



Georgia's Energy Policy

Overview of Main Directions

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Introduction

On June 7, 2007, the Parliament of Georgia adopted the Resolution on Main Directions of Georgia's State Energy Policy, which explains the concept of the state energy policy and sets out the ways and means of its implementation. Parliament's Resolution is based on the Law of Georgia on Electricity and Gas (adopted in 1997) and includes research findings and on perspectives of the development of Georgia's energy policy and the public policy carried out since Georgia's independence.

With the participation of Georgian energy specialists and foreign experts, several studies have been conducted in Georgia on the implementation of an effective energy policy and insuring energy security. Many of these studies were published and are accessible to interested readers in the Georgian language. For example, in 2002-2003, Georgia's Strategy for Energy Security was developed under the editorship of Professor Chomakhidze; Georgia's Energy Strategy, a collective study of well known Georgian scientists and experts, was published in 2004; in 2005 upon request of the new government of Georgia, an expert group created with the Ministry of Energy started working on Georgia's Energy Strategy, which was completed in 2006 (this strategy has not been published yet).

In 2006, the United States Agency for International Development (USAID) funded a study on Georgia's Gas Security Strategy, consisting of two parts. The author of the first part is American Expert Paul Balonov. The second part was written by Georgian Expert Teimuraz Gochitashvili. Many studies have been carried out and focusing on ways to develop the general sector and assessing specific components. Parliament's Resolution, however, is not based specifically on these studies.

Chapter 1. Georgia's State Energy Policy: Objectives and Means to Achieve Them

The introduction of the Parliament's Resolution sets out the main objectives of Georgia's state policy in the energy sector and describes the means to achieve them. These objectives and means can be separated into several blocks:

1.1 Objectives

- Full satisfaction of the industrial and communal demand on electricity by maximum utilization of local hydropower resources in the electricity sector first using imported electricity and later substituting electricity generated from imported gas. In this regard the priorities are (1) full technical upgrade of outdated energy units and infrastructure (hydroelectricity power stations, transmission lines, etc.) and (2) creating new, modern units and infrastructure.





- Development of alternative energy sources (wind, solar, and geothermal energy), according to Georgia's specifics;
- Diversification of electricity and gas supply sources;
- Inclusion of the country's energy sector into the regional infrastructure – its participation in region wide export-import operations. For this purpose, existing electricity transmission lines and gas pipelines have to be repaired or new ones must be constructed;
- Development of an energy corridor connecting Europe to Asia, which has to encompass West-East (from Caspian to the Black Sea to the European Union), as well as North-South directions.¹

1.2 Means

According to the Parliament's Resolution, achieving the main objectives set out in Georgia's energy sector requires the development of a commercially profitable economic model of this sector. One important stage of transformation to this model is the privatization of existing electricity generation and electricity and gas distribution companies, which should facilitate healthy competition in the energy sector and attract investments. The following are the necessary preconditions for attracting private investments in the energy sector:

- By simplifying licensing and other bureaucratic procedures, creating a favorable business environment for local and foreign companies that are interested in investing in the sector;
- Gradual liberalization and deregulation² of the electrical energy market, which ultimately will be reflected in direct contracting between wholesale electricity producers and wholesale buyers;
- Introduction of new market rules insuring the separation of rights and obligations and responsibilities among actors in the sector;

The Resolution additionally explains that achieving the main objectives of Georgia's state energy policy requires an appropriate legal foundation with relevant laws, legal acts, resolutions, and ordinances.

Chapter 2. Directions of Georgia's State Energy Policy according to Priorities³

2.1 Increasing Energy Efficiency

The body of the Parliament's Resolution presents the main directions of Georgia's state energy policy as priorities. According to the Resolution, one of the main priorities of state energy policy is to increase energy efficiency, which envisions energy saving.⁴

¹ Concept of North-South transit corridor must mean development of Iran-Armenia-Georgia Black Sea ports – EU energy corridor. However, this issue is not formalized in either this or other documents.

² During deregulation price is not set by independent National Regulatory Commission. The price is determined in the result of agreement in the process of negotiations between producers and consumers.

³ It is meant that Main Directions of State Energy Policy in the Parliament's Resolution are discussed according to priorities

⁴ The Resolution states that implementation of an energy efficiency policy requires creation of the relevant legislative and institutional framework.





The main objective of the energy efficiency policy is (1) to decrease energy consumption and energy waste in industrial and communal spheres and (2) to research and implement measures necessary for introducing co-generation⁵ systems and usage of renewable energy resources.

The opportunity to introduce co-generation systems while generating electricity with gas is important and is tied to increasing heat efficiency. The heat generated during the burning of gas, rather than get wasted, is used for heating nearby buildings. However, there is no similar connection between energy efficiency and research on renewable energy resources. The Resolution does not provide additional explanations on this issue. In addition, after adoption of the Resolution, which indicates that it is necessary to create the appropriate legal and institutional framework for implementing the energy efficiency policy, the government has not adopted a single additional legal act on this issue.

The web-site of the Ministry of Energy does not mention the energy efficiency policy among its main directions (mission of the Ministry) or activities. Keeping this in mind, it can be assumed that despite the fact that Parliament's Resolution names energy efficiency as a priority, the authorities have neither developed a comprehensive plan outlining how the energy efficiency policy should be carried out nor do they consider its implementation to be necessary at this stage.

Regarding the non-governmental sector, in 2004 Georgian energy experts prepared a collective study called Georgia's Energy Strategy⁶, in the Georgian language, which placed important emphasis on energy efficiency. The authors of the study believe that "such high energy capacity in Georgia's Gross Domestic Product is a serious hindering factor for production of competitive commodities."⁷ According to the authors, together with other measures, one of the ways to increase the country's energy efficiency is to transform the internal economic structure into small energy capacity branches and service spheres.

Discussion on how high energy efficiency can be achieved is needed and necessary for the country, especially given that one of the main directions of the EU is insuring energy security. According to the EU, it should be reflected in increasing energy efficiency through effective implementation and introduction of new, less energy consuming technologies.

An energy efficiency center has been functioning in Georgia since 1998, when it was funded by the EU (through the TACIS project). However, due to the lack of institutional and legal framework, studies produced by the energy efficiency center are treated as recommendations and do not have a real influence on Georgia's energy efficiency policy.

It is important to launch a wide public information campaign on what positive impact energy efficiency will have on the population and on the budget of the country in medium and long-term perspective.

2.2 Energy Security

According to the Parliament's Resolution, another priority of the state energy policy is to insure the country's energy security. The following measures are foreseen in this regard:

⁵ Co-generation is usage of heat produced by natural gas during the generation of electricity for heating water. The heat generated is used to heat building in the nearby territory

⁶ The authors of the study are D. Chomakhidze, R. Tevzadze, R. Arveladze, R. Eristavi, T. Gochitashvili, and others.

⁷ This means that the energy costs in the production of each unit of a product in Georgia are very high.





2.2.1. Rehabilitation of existing hydro and thermal power stations; rehabilitation of existing transmission lines, central and distribution pipelines; restoring transmission lines connecting country's energy systems with those of neighboring countries and pipelines; maximum support to expanding consumption of natural gas (including in cars);

2.2.2. Construction of new hydropower stations, internal lines, and transmission lines connecting to neighboring countries and gas pipelines, and high voltage transmission lines connecting to the West-East parts; functioning of Georgia's energy systems in parallel regime with the systems in neighboring countries; substitution of imported electricity and electricity generated at heat generating power stations (on the basis of imported natural gas) with locally produced resources and usage of alternative energy sources (if traditional and alternative energy sources are put in equal conditions);

2.2.3. Expansion of Trans Caspian energy corridor;

2.2.4. Construction of aboveground and underground storage facilities (natural gas storage);

2.2.5. Geological research and studying of local oil and gas beds; increasing exploitation rates from existing beds; exploitation of economically profitable coal beds and researching possibilities for generating electricity from coal resources using new technologies;

2.2.6. Imposing the obligation on existence of reserve capacities;⁸ All wholesale vendors will be obliged (a) to have reserve capacities of no less than a specific amount of its consumption and (b) in several years (gradually) to move toward using locally produced resources (for example, in 2006-2009 a wholesale vendor should have a reserve capacity of no less than 10% of its consumption and it can be using locally produced, as well as imported resources; however, in 2016-2019 a wholesale vendor should have a reserve capacity of no less than 15% of its consumption and it should entirely rely on locally produced resources).

There are several questions regarding the above-mentioned measures for insuring energy security. In particular:

- If (1) the intention of the statement in the introductory part of the Parliament's Resolution is right that Georgia has to become energy self-sufficient country, (2) the main direction of the country's energy policy is efficient usage of energy resources, and (3) substitution of electricity produced from imported energy and natural gas with locally produced electricity, then in which direction should the increase in consumption of expensive, imported natural gas be facilitated?⁹
- Georgia has gas pipelines connecting to neighboring countries: two pipelines with Russia, two pipelines with Azerbaijan, one with Armenia, and another one with Turkey (South Caucasian pipeline). It is still not known, to which additional country (or countries) the pipeline is planned to connect. Keeping in mind the existing demand on gas in Georgia, there is no need for construction of new gas pipelines to neighboring countries therefore this issue requires grounded justification. Independent expert T. Gochitashvili does not

⁸ Having reserve capacity is necessary for insuring the country's energy security.

⁹ See Chapter 2 of this document on Energy Efficiency, point 5 on supporting the increase in gas consumption.





confirm that construction of a new gas pipeline to any neighboring country of Georgia is being actively discussed.

- It is a known fact that producing energy from non-traditional energy sources (wind, solar, biomass, and biogas) is a widespread practice in the world, especially in the countries of the EU. Energy produced from non-traditional sources is environmentally clean and renewable, although it requires quite high investments and its introduction needs to be based on a well thought out stimulating state policy. If traditional and non-traditional energy resources were equal (as foreseen by the Parliament's Resolution), non-traditional sources in Georgia will have fewer future prospects and such a policy will not facilitate an increase in the usage of non-traditional energy sources. This shortcoming was to some extent corrected by the June 8, 2007 additions to the Law on Electricity and Gas, according to which a commercial operator¹⁰ of the system is obligated to purchase electricity generated from non-traditional energy sources with the long term tariff established by the Regulatory Commission.¹¹
- Construction of aboveground and underground gas storage facilities is quite expensive and, accordingly, this work has to be commercially well justified. If authorities are planning to decrease consumption of gas by increasing energy efficiency and moving into usage of local resources, it might be better to refrain from constructing expensive gas storage facilities and rather focus on renting existing storages in neighboring countries.

2.3. Third Party Access to Electricity Distribution Lines and Distribution Networks

Parliament's Resolution names third party access to electricity distribution lines and distribution networks as one of the most important components of the energy policy. Allowing third party access means that in case of payment of an established tariff, a licensee of distribution or/and transmission has to transmit through the network (in case of gas – through the pipeline) electricity or gas on behalf of all those entities, who are authorized by law to supply electricity (or gas) to direct consumers. Necessary access of the third party creates the opportunity for a consumer to choose the desired supplier (considering conditions offered by different suppliers).

According to this provision, in 2006-2009 all consumers with an annual consumption of no less than 30 million KW per hour should have access to transmission and distribution networks. The amount will gradually decrease and by 2023 all consumers with annual consumption of 1 KW per hour will have access to distribution networks. In this way consumers will exercise the right to choose the most desirable supplier.

Electricity will be transmitted from the independent regulator with the tariff established for that particular moment.

2.4. Metering

Parliament's Resolution gives state policy importance to transformation of communal metering to individual metering.

¹⁰ The commercial operator of the system conducts electricity purchase/sale operations.

¹¹ Law of Georgia on Oil and Gas, Chapter III, State Policy in Oil and Gas Sector, Article 3, point m.





Initially, communal metering occurred in contradiction with the interests of consumers and human rights in general. The practice of communal metering and the fact that converting to individual metering is a state policy reveals the low level of the development of the country's energy sector. However, it is important that this issue receive appropriate attention and be regulated in a timely manner. It is unjustified to make consumers pay for a portion of the total of electricity consumed, rather than the electricity consumed directly by him/her. The communal approach means that consumers are sharing costs with their neighbors and even local enterprises in some cases.

The Resolution does not mention any deadlines for completing mandatory individual metering.

2.5 Attracting Local and Foreign Investments

The Resolution outlines the following measures to be taken for the purpose of attracting local and foreign investment: (1) Simplifying licensing and issuing of permission in the energy sector, (2) deregulating hydropower stations built after January 2007, (3) waving energy units of privatization from old debts, (4) holding privatization in a transparent way, and (5) separating the rights and obligations of privatization parties.

Many things have to be done to achieve these objectives. At this stage, it can be said that privatization units have, in fact, been freed from old debts (United Distribution Company was sold in this way). However, no hydropower stations were built in 2007, so it is not possible to say whether the point on deregulation was met. Sale of the United Distribution Company did not happen in a transparent environment (people still do not know who really owns Energy-Pro). There is no talk about the separation of the rights of privatization parties. When it comes to simplification of licensing and issuance of permits, Georgia's energy market is a monopoly.

For the purpose of encouraging investments, on June 30, 2006 the President of Georgia signed the Law on Facilitating Investments, which aims at supporting investments by simplifying necessary procedures and creating an additional favorable investment regime. The Government of Georgia insures that state support to investments and the official representative of the government in this sphere is the National Investment Agency of Georgia. This Agency is authorized to be the representative of an investor in relations with administrative bodies and other persons. The framework of representation is determined by an agreement signed between an investor and the Agency. Unfortunately, during this study it was not possible to find out whether the Investment Agency had played any positive role in the process of selling the United Distribution Company to Energy-Pro Georgia.¹²

2.6 Economic Sustainability of Energy Sector

Parliament's Resolution considers the development of a commercially profitable economic model of the sector as one of the means of achieving the main objectives in Georgia's energy sector. One of the important stages of moving into this model is the privatization of existing power generation, as well as electricity and natural gas distribution companies. However, the Resolution also mentions that to avoid market monopolization, a person or group of persons does not have the right to purchase more than 70% of power generation and distribution.

¹² The web-site of the National Investment Agency has no information about this.





In addition to privatization, this part of the Resolution focuses on liberalization of the energy and gas market and gradual deregulation, which should be followed by the direct contracting between electricity producers and wholesale buyer companies and full activation of the electricity and gas market rules.

So far the electricity and natural gas markets are regulated by the independent regulatory commission, and relations between producers, transportation companies, and consumers are regulated by the rules of the electricity and natural gas market. These rules were developed and adopted in 2006 on the basis of negotiations and agreements among the participating parties of the process.

Chapter 3. Tariffs

Georgia's National Energy Commission sets tariffs for power generation, transferring, dispatch service, distribution, transmission, import, and consumption; also tariffs for transportation, distribution, and consumption of natural gas. Licensed companies set tariffs on the basis of calculations of presented capital, production, transportation, dispatch service, transfer, and distribution costs plus marginal profit.¹³

The main aim of setting tariffs is to protect consumers from monopoly prices, but this process also insures the existence of possibilities for long-term and sustainable financial and technical development of the energy sector. Accurate and fair tariffs insure the protection of consumers' interests (so that they are not charged a monopoly price) at the same time that they preserve the ability of energy companies to cover their costs, mobilize necessary funds for reinvestments, and receive profits.

There are several types of tariffs: seasonal, peak (day and night), ascending (calculated according to the consumed amount), long term pre-fixed, and marginal. Applying seasonal (winter/summer) and peak (morning/evening especially in winter months) tariffs should not be mandatory and should be set upon agreement between a seller and a buyer. Usage of an ascending tariff calculated according to the consumed amount or long term pre-fixed tariffs (applied to expensive renewable resources, solar, wind, biogas, and geothermal) is mandatory for all sellers and consumers¹⁴ of electricity, except for consumers using communal meters.

Today Georgia has ascending tariffs for electricity and marginal tariffs for natural gas. According to the Parliament's Resolution, the electricity generation tariff has to be gradually regulated and it should reflect different values of service for different categories of consumers. It is difficult to interpret this portion of the resolution. In general, more consumption means less cost for service. In developed countries, tariffs for large energy consuming enterprises are much lower than for families, which consume less but require higher distribution expenditures.

The Law of Georgia on Oil and Gas, which was the basis for Parliament's Resolution adopted on June 7, 2006, gives a special role in energy regulation to the Independent Regulatory Commission of Georgia. The Resolution itself says that one of the necessary conditions for optimal management of energy should be deregulation of energy production and supply. Deregulation, certainly means cutting the functions of the Regulatory Commission as well. Deregulation of the

¹³ This issue is discussed in details in a separate report on tariffs.

¹⁴ Such is international practice.





electricity and natural gas market should be followed by direct contracting between energy producers and suppliers. By now, electricity generated by hydropower stations with a capacity of less than 10 megawatts has already been deregulated.¹⁵ The supply of natural gas is also partially deregulated.

Chapter 4. Bilateral and Regional Cooperation

The energy systems of the Caucasus countries formerly belonged to the unified energy system of the Soviet Union and enjoyed free transmission of energy resources, electricity, and gas. Currently, according to the Parliament's Resolution, the most important objective of Georgia's energy policy is the creation of an energy space with South Caucasus countries, Northern Caucasus, Turkey, and Iran to make it possible to exchange electricity with these countries, as needed.

Therefore it is necessary to establish long-term cooperation with electricity system operators in these countries, which will facilitate export-import and transit of energy resources. Creation of a common energy market also requires harmonization of the relevant legislative base, which is only a declared policy so far.

The Georgian authorities place particular importance on maximizing the benefits of the country's geo-strategic location and creation of the West-East and North-South energy corridor. Parliament's Resolution places paramount political importance on further deepening the country's transit function. However, today there is no detailed vision of what specific role Georgia can play in this regard or how it can fulfill this function.

Conclusion

The Resolution of the Parliament of Georgia reflects the existing level of state energy policy and outlines development perspectives. Analysis of this document shows that it is not detailed enough and in some cases even contains contradictions, namely:

1. **Natural Gas:** If the main objective of the country is to create a self-sufficient energy sector and to focus on local resources, it is not clear why the state should support the expansion of consumption of expensive imported natural gas. In addition, if the country is planning to decrease consumption of imported natural gas, how justified can the construction of an expensive gas storage facility be, especially given that if the regional energy system is to be integrated, it would make it possible to rent gas storages in neighboring countries.
2. **Alternative Non-traditional Energy Sources:** With the exception of wind energy generation, the common energy balance does not include the possibility¹⁶ of using any other type of alternative source (solar, geothermal, or biogas). Although production of biogas is

¹⁵ According to the information of the Independent Regulator, owners of hydropower stations with a capacity less than 10 megawatts are not happy with deregulation and they have attempts to move their generation into the regulatory framework.

¹⁶ Here the discussion is about a ten-year plan to develop Georgia's electricity market, which was developed in 2006 by the Ministry of Energy.





expensive, a country that wants to develop tourism at a fast pace should have a good idea about the possibility of using animal and household waste and producing biogas and clean fertilizers. Using animal and household waste and generating from it biogas and clean fertilizers is necessary from a sanitation and environmental perspective.

3. **Traditional Energy Sources (Wood):** Today there are no calculations on what segment wood occupies in Georgia's energy balance. Its role and consumption possibilities are not foreseen or calculated for the future either. However this is necessary for determining what kind of energy demand the country has today and will have in the future.
4. **Coal:** Exploitation of economically profitable coal beds and production of electricity with new technologies using coal can be acceptable only if it takes place in accordance with internationally recognized environmental standards. Observance of these standards should be guaranteed by law. Today there is no legislative base for such guarantees.
5. **Energy Efficiency:** The government has a general vision on the necessity of energy efficiency, but this direction is not declared to be a priority of the energy policy, neither is there a necessary legislative framework. But it is impossible to calculate the country's consumption dynamics without calculating energy saving from the efficient usage of energy.
6. **Expansion of Transit Function of Georgia:** Together with Azerbaijan, Turkey, and/or Ukraine, Georgia is one of the circles in the wide transit chain. It can become a transit channel for additional resources if it becomes possible to transport these resources from Central Asia to the Caucasus, e.g. gas (with exclusive pipeline) through the Trans Caspian Pipeline and oil through the oil pipeline or via technologically innovative high capacity tankers (with flat bottoms). The political stability of Georgia as a transit country is of paramount importance for fulfilling this. Further expansion of the transit function also depends on how much the government of the transit country will respect already signed international agreements and whether it is able to earn a trustworthy reputation from the governments of both resource producing and consuming countries (no matter how different and difficult geopolitical context of these countries).

The directions of Georgia's energy policy as declared in the June 8, 2006 Resolution of the Parliament of Georgia and in the 1997 Law on Electricity and Gas reflect the existing situation and short-term development perspectives of the energy sector. Long-term perspective of energy sector development should be developed with consideration of the energy efficiency policy and the potential of traditional (wood) and non-traditional (solar, wind, geothermal, and biogas) energy sources.

