



**REPUBLIC OF ALBANIA**  
**MINISTRY OF INFRASTRUCTURE AND ENERGY**  
**NATIONAL AGENCY OF NATURAL RESOURCES**

**Albania Renewable Energy Progress Reports 2016-2017**

## 1. Introduction

Albania adopted a National Renewable Energy Action Plan on 27/1/2016 and 2018. Article 15 of Ministerial Council Decision 2012/04/MC-EnC requires Contracting Parties, to submit a report, each two years, to the Energy Community Secretariat on progress in the promotion and use of energy from renewable sources. The points covered refer to in Article 22 of Directive 2009/28/EC.

Albania has undertaken a series of steps for the inclusion of in its policies for energy, the requests of the EU Directives about the common rules for the creation and the development of internal energy market and the enhancement of production and energy consumption from renewable resources. This report is important for monitoring 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 Albania.

## 2. RES Policy

Albania has a considerable potential of Renewable Energy Sources (RES). RES represents an important energy source available in Albania, 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. Renewable energy might be the solution for the decrease of this strategic dependence on the imports and the improvement not only of the security for energy supply but even of the macroeconomic and political security of the country decreasing the domestic budget deficit.

Albanian government has considered the promotion of renewable energy use as an important tool of energy policies for the increase of the security for energy supply, economic development, energy sector sustainability and environment protection. Even though, in Albania, more than 95% of energy and 20-23% of primary total resources have been provided by hydropower stations, the objectives of Albanian Government energy policy intend to increase furthermore the use of RES.

## 3. RES PROGRESS REPORT ACCORDING TO MODEL REPORT EC

Below, the questions are answered according to Model Report of the EC, by using the provided questions and table structure.

### **Sectoral and overall shares and actual consumption of energy from renewable sources in 2016-2017**

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

The data for the overall share of renewables in the energy consumption of Albania 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>**

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

	2017	2016
RES-H&C <sup>2</sup> (%)	24.87%	33.83%
RES-E <sup>3</sup> (%)	90.68%	85.97%
RES-T <sup>4</sup> (%)	13.4%	8.6%
Overall RES share <sup>5</sup> (%)	34.57%	37.09%
<i>Of which from cooperation mechanism<sup>6</sup> (%)</i>	0	0
<i>Surplus for cooperation mechanism<sup>7</sup> (%)</i>	0	0

The share of RES in the overall energy of Albania is largely determined by hydropower and firewood. Albanian government has been focused on the diversification of its supply with energy and the promotion of other renewable energy resources, such as biomass, solar energy and wind energy. As the feed-in tariff scheme we will expect that the share of energy from renewable sources will grow towards the target set for 2020. (38%).

**Table 1a: Calculation table for the renewable energy contribution of each sector to final energy consumption (ktoe)<sup>8</sup>**

	2017	2016
(A) Gross final consumption of RES for heating and cooling	181.4	205.5
(B) Gross final consumption of electricity from RES	580.0	572.1
(C) Gross final consumption of energy from RES in transport	87.9	92
(D) Gross total RES consumption <sup>9</sup>	761.5	777.6
(E) Transfer of RES <u>to</u> other Contracting Parties or Member States	0	0
(F) Transfer of RES <u>from</u> other Contracting Parties and 3rd countries	0	0
(G) RES consumption adjusted for target (D)-(E)+(F)	761.5	777.6

<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(1b) 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>3</sup> Share of renewable energy in electricity: gross final consumption of electricity from renewable sources for electricity (as defined in Articles 5(1a) 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>4</sup> Share of renewable energy in transport: final energy from renewable sources consumed in transport (cf. Article 5(1c) 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>5</sup> Share of renewable energy in gross final energy consumption. The same methodology as in Table 3 of NREAPs applies.

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

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

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

<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 [Albania] to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in electricity<sup>10</sup>**

	2017		2016	
	MW	GWh	MW	GWh
Hydro <sup>11</sup> :	2,047	4,525	1913	7,782
non pumped				
<1MW	23.979	53.56	21.75	75.26
1MW-10 MW	252.981	571.10	225.42	1486.09
>10MW	1770.04	3900.51	1665.83	6220.65
pumped				
mixed <sup>12</sup>				
Geothermal				
Solar:				
<i>photovoltaic</i>				
<i>concentrated solar power</i>				
Tide, wave, ocean				
Wind:				
<i>onshore</i>				
<i>offshore</i>				
Biomass <sup>13</sup> :				
<i>solid biomass</i>				
<i>biogas</i>				
<i>bioliquids</i>				
<b>TOTAL</b>	<b>2,047</b>	<b>4,525</b>	<b>1913</b>	<b>7,782</b>
<i>of which in CHP</i>				

**Table 1c: Total actual contribution (final energy consumption<sup>14</sup>) from each renewable energy technology in [Albania] 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>15</sup>**

	2017	2016
Geothermal (excluding low temperature geothermal heat in heat pump applications)	0	0
Solar	13.20	12.75
Biomass <sup>16</sup> :		
<i>solid biomass</i>	168	188
<i>biogas</i>	0	0
<i>bioliquids</i>	0	0
Renewable energy from heat pumps: - of which aerothermal - of which geothermal - of which hydrothermal		
<b>TOTAL</b>	<b>181.20</b>	<b>200.75</b>
<i>Of which DH<sup>17</sup></i>		
<i>Of which biomass in households<sup>18</sup></i>		

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

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

<sup>12</sup> In accordance with new Eurostat methodology.

<sup>13</sup> Take into account only those complying with applicable sustainability criteria, cf. Article 5(1) of Directive 2009/28/EC last subparagraph.

<sup>14</sup> Direct use and district heat as defined in Article 5.4 of Directive 2009/28/EC.

<sup>15</sup> Facilitates comparison with Table 11 of the NREAPs.

<sup>16</sup> Take into account only those complying with applicable sustainability criteria, cf. Article 5(1) last subparagraph of Directive 2009/28/EC.

<sup>17</sup> District heating and / or cooling from total renewable heating and cooling consumption (RES- DH).

<sup>18</sup> From the total renewable heating and cooling consumption.

**Table 1d: Total actual contribution from each renewable energy technology in [Albania] 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>19, 20</sup>**

	2017	2016
Bioethanol/ bio-ETBE	0	0
<i>Of which Biofuels<sup>21</sup> Article 21.2</i>		
<i>Of which imported<sup>22</sup></i>		
Biodiesel (ktoe)	87.9	92
<i>Of which Biofuels<sup>23</sup> Article 21.2</i>		
<i>Of which imported<sup>24</sup></i>		
Hydrogen from renewables		
Renewable electricity		
<i>Of which road transport</i>		
<i>Of which non-road transport</i>		
Others (as biogas, vegetable oils, etc.) – please specify	87.9	92
<i>Of which Biofuels<sup>25</sup> Article 21.2</i>		
<b>TOTAL</b>	87.9	92

**2. Measures taken in the preceding 2 years and/or planned at national level to promote the growth of energy from renewable sources taking into account the indicative trajectory for achieving the national RES targets as outlined in your National Renewable Energy Action Plan. (Article 22(1)a of Directive 2009/28/EC)**

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

Measure name and reference	Type of measure	Expected results	Targeted group and /or activity	Existing or planned	Starting date/Completion
<b>MEASURES REGARDING PRIMARY LEGISLATION</b>					
Draft Act on the Methodology for Calculating the "National Objectives"	Regulatory	Correction of National RES Objective	MIE, Investors and market operators	Planned	Ends in October 2018
"Auction Process" for PV technology on a wide scale more than 2 MWp	Regulatory	Request of the Law 7/2017 Transparent process for generating PV capacities	MEI, Investors and Market Operators	Planned	It ends in October 2019 with EBRD assistance.
	Regulatory			New	Ends in December 2018

<sup>19</sup> For biofuels take into account only those compliant with the sustainability criteria, cf. Article 5(1) last subparagraph.

<sup>20</sup> Facilitates comparison with Table 12 of the NREAPs.

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

<sup>22</sup> From the whole amount of bioethanol / bio-ETBE.

<sup>23</sup> Biofuels that are included in Article 21(2) of Directive 2009/28/EC.

<sup>24</sup> From the whole amount of biodiesel.

<sup>25</sup> Biofuels that are included in Article 21(2) of Directive 2009/28/EC.

Revision of DCM 822/718 "On Procedures for Applications of Non-Concession Generating Works" by Hydro, Wind and PV.		Improve the procedures after the Law 7/2017 has been issued	MEI, Investors and Market Operators		
Draft Act for Supporting "Contracts for difference"	Regulatory	Request of the Law 7/2017 RESs to be integrated into the power system according to the liberalized market rules.	MIE, Investors	New	The provision will continue beyond 2020 until the market is established.
Draft Act for "Net Power Measurement Schemes" for self-consumption up to 500kW PV installations	Regulatory	Request of the Law 7/2017 Energy produced (ktoe)	MIE, OSHEE, Investors	Planned	Ends in April 2018
Draft Act for the Determination of "Renewable Energy Operator"	Regulatory	Request of the Law 7/2017 Energy produced (ktoe)	MIE	New	Ends in March 2019
Draft Act for rules of "Network Access" and "Connection to Network"	Regulatory	Request of the Law 7/2017 Energy produced (ktoe)	MIE, ERE, OSHEE, Investors	New	Ends in December 2019
Draft Act for "Guarantees of Origin" of RES	Regulators and Financials	To exchange RESs to reach the targets in other places they can invest. Request of the Law 7/2017	MIE, ERE, Investors	New	Ends in December 2019
Draft Law on Biofuels	Administrative	Use of biofuels for transport	MEI, Distributors and End Users	Existing	Ends in January 2019

Biofuels Sustainability Criteria	Administrative	Use of biofuels for transport	MEI, Distributors and End Users	New	Ends in January 2019
Criteria for biofuels verification	Administrative	Energy Savings and Produced Energy (ktoe)	Investors and end-users (industrial)	New	Ends in January 2019
Diversification of Renewable Resources for Electricity Production from PV/Eolike	Administrative	Optimization of energy produced by RES	MIE, Consultancy, Investors	Existing BERZH/KfW	June 2018-2019
Studies to identify the RES- Heating & Cooling indicator at the national level	Administrative	Energy identified as RES-Heating & Cooling. Important statistical information	Public or private buildings that are new or existing	New	January 2019
<b>MEASURES REGARDING LEGAL AND REGULATORY FRAMEWORK</b>					
Drafting the approach for fixed prices of energy from RES at energy market.	Regulatory	RER-E in the energy stock market	ERE/MEI	Planned	Within 2019
Appropriate procedures for the auction of RES as capacities provided for in RRNAP pursuant to MEI proposal	Regulatory	Produced energy (ktoe)	MEI/ERE	Planned	5years
Origin warranty for all RES	Regulatory	Produced energy (ktoe)	Investors	Planned	No specific term

The obligations of the transmission or distribution companies to connect new RES plants in their network; the payment of the direct costs for the connection in the energy transmission and distribution networks	Legal Regulatory	Loss reduction	RES Investors, OST/OSHEE	Planned	2019-2020
<b>MEASURES WITH FINANCIAL EFFECTS TO PROMOTE RES</b>					
Receiver's obligation (Operator) to buy energy produced from small HPPs.	Financial	Produced energy (ktoe)	RES Investors, OSSH	Existing	For new projects, the measure will continue beyond 2020
Long-term agreements to purchase energy produced by the current energy produces from RES	Legal Finance Regulatory	Produced energy (ktoe)	RES Investors, OSHEE KESH, OST	Existing	Depending on the existing contracts PPA
Fiscal Supporting policy for the promotion of diversified RES systems (HPP, PV and Eolic)	Finance	Produced energy (ktoe)	RES Investors, OSHEE, KESH, OST	Existing	PPA Contract
Mandatory purchase of energy through CfD in the market of energy from RES	Legal finance Regulatory	Produced energy (ktoe)	RES Investors, OSHEE, KESH, State Aid	Planned 2018	2018-2020
The obligations who introduce in the market, for transport reasons, liquid combustibles originating from oil, to provide fuel for the motors with oil and diesel, which are mixed with biofuels according to the percentages determined in the existing law for biofuels.	Financial	Production and use of biofuels (ktoe)	Investors MEI/MB/MM and the Offices of the assessment of sustainability criteria	Planned	2018-2020
Zero level of the excise tax for clean biodiesel until 2020	Financial	Identical	Trading investors and public administration	Existing	2018-2020



The supervision of biofuels quality from the Technical State Inspectorate and the Offices of the assessment of sustainability criteria	Administrative	Use of biofuels for transport	Distributors and final users	Planned	2018-2020
The approval of the policies and measures for the increase of solar energy in buildings for water heating	Administrative	Energy produced from NUED systems	Public or private buildings constructed from the beginning or the existing ones	Existing	2018-2020
Financing through the grants form RES Fund for the heating and cooling projects in agriculture sector using biomass.	Financial	Energy produced from biomass	Agricultural sector	Planned	2018-2020
Firewood processing	Financial	Thermal energy	Environment sector	Planned	2018-2020

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

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

\*\*\*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.)?

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

**2.a Please describe the progress made in evaluating and improving administrative procedures to remove regulatory and non-regulatory barriers to the development of renewable energy. (Article 22(1)e) of Directive 2009/28/EC).**

A list of the existing legislation and if possible, the regional legislation on the procedures of authorization, certification and licensing and territorial planning applied to plants and their power transmission and distribution to the network infrastructure:

**Relevant applicable legislation in the energy sector**

- Law No. 7/2017 On renewable energy sources provides: Access to the grids, Article 12, Connection to the grids Article 13, and Cost for grid system connection and capacity expansion (Article 14).
- RES Law is to facilitate the harnessing of Albania's significant renewable energy resources, in particular in the area of hydroelectric plants, biomass and biofuel resources. Through the Energy Community, Albania has set a binding target of 38% of its gross final energy consumption to be fulfilled from renewable energy by 2020, which is an ambitious target compared to 33.1% in 2014, mostly due to the increase of final energy consumption. Specifically, the RES Law will introduce a renewable energy support scheme for electricity based on Contracts for Difference ("CfDs"), which takes into account the creation of a competitive day-ahead electricity market.
- Law no. 43/2015, dated 30.04.2015 "On power sector" sets out the main principles for the energy sector development, including RES power plants and the transmission and

distribution networks. Law transposes the EU Directive 2009/72 on electricity and repealing the previous law on electricity (Law no. 40/2015, dated 22.05.2003). This law also includes the requirements and criteria for granting a license to carry out an activity in energy sector. The law also includes a number of specific provisions regulating the construction of a direct line or of a commercial interconnection line.

The Albanian Government and ERE are reviewing bylaws, with the aim of meeting the requirements of the new law on energy sector, including a number of bylaws provided below.

- Decision of Council of Ministers no. 416, dated 13.05.2015 “On approval of the general and special conditions, accompanying documents, term of validity, application forms for authorization and permit, procedures for the revision of decision-making process and forms of authorization of permit for the use of water resources”, which defines the specific conditions and procedures for reviewing and decision-making to grant an authorization or permit of use of water resources, including the use of water for construction of hydropower plants.
- Decision of Council of Ministers no. 822, date 7.10.2015, On the approval of the rules and procedures for the construction of new generation capacities of electricity, not subject to concession”.
- Decision of Council of Ministers no 369, date 26.4.2017 “On approving the methodology for determining the purchase price of electricity produced by small renewable energy sources from sun and wind”
- Decision of ERE no. 120, dated 27.07.2017 “on the determination of prices of electricity produced by small plant PV with installed capacities up to 2 MW and by wind with capacity installed to 3 MW”

### **Specific applicable legislation in the sector of RES**

- Law no. 9876, dated 14.02.2008 amended “On production, transport and trade of bio-fuels and other renewable fuels for transport”, as amended, sets out the legal framework for granting permits for the production, wholesale and retail of bio-fuels and other renewable fuels, for the purpose of transport.

### **2.b Please describe the 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. (Article 22(1)f) of Directive 2009/28/EC).**

The new law on energy sector (Article 29) provides for that operators of transmission and distribution system ensure access to the network for all clients and users of the system, on transparent and non-discriminatory basis and at ERE approved and published tariffs. The same article foresees that producers who produce energy from renewable sources, have priority access to the grids.

The new law on renewable energies (article 12/13) provides for that transmission and distribution of electricity produced from renewable energy resources are guaranteed, except in emergency situations defined in the law on energy sector or in the transmission and distribution codes. In the course of the dispatch of power generation plants, the Transmission System Operator will attach priority to power

generation installations to the extent that allows safe operation of the national electricity system and based on transparent and non-discriminatory criteria.

Currently, all existing producers of electricity in Albania rely on hydropower, therefore no priority is attached to the generating installations. Furthermore, the transmission system operation is carried out by an independent operator of the transmission system that dispatches the producers based on market rules.

As for producers connected to the distribution network, existing legislation guarantees their access to the network, unless there is a security problem with the functioning of the network.

**3. Please describe the 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. (Article 22(1)b) of Directive 2009/28/EC).**

Support schemes for new and existing small hydropower plants with a capacity of up to 15 MW are in force since 2007. The Albanian government has recently passed a resolution in July ("**CMD 349/2018 on RES Support Schemes**"), designating the means for promoting the use of energy generated from solar and wind power plants and which stipulates the procedures for electing the eligible projects to benefit from such means.

According to the 2017 RES Law, *feed-in-premium tariffs* for renewables with over 2 MW of installed capacity should be granted through a competitive auction process, on non-discriminatory, clear and transparent basis. Notably, the CfD will not apply to small RES facilities (i.e. projects with an installed capacity up to 2MW and 3MW in solar and wind energy respectively), as these projects are supported by separate measures.

It is suggested that **table 3** is used to provide more detailed information on the support schemes in place and the support levels applied to various renewable energy technologies. Contracting Parties are encouraged to provide information on the methodology used to determine the level and design of support schemes for renewable energy.

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

RES support schemes year n (2016)		Per unit support	Total (M€)*
[(sub) category of specific technology or fuel ]			
Instrument (provide data as relevant)	Obligation/quota (%)		
	Penalty/Buy out option/ Buy out price (€/unit)		
	Average certificate price		
	Tax exemption/refund		
	Investment subsidies (capital grants or loans) (€/unit)		
	Production incentives		
	Feed-in tariff up to 15 MW	55.58 (Euro/MWh)	47.75
	Feed-in premiums		
	Tendering		
Total annual estimated support in the electricity sector			
Total annual estimated support in the heating sector			
Total annual estimated support in the transport sector			

\* The quantity of energy supported by the per unit support gives an indication of the effectiveness of the support for each type of technology

Specific rules on how the auction process will be organised are broadly introduced in the CMD 349/2018 on RES Supportive Measures. It therefore remains to be seen whether the supportive scheme will help to create a suitable investment environment for RES projects in Albania.

Under the 2017 RES Law, the main promotional measure is a specific form of a feed-in tariff termed contract for difference. The CfD can be characterised as a sliding feed-in-premium system, meaning that renewable energy producers will sell the electricity in the market and receive the variable difference between the auction price and the electricity market price (reference price) as a support measure.

The CfD will have a duration of 15 years. Interestingly, if prices in the electricity market go up and are higher than the auction price, the RES producers will be obliged to pay such difference.

**Table 3/1: Support schemes for renewable energy**

RES support schemes year n (2017)		Per unit support	Total (M€)*
[(sub) category of specific technology or fuel ]			
Instrument (provide data as relevant)	Obligation/quota (%)		
	Penalty/Buy out option/ Buy out price (€/unit)		
	Average certificate price		
	Tax exemption/refund		
	Investment subsidies (capital grants or loans) (€/unit)		
	Production incentives		
	Feed-in tariff Hydropower up to 15MW	50.35(Euro/MWh)	23.75
	Feed-in tariff solar PV up to 2MW	100 (Euro/MWh)	
	Feed-in tariff Wind up to 2MW	76 (Euro/MWh)	
	Feed-in premiums		
Tendering			
Total annual estimated support in the electricity sector			
Total annual estimated support in the heating sector			
Total annual estimated support in the transport sector			
* The quantity of energy supported by the per unit support gives an indication of the effectiveness of the support for each type of technology			

The legal criteria of RES generation established by the Albanian Energy Regulatory Entity (ERE) provides that only the generators that fulfils the legal conditions might be supported pursuant to a CfD. The renewable technologies that will be acceptable for support according to CfD scheme include the following: (i) biomass transformation, (ii) wind in terrestrial boundaries, (iii) solar photovoltaics, (iv) hydro energy, (v) energy from the waste through CHP, (vi) gas from landfills and (vii) gas from the waste urban water.

Other support for renewable energy producers with an installed capacity higher than 5 MW consists of tax incentives customs duty exemptions for machinery and equipment used for the construction of new capacities and an exemption from excise tax.

Authorizations for new hydropower plants are granted based on the Concession Law and a competitive bidding process. According to the 2015 Power Sector Law, authorizations for Power plants larger than 2 MW not subject to concessions are granted by the Government upon proposal of the Ministry in charge of energy. Power plants below 2 MW which are not subject to the Concession Law are granted an authorization by the Ministry in charge of energy. The Renewable Energy Law provides that the Government shall approve simplified procedures on issuing the necessary authorizations for producers of renewable energy.

**3.1. Please provide the information on how supported electricity is allocated to final customers for purposes of Article 3 (6) of Directive 2003/54/EC. (Article 22(1)b) of Directive 2009/28/EC).**

The Renewable Energy Law also obliges the network operators to connect with priority all renewable energy producers to the closest point of the grid. As regards connection costs, the Renewable Energy Law provides that these shall be borne by the producer, except for the cases when the connection cost is borne by the grid operator or through private investments, pursuant to the provisions of the Power Sector Law.

The Law on Renewable Energy guarantees the support schemes for electricity produced from renewable energy source with tariffs, the privileged producers. The law gives the priority in delivery of total electricity generated into the transmission or the distribution system, as well as being exempted from payment of costs for imbalances by the respective system operator.

The CMD 349/2018 on RES Supportive Measures provides for further support measures, including:

- making available to the RES producer the immovable properties required for the project implementation;
- priority access to the transmission and distribution grids; and
- producers receiving a guarantee of origin for their produced electricity.

However, the RES producers will not receive support in the form of an assumption of imbalances responsibility, as they will be responsible for their own imbalances and will be required to conclude either a contract with the transmission system operator or to transfer the balancing responsibility to another responsible balancing party, thus becoming a member of a balancing group.

**4. Please provide information on how, where applicable, the support schemes have been structured to take into account RES applications that give additional benefits, but may also have higher costs, including biofuels made from wastes, residues, non-food cellulosic material, and ligno-cellulosic material?) (Article 22 (1)c of Directive 2009/28/EC).**

Financial support might be classified in different ways. Such examples are: financial support for investment, capital grants, loans with low interest, the exclusion from the taxes or their reduction, tax reimbursement, tendering schemes, obligations for renewable tariffs with or without green certificates (tradable green certificates), promoting tariffs (feed in), promoting rewards, voluntary schemes. 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, not for secondary purposes or benefits.

Financial support for bio-fuels used for transport is provided through the exclusion from the taxes. Pursuant to article 10 of law on bio fuels, from the period when the law enters into force and until 2018, the excise tax for these products will be zero.

In practice, none of the schemes has been implemented, thus causing further delays in implementing the new legislation, mainly for the following reasons:

- Necessary secondary legislation for net metering schemes, access to and connection with grid as well as guaranties of origins are not in place as yet (this and other documentation is to be drafted as part of an ongoing project financed by EBRD);
- No CfD model has been drafted;
- Market openness and establishment of Power Exchange is postponed to January 2019.

Finally, the actual implementation of the 2017 RES Law will highly depend on the real willingness of the Albanian government to promote RES.

**5. Please provide 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. (Article 22(1)d of Directive 2009/28/EC)).**

Currently in Albania there is still no market for warranties/certificates of origin (e.g. as part of the sales of energy green certificates (produced from renewable sources). Detailed promotions of the guarantee /certificate of origin under the law on RES are set out in Articles 16, 17 and 18.

Referred of *the law on RES*, ERE will supervise the issuance, transfer and cancellation of guarantees of origin in accordance with the provisions of the regulation issued under paragraph 9 of this article.

Guarantees of origin are issued based on comprehensive data and correct information to certify the origin of electricity supplied by the manufacturer and certified measurement data from network system operator. Guarantees of origin are issued only if the producer provides all the information required under paragraph (2) of the Article 16 of *the law on RES*.

Any use of the guarantee of origin is made within 12 months of production of the corresponding energy unit. The guarantee of origin is canceled after use.

**6. Please describe the developments in the preceding 2 years in the availability and use of biomass resources for energy purposes. (Article 22(1)g of Directive 2009/28/EC)).**

Biomass is one of the most *used* sources of energy in Albania – mainly in the form of firewood, combined in some cases with shrubs and waste of the plans from the agricultural sector. Albania current use of woody biomass exceeds annual forest growth increment by 46%. Thinning of forests should be promoted to facilitate the growth of high value wood, and increase biomass supply with the resulting residue. Change in structure of use of woody biomass is needed to ensure sustainability.

In Albania, current biomass use relies mainly on high-value stem wood—structure of the use should be a move toward more use of forest residues (logging residues, thinning). The potential for energy crops should be further explored and would require concentrated effort for years to bring to markets. In Albania, 18% of agricultural land is not currently used. Supply infrastructure and biomass fuel markets need to be developed. In Albania, the density of forest road networks is lowest in the W-B (82% below optimum). An annual investment into forest logistics infrastructure of approximately EUR 1.7 M through next 15 years would be needed. For the markets, development of biomass logistics and trade centers would be key.

The remains which have fallen by the trees and the woods of poor quality are mainly used. The waste of biomass from agriculture is not used widely and usually it is destroyed right in the spot. The use of bio-gas is not developed, despite the available resources. It is important to consider that the majority of the heating equipments which are used – the stoves and the chimneys – are old and inefficient, with heat loss up to 40-50%. The heating through the radiators with high efficiency for the local systems is underdeveloped. The assessments of the updated energy strategy indicate a considerable potential for extraction and exploitation of biomass in Albania from forestry, agriculture and livestock (for bio-gas production).

**Table 4: Biomass supply for energy use**

	Amount of domestic raw material (*)		Primary energy in domestic raw material (ktoe)		Amount of imported raw material 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)	
	2017 Year n-1	2016 Year n-2	2017 Year n-1	2016 Year n-2	2017 Year n-1	2016 Year n-2	2017 Year n-1	2016 Year n-2	2017 Year n-1	2016 Year n-2	2017 Year n-1	2016 Year n-2
<b>Biomass supply for heating and electricity:</b>												
Direct supply of wood biomass from forests and other wooded land energy generation (fellings etc.)**	961493	1075956	168	188								
Indirect supply of wood biomass (residues and co-products from wood industry etc.)**	40062.21	57231.73	7	10								
Energy crops (grasses, etc.) and short rotation trees (please specify)	0	0	0	0								
Agricultural by-products / processed residues and fishery by-products **	68678.07	68678.07	12	12								

Biomass from waste (municipal, industrial etc.) **	0	0	0	0								
Others (please specify)	0	0	0	0								
<b>Biomass supply for transport:</b>												
Common arable crops for biofuels (please specify main types)	0	0										
Energy crops (grasses, etc.) and short rotation trees for biofuels (please specify main types)	0	0										
Others (please specify)	0	0										

\* 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

\*\* 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

**Table 4a. Current domestic agricultural land use for production of crops dedicated to energy production (ha)**

Land use	Surface (ha)	
	2017 Year n-1	2016 Year n-2
1. Land used for common arable crops (wheat, sugar beet etc.) and oil seeds (rapeseed, sunflower etc.) (Please specify main types)	0	0
2. Land used for short rotation trees (willows, poplars). (Please specify main types)	0	0
3. Land used for other energy crops such as grasses (reed canary grass, switch grass, Miscanthus), sorghum. (Please specify main types)	0	0

**7. Please provide information on any changes in commodity prices and land use within your Contracting Party in the preceding 2 years associated with increased use of biomass and other forms of energy from renewable sources? Please provide where available references to relevant documentation on these impacts in your country. (Article 22(1) h) of Directive 2009/28/EC).**

*There was no evidence of an increase in commodity prices as a result of the use of biomass and other forms of energy from renewable sources.*

**8. Please describe the development and share of biofuels made from wastes, residues, non-food cellulosic material, and lingo cellulosic material. (Article 22(1) i) of Directive 2009/28/EC).**

**Table 5: Production and consumption of Art.21(2) biofuels (Ktoe)**

Article 21(2) biofuels <sup>26</sup>	2017 Year n-1	2016 Year n-2

<sup>26</sup> Biofuels made from wastes, residues, non-food cellulosic material, and lignocellulosic material.



Production – Fuel type X (biodiesel ) (ktoe)	87.9	92
Consumption – Fuel type X (biodiesel )	87.9	92
Total production Art.21.2.biofuels	87.9	92
Total consumption Art.21.2. biofuels	87.9	92
% share of 21.2. fuels from total RES-T	4.1	4.2

**9. Please provide information on the estimated impacts of the production of biofuels and bioliquids on biodiversity, water resources, water quality and soil quality within your country in the preceding 2 years.** Please provide information on how these impacts were assessed, with references to relevant documentation on these impacts within your country. (*Article 22 (1) j) of Directive 2009/28/EC*).

Currently no information on estimated impacts of the production of biofuels.

**10. Please estimate the net greenhouse gas emission savings due to the use of energy from renewable sources (*Article 22 (1) k) of Directive 2009/28/EC*).**

*For the calculation of net greenhouse gas emission savings from the use of renewable energy, the following methodology is suggested:*

- *For biofuels: In accordance with Article 22(2) of Directive 2009/28/EC.*
- *For electricity and heat it is suggested to use the EU wide fossil fuel comparators for electricity and heat as set out in the report on sustainability requirements for the use of solid and gaseous biomass sources in electricity, heating and cooling<sup>27</sup>, if no later estimates are available.*

*If a Contracting Party chooses not to use the suggested methodology for estimating the net greenhouse gas emission savings, please describe what other methodology has been used to estimate these savings.*

Albania has ratified both the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol with the status of a Non-Annex 1 Party. In the International Climate Change talks Albania has associated with European Union positions and within the restrictions of being a Non Annex I party committed to implement ‘National Appropriate Mitigation Actions’ - NAMAs.

Albania’s contribution to the global greenhouse gas emissions is relatively low, estimated at an average of 9.4 million ton/year of CO<sub>2</sub> eqv. This is because over 95 percent of Albania’s electricity is produced from hydro sources and high energy intensity industries are no longer operating. This would also mean that Albania’s greenhouse gas emissions allows to have a smooth trend of achieving 2 tons of greenhouse gas emissions per capita by 2050, which can be taken as a target for global contraction and convergence of greenhouse gas emissions.

The contribution of renewable energy sources in the reduction of emissions of greenhouse gases, has been made, so-called avoided CO<sub>2</sub> emissions due to the use of renewable energy instead of fossil fuels. The avoided emissions is determined in a manner that the amount of electricity from renewable energy sources, the amount of renewable energy for heating and cooling and renewable energy in the transport, is replaced by fossil fuels and their respective CO<sub>2</sub> emissions.

**Table 6: Estimated GHG emission savings from the use of renewable energy (t CO<sub>2</sub>eq)**

Environmental aspects	2017 Year n-1	2016 Year n-2
<b>Total estimated net GHG emission saving from using renewable energy<sup>28</sup></b>	7157919.51	7270031.30

<sup>27</sup> Report available on: [http://ec.europa.eu/energy/renewables/transparency\\_platform/doc/2010\\_report/com\\_2010\\_0011\\_3\\_report.pdf](http://ec.europa.eu/energy/renewables/transparency_platform/doc/2010_report/com_2010_0011_3_report.pdf).

<sup>28</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.

- Estimated net GHG saving from the use of renewable electricity	1702248.06	1928401.19
- Estimated net GHG saving from the use of renewable energy in heating and cooling	4728506.63	4664101.11
- Estimated net GHG saving from the use of renewable energy in transport	677528.99	727164.82

**11. Please report on (for the preceding 2 years) and estimate (for the following years up to 2020) the 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. (Article 22 (1) l, m) of Directive 2009/28/EC).**

**Table 7: 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 in [Contracting Party] (ktoe)<sup>29, 30</sup>**

	2012 Year n-2	2013 Year n-1	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)	<b>deficit (-)</b>	<b>deficit (-)</b>	<b>deficit (-)</b>	<b>deficit (-)</b>	<b>deficit (-)</b>				

*There is no planned transfer to/from other Contracting Parties, Member States and/or third countries.*

**11.1. Please provide details of statistical transfers, joint projects and joint support scheme decision rules.** If a Contracting Party decided to implement Article 8 and/or 9 of the Ministerial Council Decision it should report on the measures taken to arrange for an independent external audit, in accordance with Article 13 of Ministerial Council Decision.

*There is no planned use of statistical transfers or participation in joint projects and joint support scheme decision rules.*

**12. Please provide information on how the share for biodegradable waste in waste used for producing energy has been estimated, and what steps have been taken to improve and verify such estimates. (Article 22(1)(n) of Directive 2009/28/EC).**

*Please note that in the second progress report (2015 report) Contracting Parties are invited to outline their intentions with regard to the questions addressed in Article 22(3a-c). In addition, Contracting Parties are also welcome to provide any other information considered relevant to the specific situation of developing renewable energy of each Contracting Parties.*

The problems of waste generation and management are many and various. The greatest amounts of waste generated (by weight) tend to be inert substances, construction waste in particular, but the greatest risks are associated with smaller volumes of (mainly industrial) hazardous wastes. Municipal wastes need extensive and expensive collection, transport and disposal arrangements. Special conditions should apply to particular categories, such as clinical wastes. The waste sector presents some of the most significant challenges facing Albania.

<sup>29</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>30</sup> When filling in the table, for deficit production please mark the shortage of production using negative numbers (e.g. -x ktoe).