

GLOBAL RENEWABLE ENERGY Guide

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GEORGIA



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GENERAL

1. What is the nature and importance of renewable energy in your country?

The main nature and importance of renewable energy in Georgia is that, first of all, the Unified Energy System of the country's renewable energy resources will be more solid and sustainable and it will strengthen the country's energy independence and electricity imports will continue to be reduced. Secondly, renewable energy is environmentally clean electricity production and the thirdly, alongside with technological developments, the costs for wind and solar power stations are constantly being reduced, which makes the electricity produced by such stations even more competitive on the market.

The Ministry of Energy of Georgia is actively and vigorously working in the direction of renewable energy. Georgia is rich in hydro resources and the rational utilization of water resources and increasing of level of country's energy independence is the main priority of Georgia's energy policy. However, in addition to water resources, a great deal of attention is paid to a) utilization of wind power and increasing its capacity from 20 MW to 200

MW; and b) study of the potential of solar energy. As an example we want to mention is that in 2015, the country will have commenced construction of the first 20 MW wind power plant - "Kartli" which is the first pilot project financed by the state. The investment cost is 30 million US dollars. The annual output of the wind power plant will be 87 million kilowatts. Currently, the study of wind power project feasibility has been completed and the construction of the turbines and the construction works of the project for the preparation of tender documents is ongoing.

In general, Georgia has an important wind energy potential, which is estimated to be able to generate up to 4 billion kilowatt-hours annually. By the natural energetic potential, the territory of Georgia is divided into four zones:

1. A high speed zone - mountainous regions of Southern Georgia, Kakhaberi Vake and the central region of Kolkheti Valley. The working duration period is more than 5,000 hours per year.
2. A partly high speed and low speed zone - the Mtkvari gorge from Mtskheta to Rustavi, Southern part of Javakheti, Black Sea line from Poti to Kakhaber Vake. The working duration is 4,500-5,000 hours per year.

3. A low speed mountain range effective exploitation zone - Gagra mountain range, Kolkheti Valley and Eastern Georgian lowlands.
4. And a low speed mountain range limited exploitation zone - Iori Zegani and Sioni water reservoir.

Research conducted on the territory of Georgia revealed suitable areas for the construction of wind power stations.

Wind power engineering now has the most competitive energetic technology.

Location	Capacity (megawatts)	Annual energy generation (million kilowatts-hour)
Poti	50	110
Chorokhi	50	120
Kutaisi	100	200
Mta-Sabueti I	150	450
Mta-Sabueti II	600	2000
Gori-Kaspi	200	500
Paravani	200	500
Samgori	50	130
Rustavi	50	150
Summary	1450	4160

According to the Georgia's geographic location, solar radiation is effective and long and varies from 25 to 280 days. It amounts to 1,900-2,200 hours per year. Solar energy potential in Georgia is estimated at 108 MW annually, which is equivalent to 34 thousand tons of standard fuel.

2. What is the definition and coverage of renewable energy under the relevant legislation?

According to the Law of Georgia Electric Power and Natural Gas¹ dated 27 June, 1997, Renewable Energy Sources are non-fossil, sustainable energy sources arising from, but not limited to: bio and hydro energy, geothermal, solar, wind and sea (including stream, wave and thermal) energies. Thus, there are the following specific types of renewable energy:

- Bio-energy;
- Hydro energy;
- Geothermal energy;
- Solar energy;
- Wind energy;
- Sea (stream, waves and thermal) energy.

REGULATION

3. How is the renewable energy sector regulated? What are the principal laws and regulations?

According to the Law on Electric Power and Natural Gas, dated 27 June 1997, the Ministry of Energy of Georgia is in charge of working out principle directions in the energy policy field (including the renewable energy sector). It also ensures implementation of the policy and creation and adoption of the relevant legal framework. At the same time, one of the main functions of the Ministry is supporting the diversification of energy sources and promotion of utilization of renewable

¹ Georgian Law on Electric power and Natural Gas, Article 2, paragraph Z ²⁹

(alternative) resources² which are linked to the increase of production efficiency. According to the resolution №97 of the Government dated 16 April 2013 “on the Approval of Regulations of the Ministry of Energy”, the Ministry performs the monitoring of implementation state policy, state strategy and state programs in the field of energy. In addition, the Ministry ensures the coordination of their performance supervises the implementation process and works out necessary recommendations. The Ministry supports the attraction of investments in the energy sector and takes necessary actions within its competence.

As for the regulation of the energy sector (including renewable energy), it is performed by the state regulatory body - the Energy and Water Regulatory Commission (hereinafter - the "Commission"), the status and purpose of which shall be detailed below. The legal basis for the activities of the Commission are the Constitution, international treaties of Georgia, the Law on Electric Power and Natural Gas, the Commission's regulations and other legislative acts. The regulatory powers are carried out by the following methods:

- Through setting the rules and terms for electricity generation, transmission, and distribution of the energy produced by utilizing renewable energy sources;
- Through licensing of electricity generation, transmission, and distribution of the energy produced by utilizing renewable energy sources which includes: issuances of licenses, making changes thereto and invalidation thereof;
- Through regulations and setting the tariffs for generation, transmission, distribution, dispatching, transit, import and use of electricity;
- Through implementing the measures for the supervision over the observance of licensing terms in energy sector (including the energy generated through the renewable energy resources) and taking the measures prescribed by the law for the breach of the terms above;
- Through the settlement of disputes between the licensees, power plants, importers, exporters and the market operators within its competence;
- Through the promotion of enhancing the efficiency of power generation, transmission, distribution dispatching, transit, import, export and consumption.
- The main legislative and normative acts regulating this field are the following:
 - The Law of Georgia on Electric Power and Natural Gas, dated June 27, 1997;
 - The Law of Georgia on National Regulatory Bodies, dated 13 September 2002;
 - The Law of Georgia on Licenses and Permits, dated 24 June 2005;
 - Resolution No. 97 of the Government of Georgia On the Approval of Regulations of the Ministry of Energy dated 16 April 2013;
 - Resolution No. 107 of the Government of Georgia on the Approval of "State Program Renewable Energy 2008" – On the Approval of the Rules for Ensuring the Construction of New Sources of Renewable Energy in Georgia, dated 18 April 2008;
 - Order of the Ministry of Energy No. 39 on the Approval the Ten-Year Plan of the Development of the Transmission Network, dated 8 April 2015;

² Georgian Law on Electric power and Natural Gas, Article 3, paragraph 1, subparagraph K

- Resolution No. 6 of the Energy and Water Regulatory Commission on the Approval of Regulations of the Energy and Water Regulatory Commission, dated 6 March 2014;
- Resolution No. 23 of the Energy and Water Regulatory Commission on the Approval of Rules for Control and Licensing in the Sector of Electric Power, Natural Gas and Water Supply, dated 18 September 2008.

4. What are the principal regulatory bodies in the renewable energy sector?

According to the Georgian applicable legislation, the Ministry of Energy works out the main directions of state policy in the field of energy and ensures implementation thereof while the regulatory body is the Commission, the legal grounds of activities which have been outlined above.

The Commission is authorized to issue licenses in the electricity sector, as well as to regulate the activities of the licensees, importers, exporters, market operators and suppliers, including the right to monitor the energy markets.

The Commission issues the normative administrative legal act - the resolution. The Commission consists of 5 members. The session of the Commission is valid if attended by at least 3 members. The candidate members are proposed to the Parliament by the President upon the agreement with the Government. The Parliament elects the members by the majority. Commission members are elected for 6 years. The Commission is headed by the chairman, who is also elected by the Parliament of Georgia by majority of votes.

5. What are the main permits/ licenses required for renewable energy projects?

Generally, according to the applicable law³, there are four types of licenses in the electric power industry:

- Electricity generation license;
- Electricity dispensation license;
- Electricity dispatch license;
- Electricity distribution license.

Briefly about the license for generation of electricity:

The procedures and conditions for licensing were established by Resolution No. 23 of the Commission, dated September 18, 2008.

I. General rule of issuance of license

An electricity production license is issued by the Commission. The license is granted for an indefinite period of time (lifetime).

II. Grounds for obtaining of license

The applicant shall submit to the Commission a written statement in accordance with the form established by the Commission. The application shall cover all the mandatory points.

A statement must be submitted in compliance with the requirements under Article 78 of General Administrative Code of Georgia. It shall indicate the type of license requested and the list of the documents annexed to the application.

³ Energy and Water Regulatory Commission decree No. 23 activity Control and Licensing Regulation of electric power, natural gas and water supply sector dated September 18, 2008

The application shall include the following:

- a) Extract from the Registry of Commercial and Non-Commercial Legal Entities;
- b) List of fixed assets of the company and audit assessment thereon;
- c) Document confirming ownership title and/or right to use of the fixed assets, extract from the Public Registry, cadastral map (to determine the scope of the license);
- d) Report of Technical and Construction Inspection Agency confirming the compliance of the technical facilities with current state standards and norms;
- e) Technical conditions for connection to the network:

e.g. technical conditions issued by the owner of the transfer license (except for the dispatching license) which is necessary for connecting to the electric power network of Georgia; in case of connecting to the distribution network, the technical conditions from the distribution company;

- f) Scheme of electric energy or gas network (except for the dispatching license).

III. Rules for Issuance of License

The Commission examines the compliance of the application and documents submitted by the license applicant with the established requirements within 3 days.

Upon the admission of the application the Commission shall publish a public announcement for the submission of documents.

Within 20 days from the moment of making the announcement on public submission, any person may provide a written opinion.

The Commission must conduct an oral hearing regarding the opinions presented within 7 days

from the moment of expiry of the deadline for the submission of opinions.

The Commission makes a decision on granting or refusal to issue a license. In case of a refusal to issue a license, the Commission must immediately notify the applicant of the reasons for refusal to grant the license requested.

The Commission shall make a decision on issuance of license within 30 days of submission of the application. If the decision is not taken within the mentioned term, the license shall be considered to be issued.

6. Is there a category of “license-exempt generation”? If so, does it cover some types of renewable energy based generation?

According to the applicable legislation⁴, the power plants generating under 13 MW of electric power are exempted from obtaining a license subject to issuance of a normative administrative legal act granting the authority to generate electric power.

INCENTIVES

7. Are tax advantages available to renewable energy generation companies?

There are no substantial tax reliefs for the renewable energy sector. As a rule, exports are exempt from VAT.

⁴ The applicable legislation includes: (i) Law of Georgia on Electric Power and Natural Gas, Article 2, Subparagraph Z⁶; and (ii) Energy and Water Regulatory Commission decree No. 23 activity Control and Licensing Regulation of electric power, natural gas and water supply sector dated September 18, 2008, Article 2, Paragraph 3, Subparagraph A.

Also, starting from January 1, 2011 until January 1, 2016, the electricity and guaranteed power (such as thermal power) supply, except for the supply of electricity to consumers (defined by the Law of Georgia on Electric Power and Natural Gas) as well as transmission and/or dispatch services shall be VAT exempt with the right to deduct.

8. Is there a purchase guarantee given by the relevant legislation for the electricity generated by renewable energy companies?

According to the Georgian applicable legislation there is no such guarantee.

9. Is there a minimum price guarantee given by the relevant legislation for the electricity generated by renewable energy companies?

According to the Georgian applicable legislation⁵, for power stations (including for the hydro energy power plants) built after August 1, 2008, the power generation tariffs are not regulated. The new hydro energy power plants have the right to perform trade with electric power with free (deregulated) tariffs. For the sale of electricity generated by hydro energy power plants which were built before August 1, 2008 the upper limit of the tariff is determined by the Commission. There is an exception to the rule described above which is established by the Resolution of the No. 107 of the Government dated April 18, 2008. In particular, the above-mentioned act sets the mandatory requirements for the construction, operation and use of any energy plant being within the scope of the State Program:

- Within 10 years from the moment of the commencement of operation of the power

plant, each year during the winter period for the 3 months agreed by the memorandum, the full amount of electricity generated shall be sold only to ensure domestic consumption;

- Within 10 years from the moment of the commencement of operation of the power plant, each year during the winter period for the 3 months agreed by the memorandum, upon the choice of the relevant person, the sale will be implemented to any customer in Georgia for free (regulated) tariff, and/or to ESCO in accordance with the guaranteed purchase agreement where the tariff shall be determined in accordance with applicable law.

10. Has the Kyoto Protocol been ratified? What is the general regime for carbon credits?

Yes, Georgia ratified the Kyoto Protocol on May 28, 1999 by Resolution No. 195 of the Parliament of Georgia. The mentioned Resolution has been in force since February 16, 2006. In addition, the amendments made to the Kyoto Protocol on March 6, 2007 have also been ratified by the Parliament on February 22, 2011 by Resolution No. 4247-IS.

11. Do the renewable energy based power plants have priority for connection to the grid?

Under the current legislation, the priority for connection to the grid by the renewable energy has not been established / specified.

12. Is there an incentive for domestic (local) manufacturing of equipment or materials used in the construction of renewable energy based power plants?

The Georgian legislation does not provide such incentives.

⁵ Law of Georgia on Electric Power and Natural Gas, Article 49³

13. What are the other incentives available to renewable energy generation companies?

There are no other incentives available to renewable energy generation companies, except for those as described above.

STATISTICS

14. What is the percentage of electricity generated based on each type of renewable energy source in the total generation of electricity on a country wide scale?

As already mentioned, neither wind nor solar power plants are currently operating in Georgia. In fact, the only type of renewable energy generation currently performed in Georgia is through hydro power plants. It should be noted that according to the per capita water resources, Georgia is in world's top five countries. However, only 18% of the rivers capable of generating electricity are actually being utilized so far. Capacities of hundreds of rivers (out of 26,000 rivers in Georgia) with the potential of 20 TW/h still remain unused.

In recent years the share of hydro energy in the total electric power generation has been growing steadily: from 85% in 2004 to 92% in 2012. Since 2006, electricity production from hydropower plants increased by almost 40% while the heat power plants decreased by 55%. The Government aims at fully replacing heat power generation with 100% of electricity power from renewable resources in the near future.

Currently, Georgia operates 13 licensees and 25 small power plants. Among them only "Engurhesi" LLC and "Vardnlihesi" LLC remain under state ownership. The country's total installed capacity is up to 3,300 MW, while the average annual output amounts to 10 billion kW/h, of which 92% comes from hydroelectric power plants. 90% of the domestic demand on electricity is satisfied by the existing hydroelectric power plants. After the commencement of operation of the new power plants, this figure will increase to 100%. Four hydroelectric power plants went into operation in 2014. Among them is the "Paravani HPP" with an installed capacity of 87 MW. In the same year, there have begun the construction of two new plants and 25 memorandums have been signed concerning the development of the additional 32 projects.

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