

Law on Amendments on the Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electrical Energy

<u>Law No. 6094</u> <u>Date Ratified: 29/12/2010</u>

ARTICLE 1- Subparagraphs (8), (9) and (11) of paragraph one of article 3 of the Law on the Utilization of Renewable Energy Resources for Generating Electrical Energy of 10/5/2005 no 5346 are amended as follows, and the following subparagraphs are added into paragraph one and the following paragraph is added into the article.

"8.Renewable Energy Resources (RES): Non-fossil energy resources such as hydraulic, wind, solar, geothermal, biomass, biogas (including landfill gas), wave, current and tidal energy,

9.Biomass: Resources obtained from agricultural and forestry products including vegetable oil wastes, agricultural harvesting wastes as well as from organic wastes, and from the byproducts formed after their processing,"

"11. Renewable Energy Resources within the scope of this Law: The electrical energy generation resources suitable for wind, solar, geothermal, biomass, biogas (including landfill gas), wave, current and tidal energy resources together with hydraulic generation plants either canal or run of river type or with a reservoir area of less than fifteen square kilometers,"

"13.Landfill gas: Gas produced to generate energy from wastes including landfill,

14.RES Support Mechanism: The support mechanism including the principles and procedures concerning the prices and durations that can be utilized by those operating doing production activities based on the Renewable Energy Resources within the scope of this Law and payments to be made to them,

15.MFRC: Market Financial Reconciliation Center,



16.RES total amount: the total amount calculated by multiplying the amount of electrical energy given to the transmission or distribution system by each of those who are subject to the RES Support Mechanism with the prices in the RES schedule in Turkish Liras through the Turkish Central Bank's foreign exchange rate on the date the energy is given to the system,

17.Payment obligation rate: The rate to be used in calculating the amount that the suppliers selling electrical energy to the consumers will be obliged to pay, calculated by dividing the amount of electrical energy sold by each supplier to its consumers into the total electrical energy amount sold by all such suppliers to the consumers,"

"Other terms and concepts in this Law which are left undefined shall have the meanings given to them in the Law on the Electrical Market of 20/2/2001 no 4628."

ARTICLE 2- The second sentence of paragraph one of article 4 of Law no 5346 is amended as follows.

"The procedures and principles for identification, classification, conservation and utilization of renewable resource areas for electrical energy generation shall be specified in regulation after obtaining the opinions of relevant governmental agencies and institutions. Renewable resource areas determined are to be reported to relevant governmental agencies by the Ministry for ex officio marking on the zoning plans."

ARTICLE 3- Article 6 of Law no 5346 and its title are amended as follows.

"RES Support Mechanism

ARTICLE 6- Prices in the Schedule I attached hereto shall be applicable for a period of ten years for production licenses subject to the RES Support Mechanism that are or will be commissioned as from 18/5/2005 when this Law was enacted until 31/12/2015. However, in line with other developments with the foremost being the supply security, the amount, price and times and resources applicable to this Law, shall be determined by the Council of Ministers, provided that they don't exceed the prices given in the Schedule for RES certified production facilities that will be commissioned after 31/12/2015.



Those wishing to be subjected to the RES Support Mechanism in the next calendar year are obliged to obtain RES Certificates and apply to the EMRA (Energy Market Regulatory Authority) until the 31st October.

Time periods projected in the RES Support Mechanism shall commence as from the date of commissioning for those facilities under operation, and as from the date they will be commissioned for those facilities that are not yet under operating. Those subject to the RES Support Mechanism cannot leave the practice in the year they are included in the practice.

A list of those subject to the RES Support Mechanism and information on the commissioning dates, annual electrical energy production capacities and annual production programs of their facilities shall be published by the EMRA (Energy Market Regulatory Authority) until the 30th of every November, based on the types of resources.

The standards that the equipment in electricity production facilities based on solar power are required to satisfy and the testing methods to be applied during inspections, as well as the principles and procedures concerning the inspection of production amounts based on solar power within the electrical energy produced in such facilities, and in hybrid production facilities shall be determined by a regulation to be issued by the Ministry after referring to the EMRA (Energy Market Regulatory Authority) for their opinion.

The MFRC (Market Financial Reconciliation Center) shall announce the RES total amount for each invoice period and determine the payment obligation rate of each supplier. During the determination of the payment obligation rate, the amount of electrical energy produced from the Renewable Energy Resources within the scope of this Law and sold in the market without being subject to the RES Support Mechanism are not included in calculations within the scope herein. The amount that each supplier supplying the consumers with electrical energy is obliged to pay is calculated and invoiced to the supplier in question and the collections made are paid pro rata to the entities that are subject to the RES Support Mechanism. Principles and procedures concerning applications covered herein including the MFRC (Market Financial Reconciliation Center) shall be regulated with a regulation to be issued by the EMRA (Energy Market Regulatory Authority).



The annual production amount to be affixed on the licenses of facilities producing electrical energy from Renewable Energy Resources is the maximum annual amount that such facilities can produce with their existing installed capacity with their resources. And the licenses available on the date this article becomes valid shall be corrected in line with this within three months upon application of concerned parties.

Entities generating electrical energy from Renewable Energy Resources within the scope hereof and not intending to be subjected to the provisions of this article are allowed to make sales in the market within the scope of their licenses."

ARTICLE 4- The following articles are added to follow article 6 of Law no 5346.

"Exempted production

ARTICLE 6/A- Procedures and principles on application, permission, inspection and technical and financial issues regarding production facilities to be established for production based on Renewable Energy Resources as per paragraph three of article 3 of Law no 4628 shall be regulated in a regulation to be issued by the EMRA (Energy Market Regulatory Authority) after obtaining opinions from the Ministry, Ministry of Interiors and the SHW (State Hydraulic Works). Provided that opinions shall be sought regarding the grant of water utilization rights for hydroelectric production facilities, to the effect that no obstacles exist before the construction of the production facility with the relevant rural organization of the SHW regarding the water regime and that connection may be made to the distribution system from the distribution company where the connection will be made, provincial administrations where the facility will be established shall be entitled.



In the event that real persons and entities generating electrical energy from Renewable Energy Resources within the scope of this article shall export their surplus productions to the distribution system, they can benefit from the prices in Schedule I for a term of ten years. To this end, the electrical energy given to the distribution system must be purchased by the relevant distribution company holding the retail sales license. Electrical energy purchased by relevant companies as per this article shall be deemed to be produced and given to the system by the said distribution companies within the scope of the RES Support Mechanism."

"Use of domestic products

ARTICLE 6/B- In the event that the mechanical and/or electro-mechanical equipment used in the production facilities of license holder entities based on the Renewable Energy Resources within the scope hereof and commissioned before 31/12/2015 are manufactured domestically; prices in Schedule I will be added to the prices given in Schedule II, attached hereto, for a term of five years as from the commissioning of the production facility for electrical energy produced and given in such facilities and given to the distribution system.

Principles and procedures relating to the definition, standards, certification and inspection of the scope of domestic production in Schedule II will be regulated by Ministerial regulation to be issued.

Principles and procedures relating to domestic contribution for RES certified production facilities that will be commissioned after 31/12/2015 will be determined and announced by the Council of Ministers upon the Ministry's proposition."

"Other applications

ARTICLE 6/C- Entities licensed to produce electrical energy from Renewable Energy Resources within the scope hereof may install additional capacities provided that they do not go beyond the areas specified in their licenses and they do not exceed the installed capacity specified in the licenses of the capacity given to the system during operation.



Within six months as of the validity of this Law, and until 31/12/2015, each year the transformer centers, where the solar power-based production facilities are, may be connected and their connection capacities will be determined and published by the Ministry, after obtaining technical opinions from the EİEİ (Electrical Works Survey Administration) and the TEİAŞ (Turkish Electricity Transmission Company Inc.,). Connection capacities and transformer centers for years after 31/12/2015 shall be determined and published each year by the Ministry, with the first being on 1/4/2014.

At the stage of making up an opinion for connectivity during evaluation of license applications by the EMRA (Energy Market Regulatory Authority), production facilities based on Renewable Energy Resources within this scope will be given priority.

A measurement compliant with the relevant standards is a must in license applications based on solar power. In license applications made for the establishment of electricity production facilities based on solar power, no additional applications can be made for the same area in the event that the owner of the facility area applies for licensing. In the event of several applications for the same region and/or transformer center, in order to determine the one to be connected to the system with a capacity equal to that of the announced capacity from among the applications, the TEİAŞ (Turkish Electricity Transmission Company Inc.,) shall organize a competition by underbidding of prices projected in Schedule I for application throughout the time periods set in this Law. Principles and procedures regarding the competition shall be organized in the regulation to be issued by the TEİAŞ (Turkish Electricity Transmission Company Inc.,) after obtaining the opinions of the Ministry, EMRA (Energy Market Regulatory Authority) and EİEİ (Electrical Works Survey Administration).

The total installed capacities of production facilities based on RES Certified solar power to be connected until 31/12/2013 may not be over 600 MW. The Council of Ministers will be entitled to determine the total installed capacities of production facilities based on RES Certified solar power to be connected after 31/12/2013.



Controls and inspections of the licenses of production facilities within the scope hereof and other facilities producing and distributing electricity shall be performed by the EMRA (Energy Market Regulatory Authority) or, when necessary, can be caused to be performed by the EMRA (Energy Market Regulatory Authority) by way of purchasing the services of supervision companies, services the EMRA (Energy Market Regulatory Authority) shall authorize, with the costs payable by relevant parties. Principles and procedures regarding practices concerning inspection companies shall be regulated by a regulation to be issued by the EMRA (Energy Market Regulatory Authority) subject to Ministerial opinion."

ARTICLE 5- The first sentence of paragraph three of article 8 of Law no 5346 is amended as follows, and the following paragraphs are added to follow the article.

"Permission, lease, easement and usufruct permission fees shall be eighty-five percent discounted during the initial ten years of investment and operation of power transmission lines including those under operation as of the date of publication hereof, for production facilities based on Renewable Energy Resources within the scope hereof that will be commissioned until 31/12/2015, transportation roads and including those to be transferred to the TEİAŞ and distribution companies until the point of connection to the system specified in their licenses".

"Permission may be granted for the establishment of electrical energy production facilities based on Renewable Energy Resources in national parks, nature parks, nature monumental and nature preservation sites, preservation forests, wildlife promotion sites, and special environmental preservation site provided that an affirmative opinion of the Ministry, or of the regional conservatory board in the case of natural conservation areas, is obtained.

Provisions of Supplementary Article 2 of the Law on the Amendment of the Law on the Utilization of Real Properties Held by the Treasury and Value Added Tax of 29/6/2001 no 4706 shall not be applicable for electrical energy production facilities based on Renewable Energy Resources within the scope hereof".



ARTICLE 6- Article 10 of Law no 5346 is amended as follows.

"ARTICLE 10- Provisions of article 11 of Law no 4628 shall apply for those operating in violation of articles 6 and 6/A hereof."

ARTICLE 7- The following provisional article is incorporated into Law no 5346.

"PROVISIONAL ARTICLE 5- Regulations projected to be issued as per articles 6, 6/A, 6/B and 6/C hereof shall be published within three months as of the enactment of this article. Those intending to be included into the RES Support Mechanism in 2011 must apply to the EMRA (Energy Market Regulatory Authority) in order to obtain a RES Certificate within one month following the publication of regulations projected for issuance in articles 6, 6/A, 6/B and 6/C. A list of those included into the RES Support Mechanism in 2011 shall be published by the EMRA (Energy Market Regulatory Authority) within one month as of the reception of applications."

ARTICLE 8- This Law shall become valid on the date of its publication.

ARTICLE 9- The provisions of this Law shall be executed by the Council of Ministers.



| | Schedule I |
|---|---|
| Type of Production Facility Based on Renewable Energy Resources | Prices Applicable (US Dollar cent/kWh) |
| a. Hydroelectric production facility | 7.3 |
| b. Wind power based production facility | 7.3 |
| c. Geothermal power based production facility | 10.5 |
| d. Biomass based production facility (including landfill gas) | 13.3 |
| e. Solar power based production facility | 13.3 |

| Schedule II | | |
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| Type of Facility | Domestic Production | Domestic Contribution (US Dollar cent/kWh) |
| A- Hydroelectric production facility | 1- Turbine | 1.3 |
| | 2- Generator and power electronics | 1.0 |
| | 1- Wing | 0.8 |
| B- Wind power based production facility | 2- Generator and power electronics | 1.0 |
| | 3- Turbine tower | 0.6 |
| | 4- All of the mechanical equipment in rotor and nacelle groups (excluding payments made for the wing group and the generator and power electronics.) | 1.3 |
| | 1- PV panel integration and solar structural mechanics production | 0.8 |
| C- Photovoltaic solar power based production facility | 2- PV modules | 1.3 |
| | 3- Cells forming the PV module | 3.5 |
| | 4- Invertor | 0.6 |
| | 5- Material focusing the solar rays onto the PV module | 0.5 |
| | | |



| | 1- Radiation collection tube | 0.4 |
|--|--|-----|
| ı | i i tadiation concentri tabe | 2.4 |
| L | 2- Reflective surface plate | 0.6 |
| D- Intensified solar power based production facility | 3- Sun chasing system | 0.6 |
| | 4- Mechanical accessories of the heat energy storage system | 1.3 |
| | 5- Mechanical accessories of steam production system that collects the sun rays on the tower | 2.4 |
| | 6- Stirling engine | 1.3 |
| | 7- Panel integration and solar panel structural mechanics | 0.6 |
| | | |
| L | 1- Fluid bed steam tank | 0.8 |
| | 2- Liquid or gas fuel steam tank | 0.4 |
| | 3- Gasification and gas cleaning group | 0.6 |
| E- Biomass power based production facility | 4- Steam or gas turbine | 2.0 |
| production facility | 5- Internal combustion engine or Stirling engine | 0.9 |
| | 6- Generator and power electronics | 0.5 |
| | 7- Cogeneration system | 0.4 |
| | | |
| F- Geothermal power based production facility | 1- Steam or gas turbine | 1.3 |
| | 2- Generator and power electronics | 0.7 |
| | 3- Steam injector or vacuum compressor | 0.7 |
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