Facilitates comparison with Table 3 and Table 4a of the NREAPs.

<sup>&</sup>lt;sup>2</sup> Share of renewable energy in heating and cooling: gross final consumption of energy from renewable sources for heating and cooling (as defined in Articles 5(1)b) and 5(4) of Directive 2009/28/EC divided by gross final consumption of energy for heating and cooling. The same methodology as in Table 3 of NREAPs applies.

<sup>&</sup>lt;sup>3</sup> Share of renewable energy in electricity: gross final consumption of electricity from renewable sources for electricity (as defined in Articles 5(1)a) and 5(3) of Directive 2009/28/EC divided by total gross final consumption of electricity. The same methodology as in Table 3 of NREAPs applies.

<sup>&</sup>lt;sup>4</sup> Share of renewable energy in transport: final energy from renewable sources consumed in transport (cf. Article 5(1)c) and 5(5)of Directive 2009/28/EC divided by the consumption in transport of 1) petrol; 2) diesel; 3) biofuels used in road and rail transport and 4) electricity in land transport (as reflected in row 3 of Table 1). The same methodology as in Table 3 of NREAPs applies.

<sup>&</sup>lt;sup>5</sup> Share of renewable energy in gross final energy consumption. The same methodology as in Table 3 of NREAPs applies.

<sup>&</sup>lt;sup>6</sup> In percentage point of overall RES share.

<sup>&</sup>lt;sup>7</sup> In percentage point of overall RES share.

Table 1a: Renewable energy contribution of each sector to final energy consumption (ktoe)<sup>8</sup>

	2019	2018
(A) Gross final consumption of RES for	375.2	377.5
heating and cooling		
(B) Gross final consumption of	28.2	22.1
electricity from RES		
(C) Gross final consumption of energy	0	0
from RES in transport		
(D) Gross total RES consumption <sup>9</sup>	403.4	399.6
(E) Transfer of RES to other	0	0
Contracting Parties or Member States		
(F) Transfer of RES from other	0	0
Contracting Parties and 3rd countries		
(G) RES consumption adjusted for	403.4	399.6
target (D)-(E)+(F)		

Source of data:

Shares Summary Results 2019, https://ec.europa.eu/eurostat/web/energy/data/shares, December 20, 2020

The contribution of renewable energy to the final energy consumption has, in absolute terms, grown slightly between the reporting years. The highest share (almost 95% in 2018) in renewable energy consumption has fuelwood consumption for heating in households. The value of fuelwood consumption has the highest uncertainty, since the statistics is based on estimates. Values of electricity generation from renewable energy sources is based on calibrated electricity metering used for invoicing.

There are no transfers between Kosovo and other Energy Community Contracting Parties, nor EU member states. This is not yet relevant for Kosovo.

<sup>&</sup>lt;sup>8</sup> Facilitates comparison with Table 4a of the NREAPs

<sup>&</sup>lt;sup>9</sup>According to Art. 5(1)of Directive 2009/28/EC gas, electricity and hydrogen from renewable energy sources shall only be considered once. No double counting is allowed.

Table 1.b: Total actual contribution (installed capacity, gross electricity generation) from each renewable energy technology in Kosovo to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in electricity 10

	<b>20</b> [based on ERO ar			nnual report 2018]
	MW	GWh	MW	GWh
Hydro <sup>11</sup> :	92.08	212.92	78.09	271.47
non pumped	92.08	212.92	78.09	271.47
<1MW	0.95	1.20	0.95	1.79
1MW-10 MW	56.13	128.84	42.14	171.48
>10MW	35	82.89	35	98.20
pumped	0	0	0	0
mixed <sup>12</sup>	0	0	0	0
Geothermal	0	0	0	0
Solar:	14.29	10.48	10.04	2.03
photovoltaic	10.1	10.48	6.7	2.03
concentrated solar power	0	0	0	0
Prosumers (PV) <sup>13</sup>	0.5	NA	0.25	NA
RES in agricultural farms (PV)14	3.69	NA	3.09	NA
Tide, wave, ocean	0	0	0	0
Wind:	33.75	90.65	33.75	29.75
onshore	33.75	90.65	33.75	29.75
offshore	0	0	0	0
Biomass 15:	0	0	0	0
solid biomass	0	0	0	0
biogas	0	0	0	0
bioliquids	0	0	0	0
TOTAL	140.12	314.05	121.88	303.25
of which in CHP	0	0	0	0

*Note: NA – data not available* 

Source of 2018 and 2019 data: Annual Report 2018 and Raporti Vjetor 2019 (Annual Report 2019 in Albanian original), Energy Regulatory Office, Republic of Kosovo, tables 6.7 and 6.8, page 78 (Annual Report 2018), and page 81(Raporti Vjetor 2019).

Renewable Energy Use in the Agriculture Sector: 2014-2019 (Evaluation), Ministry of Agriculture, Forestry and Rural Development, Rural Development Policy Department, Monitoring, Evaluation and Reporting Division, December 2020, Response for SKE.xls – unpublished.

<sup>13</sup> Prosumers as per Rule #10/2017 on Support Scheme for Renewable Energy Sources, Generators, Energy Regulatory Office, Chapter V – Support Scheme for Self-Consumption Generators, electricity generation from renewables is intended for own consumption only and it is subject to net metering. Generators are not compensated for outstanding positive balance. Electricity generation is not reported, and thus not shown in tables 1, 1a, and 1b.

Source: Renewable Energy Use in the Agriculture Sector: 2014-2019 (Evaluation), Ministry of Agriculture, Forestry and Rural Development, Rural Development Policy Department, Monitoring, Evaluation and Reporting Division, December 2020

<sup>&</sup>lt;sup>10</sup> Facilitates comparison with Table 10a of the NREAPs.

<sup>&</sup>lt;sup>11</sup> Normalised in accordance with Directive 2009/28/EC and Eurostat methodology.

<sup>&</sup>lt;sup>17</sup> Annual report ERO 2016 p 59 table 5.2

<sup>&</sup>lt;sup>14</sup> PV installations in agricultural farms with 60% grant support from the Rural Development Program of the Ministry of Agriculture, Forestry and Regional Development are intended for own consumption only. Electricity generation is not reported, and thus not shown in tables 1, 1a, and 1b.

<sup>&</sup>lt;sup>15</sup> Take into account only those complying with applicable sustainability criteria, cf. Article 5(1) of Directive 2009/28/EC last subparagraph.

In 2018, a new 32.4 MW wind power plant Kitka was put into operation, as well as two 3 MW PV power plants.

In 2019, additional two hydropower plants Brezovica and Orqusha with an installed capacity of 2.1 MW and 4 MW were put into operation, as well as additional wind power capacity of 1.35 MW, and two PV plants with a capacity of 0.4 MW $_p$  and 3 MW $_p$ .

*Table 1c*: Total actual contribution (final energy consumption<sup>16</sup>) from each renewable energy technology in Kosovo to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in heating and cooling (ktoe)<sup>17</sup>

	2019	2018	2017	2016
Geothermal (excluding low temperature geothermal heat in heat pump applications)	0	0	0	0
Solar	1.34	0.44	0.4218	0.39 <sup>19</sup>
Biomass <sup>20</sup> :	361.03	370.16		
solid biomass	361.03	370.16	365.16 <sup>21</sup>	366.50 <sup>22</sup>
biogas			0	0
bioliquids	0	0	0	0
Renewable energy from heat pumps: - of which aerothermal - of which geothermal - of which hydrothermal	0	0	0	0
TOTAL	362.37	370.60	365.58	366.89
Of which DH <sup>23</sup>	0	0	0	0
Of which biomass in households <sup>24</sup>	331.11	339.48	334.89 <sup>25</sup>	337.95

Source of 2018 and 2019 data: Energy Balance in Kosovo, 2019, <a href="https://ask.rks-gov.net/en/kosovo-agency-of-statistics/add-news/energy-balance-in-kosovo-2019">https://ask.rks-gov.net/en/kosovo-agency-of-statistics/add-news/energy-balance-in-kosovo-2019</a>, Askdata platform, <a href="https://askdata.rks-gov.net/PXWeb/pxweb/en/askdata/askdata\_05%20Energy/?rxid=ad787284-363a-44a5-bb3d-0f067afa36b7">https://askdata.rks-gov.net/en/kosovo-2019</a>, Askdata platform, <a href="https://askdata.rks-gov.net/PXWeb/pxweb/en/askdata/askdata\_05%20Energy/?rxid=ad787284-363a-44a5-bb3d-0f067afa36b7">https://askdata.rks-gov.net/en/kosovo-2019</a>, Askdata platform, <a href="https://askdata.rks-gov.net/PXWeb/pxweb/en/askdata/askdata\_05%20Energy/?rxid=ad787284-363a-44a5-bb3d-0f067afa36b7</a>, Yearly Indicators.

 $^{20}$  Take into account only those complying with applicable sustainability criteria, cf. Article 5(1) last subparagraph of Directive 2009/28/EC.

<sup>&</sup>lt;sup>16</sup> Direct use and district heat as defined in Article 5.4 of Directive 2009/28/EC.

<sup>&</sup>lt;sup>17</sup> Facilitates comparison with Table 11 of the NREAPs.

<sup>&</sup>lt;sup>18</sup> Balanca Vjetore E Energjisë Në Republikën E Kosovës Për Vitin 2017 (Albanian), Kosovo Agency of Statistics (KAS), June 2018, http://ask.rks-gov.net

<sup>19</sup> Idem

<sup>&</sup>lt;sup>21</sup> Balanca Vjetore E Energjisë Në Republikën E Kosovës Për Vitin 2017 (Albanian), Kosovo Agency of Statistics (KAS), June 2018, http://ask.rks-gov.net

<sup>&</sup>lt;sup>22</sup> Balanca Vjetore E Energjisë Në Republikën E Kosovës Për Vitin 2017 (Albanian), Kosovo Agency of Statistics (KAS), June 2018, http://ask.rks-gov.net

<sup>&</sup>lt;sup>23</sup> District heating and / or cooling from total renewable heating and cooling consumption (RES- DH).

<sup>&</sup>lt;sup>24</sup> From the total renewable heating and cooling consumption.

<sup>&</sup>lt;sup>27</sup>Wood biomass sector in Kosovo-WISDOM, Pristina 2015

<sup>&</sup>lt;sup>25</sup> Balanca Vjetore E Energjisë Në Republikën E Kosovës Për Vitin 2017 (Albanian), Kosovo Agency of Statistics (KAS), June 2018, http://ask.rks-gov.net

Table 1d: Total actual contribution from each renewable energy technology in Kosovo to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in the transport sector (ktoe)<sup>26</sup>,<sup>27</sup>

	2019	2018
Digothanal/hig ETDE	0	0
Bioethanol/ bio-ETBE	U	U
Of which Biofuels <sup>28</sup> Article 21.2	0	0
Of which imported <sup>29</sup>	0	0
Biodiesel	0	0
Of which Biofuels <sup>30</sup> Article 21.2	0	0
Of which imported <sup>31</sup>	0	0
Hydrogen from renewables	0	0
Renewable electricity	0	0
Of which road transport	0	0
Of which non-road transport	0	0
Others (as biogas, vegetable oils, etc.)	0	0
<ul><li>please specify</li></ul>		
Of which Biofuels <sup>32</sup> Article 21.2	0	0
TOTAL	0	0

For now, there is no special support for biofuels meeting the criteria referred to in Article 22(1) of the Directive.

The details regarding obligation of biofuel usage and meeting of sustainability criteria will be regulated through and Administrative Instruction on biofuels and bioliquid use which will be in place after the Law on Trade with Petroleum Products and Renewable Fuels passed in Parliament.

Based on this, the Ministry of Trade & Industry will elaborate secondary legislation following EU RES and Biofuels directives.

<sup>&</sup>lt;sup>26</sup> For biofuels take into account only those compliant with the sustainability criteria, cf. Article 5(1) last subparagraph.

<sup>&</sup>lt;sup>27</sup> Facilitates comparison with Table 12 of the NREAPs.

<sup>&</sup>lt;sup>28</sup> Biofuels that are included in Article 21(2) of Directive 2009/28/EC.

<sup>&</sup>lt;sup>29</sup> From the whole amount of bioethanol / bio-ETBE.

<sup>&</sup>lt;sup>30</sup> Biofuels that are included in Article 21(2) of Directive 2009/28/EC.

<sup>&</sup>lt;sup>31</sup> From the whole amount of biodiesel.

<sup>&</sup>lt;sup>32</sup> Biofuels that are included in Article 21(2) of Directive 2009/28/EC.

## 2. Measures taken and/or planned at national level to promote the growth of energy from renewable sources

**Article** 22(1)a) of Directive 2009/28/EC)

**Table 2: Overview of all policies and measures** 

Name and mercure of			T1	T	C4411
Name and reference of the measure	Type of measure*	Expected result**	Targeted group and or activity***	Existing or planned****	Start and end dates of the measure
1. Law on Energy nr.05/L-081	Regulatory	Promotion, optimisation and use, including determination of annual and long-term goals of energy generation from such resources	Investors, end users, public administration,	Existing	13 July 2016- continue
2. Law on Electricity nr.05/L-085,	Regulatory	Creating Certificate of Origin for RE and cogeneration. Power certified to originate from RE is entitled to priority dispatch under the terms stated in the Grid Code and Market Rules. TSO and DSO are obliged to provide priority to electricity generated from RE power plants and co-generation	Investors, end users, public administration,	Existing	21 July 2016- continue
3. Law on Energy Regulatory nr.05/L-084, article 43	Regulatory	Establish specific procedures "for the authorization of construction of small decentralized and/or distributed generation". It is important for small size generators to have a specific regulation applicable to them, since such procedure will reduce the administrative burden for investment in small scale RE projects and make their procedures faster and easier. Therefore, the absence of such procedures is a barrier for small RE	Investors, end users, public administration,	Existing	14 July 2016- continue

		generators, which can be considered to be of high importance to them.			
Rule on Authorization Procedure for Construction of New Generation Capacities ("the Rule on Authorization")		Describes the procedure for authorization of power generation Projects. The authorization is a right issued by ERO that enables applicants "to commence with construction of generation capacities () within specified period Of time	Investors, planners,	Existing	November 2014 ,it has been revised latest 31 March 2017
Rule on support scheme (On Support of Generation of Electricity from Renewable Energy Sources	Regulatory	The Rule on Support Scheme aims at supporting the generation of electricity from renewable energy sources, in order to meet the set out Indicative Targets of Renewable Energy Sources.	Investors, planners	Existing	November 2014 it has been revised and restructured by March 2017
Decision on the Feed-in Tariffs for generation of electricity from Renewable Energy Sources,	Regulatory	Increased generation of electricity from RES, Increase of public interest in investment in RES	Investors, planners	Existing	19 May 2016- continue
Development of Renewable Energy FiT Scheme and Financial Model for Biomass	Regulatory	Increased generation of electricity from biomass, Increase of public interest in investment in biomass sector	Investors, planners	Planned	March 2019
Procedure for the authorization of construction of small	Regulatory	Increased generation of electricity from small decentralised PV system and the possibility to connect to the grid	Investors, planners	Existing	March 2017- countinue

decentralized and/or distributed generation.					
4. Establishment and functioning of One Stop Shop for RES	Institutional	Facilitate of the RES projects between information and coordination activities	The state central and local institutions; Private investors	Existing	April 2018- Continue
Law on energy performance	Regulatory	Increase of RES use in new buildings and building undergoing major renovation	Increase of RES use in new buildings and building undergoing major renovation	Investor, Installers	December 2016- continue
Regulation on Minimum energy performance in buildings	Regulatory	Increase of RES use in new buildings and building undergoing major renovation	Increase of RES use in new buildings and building undergoing major renovation	Investor, Installers	2018-countinue
Formation of clusters for increased use of biomass ( pellets) and solar	Financial support	Formation of clusters dealing with all aspects of producing pellets and deployment of project with solar energy	Producers of pellets, wood equipment producers, installers of solar panel and PV system	Private company	2014 –continue
RES promotional campaign	Soft measure	Stimulation of public interest on RES utilization	Consumers, generators, public		2012- continue
Agriculture and Rural Development Program- Grant support scheme for farmers	Financial support	Sustainability of the sector and work jointly to increase production, establish new processing lines and upgrade farm machineries and equipment, as well as work conditions at the farm level .	Farmers	Existing	2014-continue

Table 2, continued: non-governmental measures to promote the growth of energy from renewable sources

Name and reference	Type of	Expected result**	Targeted group	Existing or	Start and end dates of
of the measure	measure*		and or	planned****	the measure
			activity***		
Women Entrepreneurs	Financial	Support women in making necessary	Women Energy	Existing	2020-countinue
	support	investments in energy efficiency measures and	Entrepreneurs		
		modern equipment that will help them grow			
		their business and use green energy			
Customs exemption	Financial	Increased cost-benefit of RES projects,	Investors	Existing	2017-countinue
for components and		attracting investment			
equipment for RES					
use					
VAT exemptions for	Financial	Increased cost-benefit of RES projects,	Investors	Existing	2017-countinue
investments in RES		attracting investment			
Green Economy	Financial	Increase of RES capacity with private	SME companies,	Existing	2018-countinue
Financing Facility	support	consumers, SME companies	households		

<sup>\*</sup> Indicate if the measure is (predominantly) regulatory, financial or soft (i.e. information campaign).

<sup>\*\*</sup>Is the expected result behavioural change, installed capacity (MW; t/year), energy generated (ktoe)?

<sup>\*\*\*</sup>Who are the targeted persons: investors, end users, public administration, planners, architects, installers, etc? or what is the targeted activity / sector: biofuel production, energetic use of animal manure, etc)?

<sup>\*\*\*\*</sup> Does this measure replace or complement measures contained in Table 5 of the NREAP?

# 2.a The progress made in evaluating and improving administrative procedures to remove regulatory and non-regulatory barriers to the development of renewable energy

Reference: Article 22(1)e) of Directive 2009/28/EC).

In July 2016, the Kosovo parliament has approved updated energy laws which also include provisions to further facilitate the promotion of renewable energy sources in the energy mix:

#### Law on Energy nr.05/L-081:

- Article 16. Administrative procedures, regulations and codes for renewable energyrequires that simplified and less burdensome authorization procedures are established for smaller projects and for decentralized devices for producing energy from RE.
- Article 17, Promotion of Investments in the Energy Sector -establish a One Stop Shop for RES.
- Article 28, Right of Access to Property-ensures, for generation, transmission and distribution facilities, the right to access to the property through the right to servitude, right of use or other property rights in accordance with the provisions of the Law on Expropriation of Immovable Property.

#### Law on Energy Regulatory nr.05/L-084:

• Article 43 Authorization Procedure for Construction of New Capacity, also authorization of construction of small decentralized and/or distributed generation.

Based on these laws, secondary legislation has been revised (within 9 months from July 2016). The technical specification which must be met by renewable energy equipment and systems in order to benefit from support schemes are set on Rule on support scheme (On Support of Generation of Electricity from Renewable Energy Sources provides the legal basis and the steps to be undertaken. ERO informs the developer at the time of application whether there is still sufficient capacity uncovered in the target to allow for accommodating the new capacity. In this case, admission to the REFIT is granted automatically. The admission gets effective only when the project starts commercial operation. RE developers have asked for establishing the PPA already after authorization is finally approved to ease finance.

Since 2010, Energy Regulatory Office (ERO) applies The Rule on Authorization Procedure for Construction of new generation capacities (from RES). This Rule was amended in November 2014 and April 2017, applies to all RES technologies. The time limit for completion of RES projects is the same for all technologies. The period for construction of RES generator is 2 years and may be extended for another year. In extraordinary cases, the period for construction may be extended for additional 12 months. The Rule is designed in two stages.

Preliminary Authorization and Final Authorization. The time limits are set by a Rule and are as follows:

- After ERO receives and register application it review it and if it is not complete there are 60 days to be completed.
- When ERO considers application completed it has to decide within 90 days and to issues Decision on Preliminary Authorization.
- Within 1 year + 6 months extension applicant has to bring evidences in order to receive Final Authorization. There is a possibility for investor to apply directly for Final Authorization, but it has happened only once up to now.

There is no automatic authorization (permission). The process has to go as described above (two stages) and there is automatic entry into support scheme and it is stated (determined) in the Decision on Preliminary Authorization.

In order to improve the investment climate for RES projects, Ministry of Economic development has agreed to establish a One-Stop Shop (OSS) for RES.

Regulation (GRK) no. 05/2018 on One Stop Shop for Renewable Energy Sources, was approved on 38 meeting of the Government of the Republic of Kosovo with the decision No.10/38, date 29.03.2018;

The OSS will act as an 'information and coordinating bureau providing potential applicants and interested parties with up-to-date, clear information about how to apply, application requirements, timescales etc. Coordination will be harmonized across all responsible authorities so that it is presented as a cohesive process. Information should also assist developers in avoiding overlapping permitting procedures.

The latest progress is approval of The Law on Energy Performance of Buildings by Parliament. Following this legislation, the Ministry of Environmental and Spatial Planning. The regulation that is adopted to encourage the application of RES is the Regulation on Minimum Energy Performance in Buildings (MEPB 04-2018) and draft plan per increasing number of nZEB Buildings. This regulation is going to encourage local and regional administrative bodies to include heating and cooling from renewable energy sources in the planning of city infrastructure and to introduce minimum requirements of integrating RES in planning infrastructure. There are two projects in municipalities Pristina and Gjakova that will encourage the application of RES at local level.

Prefeasibility Solar Thermal Project ''Solar4Kosovo/ Big Solar Pristine'' which is organized by Public Enterprise "Termokos" JSC in Pristina, implementing partner.

The prefeasibility study "Solar 4 Kosovo / Big Solar Pristine" is financed jointly by the German Financial Cooperation with Republic of Kosovo through KFW and Renewable Development Energy in the Western Balkans Program (ReDEWeB) through European Bank for Reconstruction and Development EBRD.

European Commission is investing in the co-generation biomass fired district heating plant in Gjakova.Based on Feasibility Study and ESIA Fuel switching and system expansion/rehabilitation For District Heating in Gjakova is estimated the facilities within the new DH plant will consist of one 8 MW HOB and one 8 MW CHP running 100% on biomass. The HOB will serve to produce district heat, while CHP will produce both district heat and electrical power. The construction of this plant started in December 2019. Although the project was scheduled to be completed by September, many factors, including the large impact of the pandemic, have pushed the deadline.

2. b Measures in ensuring the transmission and distribution of electricity produced from renewable energy sources and in improving the framework or rules for bearing and sharing of costs related to grid connections and grid reinforcements.

**Reference**: Article 22(1)f) of Directive 2009/28/EC).

The Kosovo Transmission, System and Market Operator (KOSTT) has developed three documents which ensure RES connection aspects into Transmission Network:

- 1. Transmission Connection Charging Methodology<sup>33</sup>
- 2. Procedures for Connection to the Transmission Network<sup>34</sup>
- 3. Procedure for RES Generation Module Energization into Transmission Network<sup>35</sup>

These procedures and methodology are based on non-discriminatory principles (first comes first served). KOSTT in order to support RES integration has removed the maintenance fee (for New Transmission Assets build by Generator and owned by KOSTT). Based on Article 16, paragraph 1.44 of Law no.:05/L-085 on Electricity, KOSTT is obliged to give dispatching priority to generating installations using renewable energy sources based on transparent and non-discriminatory criteria.

Under PHLG decisions, KOSTT has create a working group and developed a draft version of harmonization of KOSTT's Grid Code (Connection Code) with EU Regulations: 2016/1388 (Demand Connection Code) and 2016/631 (Requirements for grid connection of Generators). Final version was approved by the Regulator on 15.10.2018 and is published at KOSTT's web page. Codes are under implementation

Those documents regulate the estimation of the costs of grid connection associated with generator (including RES) connection in transmission network. Also in the latest version of the Electricity Law, so called Market design and Market Rules were developed by KOSTT (the transmission system and market operator) and approved by ERO, providing dispatching priority to RES. According to the "Procedures for Connection to the Transmission network" and "Transmission Connection Charging Methodology" the time from submission of the Connection Application until signing of the Transmission Connection Agreement is like this:

#### Day 0

The applicant submits the Connection Application to the transmission network operator together with a proof of payment via mail or directly to the Archive Office of KOSTT, (if the application is submitted by post-mail, the counting of days begins when KOSTT accepts the application).

#### Days 1-30

KOSTT reviews and draws conclusions if the connection planned by the Connection Application is (or isn't) technically and economically possible and in accordance with the provisions of the Grid Code, meets the conditions and doesn't represent a problem for the safe operation of the transmission system. KOSTT, based on the analysis of the review, prepares

<sup>&</sup>lt;sup>33</sup>http://www.kostt.com/website/images/stories/dokumente/tjera/Transmission\_Connection\_Charging\_Methodology \_ver\_2.7.pdf

 $<sup>^{34}</sup>http://www.kostt.com/website/images/stories/dokumente/tjera/Procedures\_for\_Connection\_to\_the\_Transmission\_Network.pdf$ 

<sup>&</sup>lt;sup>35</sup> Communication with KOSTT, December 2020

and submits to the Applicant a notice of the possibility for connection to the Transmission Network, or lack thereof.

Days 31-90

KOSTT prepares a Connection Offer which it sends to the Applicant together with the draft Transmission Network Connection Agreement.

Days 91-120

The Applicant reviews the Connection Offer for the transmission network submitted by KOSTT, which can then be signed.

Days 121-150

The Applicant and KOSTT review/negotiate and sign the Transmission Network Connection Agreement.

It is dependent from the project complexity, but the maximum term for getting approval for connection is 150 days. Transmission grid is well developed and in regard with power flow, N-1 criterion voltage quality, system security and reliability can support connection of significant RES capacities to the transmission network. Based on RES potential, the most probable connection of the RES (usually wind and HPP) will be the 110 kV network.

Based on already signed agreement for connection with HPP and Wind Project the duration from date of application till the date of signed agreement between KOSTT and applicants, was 90 days.

For several plants generating electricity from renewable sources it is expected to be integrated soon in the electricity market. All licensed Parties for generating electricity from renewable energy sources will be subject to Market Rules.

Regarding the legislation there are no barriers for integration in the electricity market.

3. Support schemes and other measures currently in place that are applied to promote energy from renewable sources .... and report on any developments in the measures used with respect to those set out in your National Renewable Energy Action Plan.

**Reference**: Article 22(1)b) of Directive 2009/28/EC).

**Table 3: Support schemes for renewable energy** 

RES suppo	rt schemes 2018-2019	Per unit support	<b>Total (M⊕</b> * (2018 - 2019)
(sub) cated	ory of specific technology or fuel ]		(2010 2010)
Instrument	Obligation/quota (%)		
(provide	Penalty/Buy out option/ Buy out price		
data as	(€/unit)		
relevant)	Average certificate price		
	Tax exemption/refund		
	Investment subsidies (capital grants or loans) (€/unit)	50-60% grant on investment in small RES in agricultural farms €1,080/kW (estimated)	M€1.36 (2018 -2019)
	Production incentives		
	FiT small hydro power <1 MW/10 years FiT solar PV/12 years	€67.47/MWh €136.40/MWh (€85.5/MWh <sup>36</sup> )	M€0.2 (2018 -2019) M€1.7 (2018 -2019)
	FiT Wind/12 years	€85/MWh,	M€10.2 (2018 -2019)
	Biomass/10 years Feed-in premiums	€71.30 / MWh €3.44/7.8/MWh	- M€1.6
	Peed-in premiums PPA old state hydropower (price premium in 2018/2019 = purchase price - KEK purchase price)	(1-10 MW) €7.68/8.3/MWh (>10 MW)	M€ 1.6 (2018 -2019) M€ 1.4 (2018 -2019)
	Tendering		
Total annua sector	l estimated support in the electricity		M€ 8.23 (M€ 16.46 in 2018 -2019)
sector	al estimated support in the heating	-	
sector	l estimated support in the transport	-	indication of the

<sup>\*</sup> Quantification of energy supported by the per unit support gives an indication of the effectiveness of the support for each type of technology

Source: ERO Decision V\_810\_2016, http://ero-ks.org/2016/Vendimet/V\_810\_2016\_eng.pdf, Annual Report 2018, Raporti Vjetor 2019 (Annual Report 2019 in Albanian only), Energy Regulatory Office, Republic of Kosovo, www.ero-ks.org

The main support scheme is a feed-in tariff scheme for electricity produced from renewable sources – small hydro, wind, biomass and photovoltaic.

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<sup>&</sup>lt;sup>36</sup> ERO, Decision V-1204-2019, November 27, 2019, temporarily suspended by a court

Electricity generated from RES projects with capacities lower than specified maximum for each type of RES are eligible for the Feed-in Tariff support scheme, until the target installed capacity for each year is reached as per Energy Regulatory Office Decision. Feed-in tariffs vary for different technologies as follows:

- Hydro power (≤10 MW):
 - Wind energy (≤35 MW):
 - Electricity from solid biomass (≤14 MW)
 - Photovoltaic (≤3 MW)
 Euro 67.47 / MWh for 10 years;
 Euro 85 / MWh for 12 years;
 Euro 71.3 / MWh for 10 years;
 Euro 136.4 / MWh for 12 years.

In November 2019, the ERO decided to decrease the PV Feed-in Tariff to € 85.5/MWh, however this ERO Decision V-1204-2019 was temporarily suspended by a court.

The ERO Rule on Support Scheme provides the legal basis and the steps to be undertaken. ERO informs the developer at the time of application whether there is still sufficient capacity uncovered in the target to allow for accommodating the new capacity. In this case, admission to the REFIT scheme is granted automatically. The admission gets effective only when the project starts commercial operation. Any future changes of the Feed-in Tariff shall not affect the RES generators admitted already to the FiT Support Scheme.

ERO Decision V\_810\_2016 defines the maximum size of a single plant eligible for the FIT support as follows: 3 MW for PV, 14 MW for biomass, 35 MW for wind and 10 MW for hydro power. According to this Decision, the FIT support is applicable for new plants until annual revised RES targets are met. RES targets for 2020 per technology illustrates Table 4.

Table 4: 2020 targets for newly installed RES to be eligible for the FIT<sup>37</sup>

Renewable energy resource	Target by technology
Solar PV	10 MW
Biomass	14 MW
Wind energy	150 MW
New small HPP	240 MW
Total	414 MW

The new ERO Decision V-1204-2019 of 2019, temporarily suspended by a court, increases the PV target to 20 MW<sup>38</sup>.

In addition to the feed-in tariff, a grant support scheme for renewable energy sources implemented in agricultural farms was introduced in 2014 in the annual Rural Development Programme of the Ministry of Agriculture, Forestry and Rural Development (MAFRD). After successful implementation of renewable energy sources, farmers are reimbursed 50-60% of the total investment costs within this scheme.

Between 2014 and 2019, 1 073 agricultural farms have installed renewable energy sources (mainly photovoltaics) with a total estimated capacity of 3.69 MW<sup>39</sup>. All electricity produced in these renewable energy sources is intended for own consumption. The producer is not compensated for potential excess electricity production fed into the grid. Electricity production in these sources is reported by the Energy Regulatory Office.

<sup>38</sup> ERO, Decision V-1204-2019, http://ero-ks.org/2019/Vendimet/V\_1204\_2019\_eng.pdf

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<sup>&</sup>lt;sup>37</sup> ERO, Decision V\_810\_2016, http://ero-ks.org/2016/Vendimet/V\_810\_2016\_eng.pdf

<sup>&</sup>lt;sup>39</sup> Renewable Energy Use in the Agriculture Sector: 2014-2019 (Evaluation), Ministry of Agriculture, Forestry and Rural Development, Rural Development Policy Department, Monitoring, Evaluation and Reporting Division, December 2020

#### 3.1. Information on how supported electricity is allocated to final customers

**Reference**: Article 22(1)b) of Directive 2009/28/EC), for purposes of Article 3 (6) of Directive 2003/54/EC.

Based on the Law on Electricity nr. 05/L-085, Article 8, Electricity generation from renewable energy sources and cogeneration:

- 1. Compensation, payments of energy generated from renewable sources is done according to compensation fees for electricity generated from renewable energy sources, collected by the Market Operator by the end customer supplier, with the exception of the quantity for which the producers have signed a contract for sale under the provisions of this law.
- 2. The Regulatory shall make arrangements to compensate the additional costs to the suppliers from purchasing electricity under the terms of this article by means of a specific charge on the services of the system operators, which shall be applied in a transparent and non-discriminatory manner to all suppliers connected to the respective system, proportionate to the purchased energy from renewable sources.
- 3. In compliance with the Law on Energy Regulator, the Regulatory shall draft the Methodology of tariffs to be paid by suppliers for electricity generated from renewable energy sources. This Methodology shall include provisions for compensation of suppliers for the additional cost of purchasing electricity generated from renewable energy sources.

The Market Operator is responsible for conclusion of sale and purchase agreements for the obligatory portion of electricity generated from renewable energy sources and cogeneration and collection of payments for supporting electricity generation from renewable energy sources and cogeneration, from all suppliers, including suppliers with public service obligations.

Since the market has only one supplier, compensation payment of electricity produced from renewable energy sources becomes compensation fees for electricity production from these sources, which collects the supplier with the exception of the amount for which manufacturers have connected contract for sale, under the provisions of this law. According to the Law on Electricity, energy enterprises generating electricity from renewable energy resources, or through means of cogeneration, shall be entitled to certificates of origin, issued by the Regulator, on the basis of which they shall sell the electricity generated at regulated conditions.

Regulated mechanisms for supporting electricity generated from renewable energy sources are defined in the Rule on Support Scheme for RES which is being implemented since 2017. According to this rule, RES Producers admitted to the Support Scheme have the right to sell their electricity with a Feed-in Tariff price, while RES Generating Facilities which are not part of the Support Scheme may sell their electricity under a Regulated Framework or under market-based unregulated conditions. RES producers admitted to the Support Scheme and who wish to operate under the Regulated Framework have the right to sell their electricity to the Market Operator through a Power Purchase Agreement. The TSO grants dispatching priority to electricity produced by RES with respect to their Certificates of Origin. The TSO and the DSO give priority in examining the application for connection submitted by generating units producing electricity from RES. RES producers admitted to the Support Scheme with an installed capacity equal to or higher than 500 kW are responsible for 25% of their total imbalance costs.

Renewable Energy Fund (REF) is financed through a collection of a Renewable Energy Charge applicable at a transmission level to all suppliers of electricity in Kosovo. REF finances the costs associated with:

- The difference between the Reference Price and the Feed-in Tariff;
- The compensation for the imbalance costs;
- Costs incurred by Market Operator in managing and operating the REF and any other costs necessary, if so decided by ERO

# 4. Information on how the support schemes have been structured to take into account RES applications that give additional benefits

Reference: Article 22 (1)c of Directive 2009/28/EC).

Support schemes for the promotion of renewable energy sources have so far been structured primarily to enable production and provide grid access for renewable electricity and heating, not for secondary purposes or benefits.

5. Information on the functioning of the system of guarantees of origin for electricity and heating and cooling from RES ...and the measures taken to ensure reliability and protection against fraud of the system.

**Reference**: Article 22(1)d of Directive 2009/28/EC).

The Kosovo Energy Regulatory Office (ERO) has developed and approved the Rule on Guarantees of Origin for electricity produced from RE, waste incineration and combined heat & power plants on 29 December 2010. A framework for Guarantees of Origin is planned to be further developed and implemented.

**The Law on Electricity No. 05/L-085** adopted by the Parliament is dealing with Certificates of Origin for RE and cogeneration (Article 8 of the Law on Electricity). Power certified to originate from RE is entitled to a priority dispatch under the terms stated in the Grid Code and Market Rules. TSO and DSO are obliged to provide priority to electricity generated from RE power plants and co-generation.

Public electricity suppliers are obliged to purchase the whole amount of RE electricity generated at regulated tariffs, determined by ERO through a methodology that takes into account compensation for the public supplier for the additional cost of purchasing electricity from RE. ERO adopted the Rule for Establishment of a System of Certificate of Origin for Electricity generated from RE, waste incineration plants and combined-heat-power plants on 29 December 2010. The register of Certificates is still not in place. Up to now ERO has not received any application for issuance of Certificate of Origin.

As long as the REFIT scheme, which provides priority dispatch anyway, evokes the targeted amounts of RE, the absence of the system of Certificates of Origin does not pose a barrier for RE deployment. However, once these targets are fulfilled or the REFIT is not delivering results, a workable system of Certificate of Origins would be an important means to promote RE. A lack of such system would thus not create a barrier but would be a missed opportunity to promote RE. The lack of a system of Certificate of Origin may also impede investors' confidence that Kosovo is following the rules of the Energy Community and thus constitute a minor barrier.

# 6. Developments in 2018 and 2019 in the availability and use of biomass resources for energy purposes.

Reference: Article 22(1)g) of Directive 2009/28/EC).

Table 5: Biomass supply for energy use

	Amount of domestic raw material (*)		energy in domestic raw material (ktoe)		Amou nt of import ed raw materi al from EU (*)		Primary energy in amount of imported raw material from EU (ktoe)		Amount of imported raw material from non EU(*)		Primary energy in amount of imported raw material from non EU (ktoe)	
	<b>2019</b> Year	<b>2018</b> Year	<b>2019</b> Year	<b>2018</b> <i>Year</i>	20 19 Ye ar	20 18 Ye ar	<b>2019</b> Year	<b>2018</b> Year	<b>2019</b> <i>Year</i>	<b>2018</b> Year	<b>2019</b> Year	<b>2018</b> <i>Year</i>
Riomass s	unnly for h	L Postina sna	l electri	city:	aı	aı						
Biomass s  Direct supply of wood biomass from forests and other wooded land energy generation (fellings etc.)**  Indirect supply of wood biomass (residues and co- products from wood industry	181,699.6 m <sup>3 40</sup>	183,481.3 m <sup>3</sup>	26.9	27.1								
etc.)** Energy crops (grasses, etc.) and short rotation trees Agricultural by-products / processed residues and fishery by- products ** Biomass from waste (municipal, industrial etc.) ** Others												
(please specify)	supply for	transport:										

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<sup>&</sup>lt;sup>40</sup> Source: Ministry of Agriculture, Forestry and Rural Development, MAFRD communication in December 2020. Note that the values of direct supply of wood biomass from forests and other wooded land for energy generation are significantly lower than final energy consumption of solid biomass for heating in Table 1c. The official statistics available on raw wood for energy covers only a fraction of actual consumption.

Common arable crops for biofuels						
Energy						
crops (grasses,etc. ) and short rotation						
trees for biofuels						
Others						

The forests of Kosovo are an important national resource for renewable sources of energy as well. As this resource is currently very important for reaching the national RES objective, we elaborate here the estimation of fuelwood consumption.

Of Kosovo's official land area, ca. 45% (481 000 ha) is covered by forests. A total of 180 800 ha (38 percent) of this is privately owned, and 209 200 ha (62 percent) is public forest.

According to the NFI data, the growing stock of trees with diameter at breast height that is greater or equal to 7 cm, stands at 40.5 million m3, which is approximately the same size as ten years ago. Annual increment over bark (NFI 2013) of trees with diameter (dbh) greater or equal to 7 cm is estimated at 1.55 million m3 – 1.32 million for the broadleaves category and 0.23 million for coniferous trees. In comparison, the average growing stock in Kosovo is 84 m3 per ha. The average increment in Kosovo is 3.2 m3 per ha. Within the NFI project, the maximum long-term annual harvest, strictly from a productivity point of view, is approximately 1.45 million m3.

The <u>net</u> maximum long-term annual harvest level for Kosovo is determined at 1.2 million m3. It is recommended that this estimate be further reduced due to areas unavailable for wood supply, including National Parks (NFI2013). The actual cut in the forests was estimated to affect 60 percent of the forest area from the NFI project. Consequently, the real annual harvest was roughly estimated to be 1.6 million m3 annually. Only a small fraction of the harvesting (7 percent) was carried out in compliance with the current forest legislation (i.e. illegal).

The data about the biomass resources used in the reporting period are shown in Table 5. Wood biomass, supplied both directly and indirectly, is mainly used in heating, in the form of 'firewood'.

<sup>\*</sup> Amount of raw material if possible in m3 for biomass from forestry and in tonnes for biomass from agriculture and fishery and biomass from waste

<sup>\*\*</sup> The definition of this biomass category should be understood in line with table 7 of part 4.6.1 of Commission Decision C (2009) 5174 final establishing a template for National Renewable Energy Action Plans under Directive 2009/28/EC

<sup>\*\*\*</sup>This data are taken from Kosovo Forest Agency, the data are official based on registration for cutting of wood from forests for energy supply. Mismatch between direct supplies of wood biomass from forests with biomass consumption is the result that 40 % of forests public and 30% of private forests are subject to uncontrolled and illegal activities of use

Table 5a. Used area of agricultural land\*

Use of agricultural land	Area (ha)
Arable land - fields	188.364,69
- From which vegetables in the open field (first crop)	8.319,02
	517,65
- From which vegetables in greenhouses (first crop)	1.122,13
Garden	9.244,29
Plantations of fruits	3.367,32
Plantations of vineyards <sup>2</sup>	110,79
Seedlings	217.931,84
Total used area of agricultural land	420.141,05

According to the data, total utilized area of agricultural land are 420 141.05 hectares, most of them belong to meadows and pastures (including common land) 217 931.84 ha or (51.9%), while the arable land is188 364.69 ha or (44.8%), of which open field vegetables and greenhouse vegetables are included in this category of land.

The Kosovo Agency for Statistics has not (yet) reported energy crops or agricultural crops specifically produced for energy purposes (incl. for biogas purposes, productions of pellets or for biofuels).

It cannot be excluded that smaller portions of the data presented in the table are used for local energy purposes.

<sup>\*</sup> Agriculture Holdings Survey, 2019

Table 5b: Crops on a rable land - fields, production and yield  $^{\!*}$ 

Crops	Area (ha)	Production / output	Yield (t/ha)	
Cereals for grain	124.198,96	•		
Wheat	80.273,26	284.999,44	3,6	
Corn	39.440,97	163.930,09	4,2	
Barley and barley beer	1.954,30	5.158,61	2,6	
	419,83	1.010,48	2,4	
Rye	1.974,80	3.954,02	2,0	
Dat	135,80	351,64	2,6	
Other grain cereals	2.997,00			
Legumes for grain	2.887,53	6.712,95	2,3	
dry) Beans	67,00	168,62	2,5	
Grain peas	42,47 <b>401,92</b>	138,71 <b>575,95</b>	3,3 <b>1,4</b>	
Other legumes	3.688,19	73.815,60	20,0	
ndustrial	8.836,68	,	.,.	
	37.496,72			
crops Potatos	18.293,11	84.256,63	4,6	
Vegetables (open field and greenhouses)	900,66	3.446,08	3,8	
Forage crops	9.253,16	31.689,20	3,4	
Lucerne	660,05	2.978,10	4,5	
Clover	7.082,31	118.503,84	16,7	
Mixture of grass	397,84	3.123,90	7,9	
Vetch	775,23	5.714,44	7,4	
Green corn	48,69	191,07	3,9	
Green	22,76	234,22	10,3	
	62,91	264,42	4,2	
vheat	2.531,60		10.0	
Green oat	29,93	538,57	18,0	
Green	2.501,67	23.050,24	9,2	
parley	16,51 16,79	-	-	
Green rye	15,52	74,08	4,8	
Other green fodder (vetch)	8.164,8	· ·	-,0	

<sup>\*</sup> Agriculture Holdings Survey, 2019

7. Information on any changes in commodity prices and land use in 2018 and 2019 associated with increased use of biomass and other forms of energy from renewable sources.

**Reference**: Article 22(1) h) of Directive 2009/28/EC).

Because of the limited and lack of reporting data, as well as small scale harvesting of fuelwood for commercial trade, the effect of increased use of biomass cannot be observed in commodity prices.

8. Development and share of biofuels made from wastes, residues, non-food cellulosic material, and lingo cellulosic material.

Reference: Article 22(1) i) of Directive 2009/28/EC).

Table 6: Production and consumption of Art.21(2) biofuels (Ktoe)

Article 21(2) biofuels <sup>41</sup>	2019	2018
Production – by Fuel type	0	0
Consumption – by Fuel type	0	0
Total production Art.21.2.biofuels	0	0
Total consumption Art.21.2. biofuels	0	0
% share of 21.2. fuels from total RES-T	0	0

As there is no legislation in place for the production of biofuels in Kosovo, there are no reports on the production of biofuels, both so called 1<sup>st</sup> and 2<sup>nd</sup> generation biofuels.

It cannot be fully excluded that such biofuels are imported into Kosovo but customs statistics only show very moderate volumes of imports, with which it is not clear which production method has been used.

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<sup>&</sup>lt;sup>41</sup> Biofuels made from wastes, residues, non-food cellulosic material, and lignocellulosic material.

# 9. Information on the estimated impacts of the production of biofuels and bioliquids on biodiversity, water resources, water quality and soil quality

Reference: Article 22 (1) j) of Directive 2009/28/EC.

As there is no legislation in place for the production of biofuels in Kosovo, there are no reports on the production of biofuels. Therefore, (environmental) impacts of such production is non-existing in Kosovo for the reporting period.

# 10. Estimation of net greenhouse gas emission savings due to the use of energy from renewable sources

**Reference**: Article 22 (1) k) of Directive 2009/28/EC).

Table 7: Estimated GHG emission savings from the use of renewable energy (t CO2eg)

	· · · · · · · · · · · · · · · · · · ·	
Environmental aspects	2019	2018
Total estimated net GHG emission saving from using renewable energy <sup>42</sup>		
- Estimated net GHG saving from the use of renewable electricity	451,605 <sup>48</sup>	436,074 <sup>43</sup>
- Estimated net GHG saving from the use of renewable energy in heating and cooling	NA	NA
- Estimated net GHG saving from the use of renewable energy in transport	0	0

GHG savings from the production of electricity from renewable sources have been estimated using a so called marginal approach, i.e. calculating the emission factor for the generation of energy by the fossil production park (power stations Kosovo A and Kosovo B).

An estimation of GHG savings in heating was not possible to assess since there is no clear specification of the baseline, because wood biomass has been traditionally the first choice for heating in most cases.

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<sup>&</sup>lt;sup>42</sup> The contribution of gas, electricity and hydrogen from renewable energy sources should be reported depending on the final use (electricity, heating and cooling or transport) and only be counted once towards the total estimated net GHG savings.

<sup>&</sup>lt;sup>43</sup> Using emission factor of 1.438 kg CO<sub>2</sub> per kWh from Draft-Regulation On National Calculation Methodology For Integrated Energy Performance Of Buildings, MESP, 2018

11. Excess/deficit production of energy from renewable sources compared to the indicative trajectory which could be transferred to/imported from other Contracting Parties, Member States and/or third countries, as well as estimated potential for joint projects until 2020

Reference: Article 22 (1) l, m) of Directive 2009/28/EC).

Table 8: Actual and estimated excess and/or deficit (-) production of renewable energy compared to the indicative trajectory which could be transferred to/from other Contracting Parties, Member States and/or third countries with Kosovo (ktoe)<sup>44</sup>,<sup>45</sup>

	2014	2015	2016	2017	2018	2019	2020
Actual/estimated excess or deficit production (Please distinguish per type of renewable energy and per origin/destination of import/export)	NA 5.71% 46	99,0 6.5%	6,6 0.42%	22.7 1.41%	23.6 1.42%	8.8 0.52%	0 0%

#### 11.1. Statistical transfers, joint projects and joint support scheme decision rules.

Kosovo has included in its energy legislation (governmental instruction, 2013) a provision to participate in statistical transfer and/or joint support schemes between Energy Community Contracting Parties. This legislation can, after Kosovo has attained its targets or in order to reach such targets, provide actual cooperation with other Contracting Parties under the Energy Community. Provisions to do the same with EU member states after accession, should still be implemented<sup>47</sup>.

The revised draft of Administrative Instruction on Promotion and Use of RES has included the new article that regulates the independent external audit, in accordance with Article 13 of Ministerial Council Decision.

For the reporting years, no statistical transfers, joint projects and joint support scheme decision rules have been implemented.

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<sup>&</sup>lt;sup>44</sup> Please use actual figures to report on the excess production in the two years preceding submission of the report, and estimates for the following years up 2020. In each report Contracting Party may correct the data of the previous reports.

<sup>&</sup>lt;sup>45</sup> When filling in the table, for deficit production please mark the shortage of production using negative numbers (e.g. –x ktoe).

<sup>&</sup>lt;sup>46</sup> Update 2018-2020 to NREAP, MED Oct-2018 (whole series in table)

<sup>&</sup>lt;sup>47</sup> Energy Community Secretariat Annual Implementation Report Aug 2014

## 12. The share for biodegradable waste in waste used for producing energy

Reference: Article 22(1)(n) of Directive 2009/28/EC.

Waste processing practices in Kosovo are still based on landfilling methodologies. The (publicly owned) waste processing industry in Kosovo has so far not been able to produce energy from biodegradable waste.

The national Waste Action Plan does not proved implementation activities to convert the biodegradable portion of waste into useful energy.

## V. SOURCES OF INFORMATION

#	Title publication	Institution	Author	Year	Website
1	Shares Summary Results 2019	Eurostat		2020	https://ec.europa.eu/eurostat/doc uments/38154/4956088/SUMM ARY-results-SHARES- 2019.xlsx/4e5eb100-822c-ec50- cf04- 803e6ef9ad05?t=160770604958 7
2	SHARES detailed results 2019, Kosovo.xlsm	Eurostat		2020	https://ec.europa.eu/eurostat/doc uments/38154/4956088/SHARE S+2019+detailed+results.zip/75 822853-9355-64bd-6187- 6affc41a47e9?t=1608192824721
3	Annual Report 2018	ERO		2019	https://www.ero-ks.org/zrre/sites/default/files/Publikimet/Raportet%20Vjetor/Annual%20Report%202018_eng.pdf
4	Raporti Vjetor 2019	ERO		2020	https://www.ero- ks.org/zrre/sites/default/files/Pu blikimet/Raportet%20Vjetor/Ra porti%20vjetor%202019_ZRRE _final_alb.pdf
5	Energy Balance Kosovo 2019 Askdata platform, Yearly Indicators.	Kosovo Agency of Statistics		2020	https://ask.rks- gov.net/en/kosovo-agency-of- statistics/add-news/energy- balance-in-kosovo-2019 https://askdata.rks- gov.net/PXWeb/pxweb/en/askda ta/askdata05%20Energy/?rxid =ad787284-363a-44a5-bb3d- 0f067afa36b7
6	Decision V_810_2016 On approval of the Feed - in Tariffs for generation of electricity from Renewable Energy Sources	ERO		2016	http://ero-ks.org/2016/Vendimet/V_810_2 016_eng.pdf
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8	Balanca Vjetore E Energjisë Në Republikën E Kosovës Për Vitin 2017 (Albanian), 'Energy balance for the republic of Kosovo for the year 2017'	Kosovo Agency of Statistics (KAS),	June 2018,	http://ask.rks-gov.net
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10	Annual Report 2018 Energy Regulator Kosovo	Energy Regulator Kosovo (ERO)	2019	www.ero-ks.org
11	Raporti Vjetor 2019 (Annual Report 2019 in Albanian only) Energy Regulator Kosovo	Energy Regulator Kosovo (ERO)	2020	www.ero-ks.org
12	Draft- Regulation On National Calculation Methodology For Integrated Energy Performance Of Buildings	Ministry of Environmen t and Special Planning	2018	https://mmph.rks-gov.net/
13	Update 2018- 2020 National Renewable Energy Action Plan, MED, Oct- 2018	Ministry of Economic Developme nt	Oct- 2018	http://mzhe-ks.net/en/