Preconditions for Development of Sustainable Energy in Georgia

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1. Introduction

An analysis of the Georgian energy sector's potential shows that the country possesses large resources to establish a sustainable energy system. Georgia is rich with renewable resources, specifically small hydro, wind, geothermal energy sources and solar power. Despite the some progress achieved during the recent years the state of the energy sector still remains unsustainable. This is caused by an imperfect legislative basis and an energy policy that in the long run does not aim at setting up a sustainable energy system.

Following the break up of the Soviet Union, Georgia's energy sector was almost destroyed. This contributed heavily to the breakdown of the state's economy and to the increase of poverty among the population. This also had a disastrous impact both on the environment (degradation of forests, erosion, etc) and the health of the population (usage of low quality oil products).

In order to rectify the situation structural reforms have been conducted since 1994 which through liberalization, privatization and depoliticization of the energy sector aimed at attracting private investments, creating a competitive milieu, and increasing access to energy. Roughly 700 million USD has been allocated for implementation of the reforms and for rehabilitation of the destroyed or out-of-service energy-generating facilities. In 1994-2002 the funds were allocated by various international financial institutions (the World Bank, the European Bank for Reconstruction and Development) and bilateral agencies, but the corruption and lack of transparency persistent in the sector plus "ready-made receipts" by the international organizations led to the futile spending of hundreds of millions of dollars, while the state remained in a deep energy crisis.

As a result, following the Rose Revolution the government's activities were mainly directed to quick eradication of the energy deficit, although the problems and tasks haunting the energy sector are by far more diverse and difficult. It is essential for sustainable development of the country that the energy sector becomes a viable, effective, and self-developing sector that guarantees the states' security and sustainable development for the decades to come, with minimum costs and maximum protection of the popular interests.

The EU-Georgia Action Plan within the framework of the European Neighborhood Policy openly requires "energy policy convergence towards EU energy policy objectives" through elaboration and implementation of "a coherent long-term energy policy converging gradually with the EU energy policy objectives including security of energy supply."

The main subject of research of this chapter is the power sector. We will attempt to analyze and assess the current and the expected changes in Georgia from the viewpoint of sustainable energy development.

2. Framework Documents Regulating Energy Sector

Long-term priorities of energy sector development are laid out in the document "Main Priorities of the State Policy in Georgia's Energy Sector", approved by the Georgian Parliament in 2006.

At present the main legislative act that regulates the energy sector in Georgia is the Georgian Law on Electric Energy and Natural Gas, which regulates "activities and relations of individual entrepreneurs, physical and legal entities in the spheres of management of electric energy system, wholesale trade in electric energy (power), electricity generation, transmission, dispatching, distribution, import, export and consumption, also in the spheres of supply, import, export, transportation, distribution and consumption of natural gas, and ensures the functioning and development of the electric energy and natural gas sectors of Georgia in accordance with the principles of market economy."

According to the legislation, Georgian Ministry of Energy represents the body that elaborated main directions of the state's policy and coordinates their implementation. The other main regulatory body is the Georgian National Energy Regulating Commission (GNERC). GNERC's function is to issue licenses and regulate tariffs in the Georgian electric energy and natural gas sector. At the same time the Commission is authorized to establish and approve the rules for technical and economic functioning of the system, including for terms license, and control their implementation.

In 2006-2007 significant changes were made to the Law on Electric Energy and Natural Gas in accordance with the Main Directions of the State Policy in the Georgian Energy Sector (hereafter Policy Document) approved in 2006. On the one hand, these changes like the Policy Document itself seem quite progressive, though there are certain problems and tendencies that should be discussed today to create foundation for the sustainable energy system.

3. Main Objectives of Georgia's Energy Policy

According to the Policy Document, the main long-term objective is to "fully meet the existent demand for electric energy in the country through own hydro-power resources", "gradually, first by supplanting import and then by supplanting thermal-power generation." Another, longer-term objective could be discerned here, namely: "From a state that imports energy resources Georgia should gradually become a state that possesses high technical-economic characteristics, stable, competitive [and] flexible, independent energy capabilities."

It should be noted that the progressive aims of the policy are understood in the Document as the existence of energy resources per se and development of Georgia's export potential. On the one hand this casts doubt on the chances of achieving said goal, and on the other hand this greatly increases the risks of negative impact on Georgia's environment and population.

Below is reviewed separate aspects of the Policy Document and related legislative, political and infrastructural initiatives.

3.1 Energy Security

The main priority and objective of the Policy Document is to ensure energy security, which should be based upon performing the following tasks:

- Complete re-equipment of the technologically obsolete and physically worn-out technical base should be carried out;
- New power stations and the infrastructure for transmission of electric energy and natural gas should be built;
- Diversification of the imported energy resources (natural gas, oil, electric energy) should be achieved;
- Commercially profitable economic model of the sector should be established.

As shown above, the problem of energy security still boils down to the security of supplies. Expansion of reservoirs that store energy resources, strengthening of relations between states, and diversity of suppliers represents a component of energy security. It should be taken into account that reduction of the demand for energy, reduction of energy dependency, and sustainability of the system is the very first and chief objective of energy security, because the most important goal of the energy security concept is to minimize those risks and impacts on the economy and society that will occur in case energy supplies are interrupted, and not the existence of energy resources per se.

According to the Policy Document, ensuring Georgia's energy security is expected largely at the expense of building new energy facilities. As stipulated in the document, the field of hydropower constitutes the main direction of the sector. The government has already started certain work in this regard. At present the planned works include construction of Namakhvani Cascade (installed capacity of 700 megawatts), Khudonhesi (Khudoni hydropower plant with installed capacity of 638 megawatts), approximately 32 small and medium-size hydropower plants (installed capacity of 511.7 megawatts). Preliminary works [that is] technical-economic research on the Namakhvani Cascade of hydropower plants[1] and Khudoni hydropower plant[2] are under way.

It is noteworthy that various types of decisions are taken in parallel to the above-mentioned, which completely transcend the Policy Document's priorities. For example, two gas turbines with the capacity of 110 megawatts each were added to the Georgian energy system in 2006. The Ministry of Energy itself was the initiator of this project implemented by a company Energy Invest. Together with the aforementioned hydropower projects two more new initiatives become known to the public in summer 2007. The ministry expressed an interest in building a coal power plant on the territory of the power units #6, #7, and # 8 of Gardabani and asked interested companies to present the terms, dates, presumable tariffs and technical-financial documentation of the construction works.

The other initiative which studies the feasibility of a nuclear power plant in Georgia is ever more interesting. A governmental commission has already been set up, which will study the rationality of building a nuclear power plant. Also, according to the disseminated information the government has already started negotiations with a French company "Areva" about building a nuclear power plant.

To some extent an impression is being made that the government's objective is to build as many energy facilities as possible and not ensuring real energy security. Implementation of such projects only for the sake of having certain energy-generating facilities is quite risky if we consider that there is no organizational or financial model of

[1] The state budget allocated 8.125 million GEL, according to the Government of Georgia's No. 176 decree of April 5, 2007
[2] Within the framework of the World Bank's pre-investment grant

building new facilities[3]. Nor has been conducted a Strategic Impact Assessment of Power Sector's Development on the Environment. This instrument should be employed to fully assess the existing potential in the country as well as environmental, social, and economical consequences of the planned activities, and to offer different scenarios for developing the sector necessary for creating a sustainable energy system[4].

A plan of the development of the Georgian electric energy sector at the lowest costs[5], elaborated with the assistance of USAID in 1998, aimed to help the government of Georgia to determine the scheme of capital investments in the electric energy sector till 2010. According to the plan, the first necessity was to restore large and medium-size hydropower plants of Georgia and to rehabilitate transmission lines. It should be noted that unfortunately almost nothing has been done in this regard prior to 2004. Even today, roughly 1,700 MW functions instead of the installed capacity of 2,700 MW, while the index of economic development is stably low.

3.2 Privatization and Economic Sustainability of the Energy Sector

One of the main directions of the Policy Document is gradual liberalization of the electric energy market, deregulation and introduction of a new model of market. Relevant legislative amendments were made into the Law on Electric Energy and Gas, and first steps were taken from the strictly regulated market to liberalization of the market via direct contracts, entry for third parties, deregulation of small hydropower plants, abolition of licenses for supplying natural gas, introduction of a graded tariff for the end consumer of low-voltage electricity, also introducing long-term tariffs for electricity sellers, etc.

The Policy Document stipulates that a tariff should protect consumers from monopoly prices, but neither the Policy nor the law contain any mechanisms that would prevent monopolies (state or private) from emerging on the market. In addition taking into account that anti-monopoly legislation is almost non-existent in Georgia, it will be really difficult in the electric energy and gas sector to facilitate competition, which constitutes one of the basic principles of market economy.

The Policy Document underscores the importance of transparency of privatization process in terms of attracting local and international investments and states that it is necessary "to carry out the process of privatization in electric energy and natural gas sectors in a transparent manner, so that sustainable supply of the end consumers of electricity and natural gas is guaranteed."

Unfortunately the privatization conducted in 2006-2007 is far from the aforementioned thesis presented in the Policy Document. For example, the overwhelming majority of hydropower plants were alienated in the recent years. In 2006 a privatization of six main hydropower plants (except Enguri hydropower plant) and three distributing companies was announced[6]. As a result of the privatization, the company Energy Pro turned out to own 62.5 percent of the Georgian energy market, although the process was absolutely not transparent. Both the selection of facilities and preparation of the privatization contracts and conditions were conducted without any involvement of the public (neither non-governmental organizations nor trade unions were involved).

Another example of non-transparent privatization is the cascade of Vartsikhe hydropower plants. It turned out that, for very nebulous reasons, the agreement between the Georgian Ministry of Economic Development and a company G.M. Georgian Manganese Holding Limited on purchase of the 100-percent-share owned by the state in Vartsikhe 2005 Ltd represents commercially confidential information.[7].

In this regard, the issue of privatization of so-called strategic facilities, for example, Enguri hydropower plant (whose output amount to 40 percent of the total energy generated in Georgia) and the Main Gas Pipeline, represents an even bigger problem. Majority of experts believe that the state should retain control on similar facilities, deriving from the concept of energy security, but the government periodically puts forward similar initiatives despite the already undertaken international commitments. At present the government of Georgia has

[3] Organizational and financial model of building new facilities, on whose basis major projects for the energy system development should be carried out: construction of Khudoni hydropower plant, a new transmission line with the capacity of 500 KW to Turkey, new hydropower plants, a new underground reservoir for gas, etc. Is the Ministry of Energy needed or not? Temur Mikiashvili, newspaper 24 Saati (*Hours*), 16.06.2006

[4] At present, within the framework of the World Bank's pre-investment grant which envisages preparatory works for the construction of Khudoni hydropower plant, a report is under preparation about Strategic Environmental Assessment (SEA) of the Georgian Electric Energy Sector. If we discuss in terms of technical assignment, one of the main objectives of the research is "to ascertain to what extent Khudoni power plant fits into the energy-generation scheme." The consultant company is just responsible to work out the energy consumption till 2010, prepare a plan of the lowest costs, and to calculate indirect costs of Khudoni. Also, it is not required to assess various alternatives (biomass, wind, geothermal, small-scale hydro, etc.) and to present a plan for developing the energy sector at the lowest costs.

[5] Burns & Roe Enterprises Inc.

[6] Two distributing companies (Georgian United Energy Distributing Company, and Adjara Energy Company) and six hydropower plants (Atshesi, Dzevrulhesi, Lajanurhesi, Rionhesi, Shaorhesi, Cascades of Gumathesi) were bought for 312.35 million USD by a Czech company Energo Pro, and Kakheti Distributing Company was bought by TBC Group.

[7] In this regard, the court trial initiated by Green Alternative is not complete yet, because the Court could not manage to involve company representatives as the third party in the case, for the latter have no legal address in Georgia.

undertaken a commitment not to alienate the Main Gas Pipeline before 2010, though at this stage it is hard to forecast subsequent processes.

Also, the existing tendency that alienation of energy facilities will lead to a quick and irreversible solution of the problems in the energy sector is quite dangerous. Moreover, according to disseminated information, there is an opinion in the government of Georgia that the state will not need the Ministry of Energy as an independent unit after all facilities of energy generation and distribution are privatized, and it will be united with the Ministry of Economy[8]. Experts negatively assess such steps and think that such an action will have a disastrous impact upon the Georgian energy sector.

3.3 Energy Efficiency and Facilitation of Renewable Energy Development

Nowadays, no strategic vision exists in Georgia regarding energy efficiency and renewable energy development, not to mention an absolute legislative vacuum in this regard. Here too, the Policy Document openly demonstrates that it does not aim to facilitate establishment of a sustainable energy system in Georgia in the long run. For example, the Policy Document acknowledges that "Georgia's natural conditions allow for significant development of alternative energy sources," but the same document also underscores that "use of traditional and alternative energy source should be placed in equal conditions," which in principle limits the opportunity for wide development of renewable energy and absolutely contradicts the EU's practice and principles of alternative energy development.

Box 1. Energy efficiency

Unfortunately, an assessment of the overall energy efficiency of the country has not been conducted in Georgia as of yet. After the breakup of the Soviet Union, the energy consumption in Georgia greatly decreased and today amounts to 0.8–1 tonne of oil equivalent (toe), which is 2-3 times less compared to the world average. It should also be noted here that the decrease occurred at the expense of the reduction of energy consumption, and not at the expense of energy efficiency, while the figures of energy intensity are quite high both in the industrial and in the domestic sector[9]. For example, the figure of energy intensity in the Georgian economy equals 0.7 KGNE/USD, which twice exceeds the world average (0.32 KGNE/USD).

All of this should not be surprising bearing in mind the fact that both the industrial and the domestic sectors mainly use the Soviet-era equipment. At the same time the energy consumed by the industrial sector accounts for just 14 percent of the total end consumption, while the domestic sector consumes roughly half of the total end consumption. Such practice also contradicts to the international practice, where the industrial infrastructure accounts for 70 percent of the total end consumption of the energy.

According to expert calculations, "the increase of energy efficiency on supply and consumption side by just 10 percent will lower the dependence of the country on imported energy resources by approximately 20 percent.[10]" It should also be borne in mind that in 2001-2005 the energy generation in Georgia increased by 3.8 percent, while the demand surged by 26 percent. Correspondingly, if the state wants the fulfillment of the Policy's main task – to reduced dependency on imported energy – then development of energy efficiency and renewable energy is necessary.

Also, among the priority directions of the Policy such a component of sustainable energy as energy efficiency is mentioned only at the level of declaratory statements, "formation of legislative and institutional frameworks for increasing energy efficiency in industrial and household sectors," in the direction of effective use of energy. This direction also states that it is necessary to "study and implement the measures necessary to use heating and co-generation systems, as well as to use renewable energy sources," but says nothing, for example, about energy saving, implementation of energy-efficiency measures or management of consumer demand.

In short, there is an impression that such important sub-fields of energy as heating and energy efficiency are not considered part of the energy sector in Georgia at all.

[8] Reorganization in the government: two ministries to be abolished?, M. Alkhazashvili, Tuesday, June 13, 2006, #108 (1128)
[9] In-depth review of Energy efficiency policies and programmes, Republic of Georgia, Energy Charter Secretariat, 2006
[10] Teimuraz Gochitashvili, Mindaugas Krakauskas. *Georgia in the context of EU energy policy*, Georgian Economic Trends, June 2006.

Box 2. Renewable Energy

Georgia has a quite large potential of renewable energy. First of all, this is related to a great capability for the development of micro hydropower. According to researches, development of micro hydropower is profitable in terms of environment protection too. Approximately 26,000 rivers are found in Georgia, the total length of which amounts to roughly 60,000 kilometers. According to researches conducted by USAID, UNDP, GEF and others, following an analysis of 300 rivers, it is possible to build roughly 1,200 derivation-type small hydropower plants, 700 of them in Western Georgia. The total installed capacity will be 3,000 MW, from which 2,000 MW falls on the Western Georgia. Annual output will be 16,000 Gigawatts/hour of energy, from which 11,000 GW/h falls on Western Georgia.

Development of windpower energy also has a large potential, with the technical potential of 4.5 TW/h. At present, the wind modes existing in Georgia have already been studied, appropriate zones have been singled out, and approximately 10 promising sites for windpower plants have been identified, with the total installed capacity of 1,450 MW and annual output of 4,160 GW/h.

It is noteworthy that the EU-Georgia Action Plan within the framework of the European Neighborhood Policy considers as a priority not only to adopt legislation on energy efficiency and renewable energy sources, but also to take steps for elaborating an action plan for their exploitation (including a financial plan) and to strengthen the institutions working on these issues[11].

According to the detailed action plan-matrix[12] for the years 2007-2010, elaborated under the guidance of the Office of the State Minister for European and Euro-Atlantic Integration, the Ministry of Energy plans to start elaborating "a working document in order to refine the extant legislative and regulatory base" and to prepare "relevant legislative initiatives." Neither the plan-matrix nor the 2007 strategy for implementing the European Neighborhood Policy say a word about working out an action plan on energy efficiency and renewable energy sources.

The aforementioned is not really surprising since the government thinks that practical measures, including implementation of pilot projects, are "matters of the market," and the market itself will regulate and develop energy efficiency and renewable energy. Taking into account the Policy Document's phrase that "use of traditional and alternative energy source should be placed in equal conditions" and that energy efficiency in fact is not considered a component of the energy sector, it is vague what incentive will remain for the private sector to develop these two directions.

It should be noted that in 2007, during ratification of the second loan agreement of Enguri hydropower plant rehabilitation, Parliament of Georgia took a commitment that by January 1, 2008 Georgia would have a complete legislative package on energy efficiency and renewable energy sources[13]. Despite of this, the large public knows nothing about the works undertaken in this regard.

Box 3. Heating

Centralized heating systems went out of service in Georgia at the beginning of energy crisis. Nowadays virtually nothing is implemented in this regard, except for a pilot project by the Global Environment Protection Fund which aims to supply certain districts of Tbilisi with geothermal waters and which is virtually stopped because of the lack of co-financing on the state's part. No statistics exist in the country about how much of the consumed primary energy is spent on heating and hot water supply. It is noteworthy, that according to international statistics in average 25-30 percent of the consumed primary energy is spent on the very heating.

The electric energy system partially undertook the function of heating, which brought about rather grave results for the system. Apart from this, the use of large amount of oil, gas, and firewood stoves in high-rise buildings caused concomitant environmental problems, pollution of the air in residence places, deterioration of health, etc.

[11] European Union – Georgia Action Plan within the framework of the European Neighbourhood Plan (Chapter 4., 4.6.2), November 2006

[12] The detailed action plan-matrix was prepared for the implementation of the European Neighborhood Policy by the Office of State Minister for European and Euro-Atlantic Integration in January 2007. The document was based upon the action plans received from every ministry. The government of Georgia has reviewed the document twice but afterwards refused to approve it. "The main remarks were that the plan was very detailed and the government of Georgia would not be able to implement it, while excessive regulations in the plan would hinder formation of a free market." (Georgia and the European Neighborhood Policy, perspectives and challenges, Policy Paper No. 8, OSGF, Tbilisi, 2007)

[13] Resolution of Georgian Parliament No. 4457 of March 15, 2007 on "Ratification of the Second Loan Agreement of the European Bank for Reconstruction and Development."

3.4 European Vector of Georgia's Energy Policy

As was already mentioned, The EU-Georgia Action Plan within the framework of the European Neighborhood Policy openly requires "energy policy convergence towards EU energy policy objectives" through elaboration and implementation of "a coherent long-term energy policy converging gradually with the EU energy policy objectives including security of energy supply."

It should be noted that the detailed plan-matrix[14] elaborated by the government of Georgia notes that the Document of Main Directions of the State Policy of the Georgian Energy Sector represents the very document that will approximate Georgia's energy policy with the EU's energy policy, and no other additional activities are planned in this regard.

Despite the certain positive changes which took place in the last two-three years in the Georgian legislation that regulates electric energy and gas there is still many problems when comparing the Georgian legislation with its European counterpart. According to experts, "the hierarchy of legislative and regulatory acts for the Georgian energy sector does not correspond to its European analogue. Legal powers are not equally distributed among political documents, laws, and legally binding regulations. One frequently finds declaratory statements, which are virtually impossible to implement for relevant institutions and mechanisms are absent. The energy legislation in force in Georgia does not create such a transparent system as the one offered by relevant European directives[15]." As an example, with the amendments made in 2007 the law already establishes the terms for receiving a license, which was a prerogative of GNERC before, and this should be considered as a step forward. The law, however, has not yet "established the rules for the entry of a generation facility into the market and for connection to a network, which are necessary for transparency and for avoiding discrimination. According to EU requirements, generation facilities are free from regulation and licensing and require authorization only when about to connect with a network, which facilitates creation of a secure and competitive market[16]." In Georgia license is issued for the following activities: electricity generation, dispatching, transmission, distribution, transportation of natural gas, and distribution of natural gas.

That the statement on Environmental Impact Assessment (EIA) is required for all activities could be considered as one of the positive sides of the process of licensing. But the law also notes that this statement "is obtained by the license issuer in accordance with the one window principle as determined by the Georgian Law on Licenses and Permits," that is through a simple administrative processing in 20 days. The purpose of this requirement, however, remains totally vague. One may wonder why it is required to have such a statement for execution of the aforementioned activities and how it should be used by GNERC when controlling adherence to the license conditions, since the opportunities of its subsequent use are not determined by law.

Usually in the EU member states, based on Environmental Impact Assessment of energy facilities the consent is granted before commencement of the construction of those facilities (construction of a new generation facility and transmission lines, installation of distributive infrastructure), while during the functioning of the facility an environmental management plan is prepared on the basis of the EIA report. The responsibility to implement this management plan is borne by the project sponsor, while the control is exercised by a relevant environmental body.

It is noteworthy that apart from legislative differences a difference between Georgia and the EU is more easily discernible on the policy level. For the EU the main priorities are harmonization of legislation, institutional compatibility and implementation of the energy security concept – in environmental, social, economic, and technical sustainability terms, while for the government of Georgia the foremost task is to rehabilitate energy-generating facilities and to build new facilities, with the aim of energy export.

According to experts, main directions of the government of Georgia do not conform to the requirements and goals of the EU's energy policy and do not correspond to the European strategy of sustainable, competitive and safe energy[17]. "The concluding part of the document laying out Georgia's energy policy presents the format of energy regulation and the principles of privatization, but says nothing about creation of a competitive milieu, which is a necessary precondition to solve the problems of energy efficiency and security. A part of the planned measures only describes the potential of various energy sources but does not ascertain the frameworks for their exploitation, and more importantly, does not determine their role in implementation of the goals of the energy policy[18]„

[14] The document was prepared by ministries for the implementation of the EU-Georgia Action Plan, under the guidance of the Office of State Minister for European and Euro-Atlantic Integration, at the end of 2006, but in the end was rejected by the government of Georgia for being a very detailed document.

[15] *Georgia in the Context of EU Energy Policy*. Teimuraz Gochitashvili, Mindaugas Krakauskas, Giorgi Abulashvuili. Georgian Economic Tendencies, June, 2006

[16] Legislative-Regulatory Basis in the Georgian Energy Sector and Its Conformity with the Analogue of European Union. G. Abulashvili, European Neighbourhood Policy and Georgia, Opinion of Independent Experts, Tbilisi, 2007

[17] Green Paper, A European Strategy for Sustainable. Competitive and Secure Energy, Commission of the European communities, Brussels 8.3.2006

[18] Georgia in the Context of EU Energy Policy. Teimuraz Gochitashvili, Mindaugas Krakauskas, Giorgi Abulashvuili. Georgian Economic Tendencies, June, 2006

Box 4. The EU's Energy Guidebook for Black Sea and Caspian Regions

On the basis of the Baku Initiative signed by the energy ministers of the European Union and the littoral States of the Black Sea, the Caspian Sea and their neighbors in 2004, the European Commission published so-called "energy guidebook" for this region. The document aims to a consistent convergence of the policy, legislation, and standards of the EU, South Caucasus and Central Asia states in the field of trade and transportation of energy supplies and related environmental issues. The cooperation should be carried out mainly in four directions:

1. Convergence of the energy markets of the parties based on the principles of the EU's internal energy market (among them non-discriminatory competition, strict environmental requirements, efficiency, reliability and safety including nuclear safety, integration of principles, further integration with the EU's internal market)
2. Strengthening energy security through the issues of import and export of energy resources, diversification of supply routes, transit and demand on energy supplies
3. Development of sustainable energy sector, which implies facilitating efficiency and utilization of renewable energy sources
4. Implementation of joint regional projects

An analysis of the guidebook shows that the Georgian energy policy has quite a long way ahead to converge towards the EU's energy policy objectives.

4. Conclusion

The EU legislation singles out three essential components for developing a sustainable energy sector: (1) Integration of environment protection, both during energy generation and energy consumption; (2) Security of supply; and (3) Development of competitive energy-systems – to ensure low costs for facilitating industrial competition with the aim of pursuing broad social-political goals.

While from above mentioned objectives only security of supply is a priority in Georgia, it should be noted that the steps taken for the security of supply do not conform to the EU's corresponding policy (energy efficiency, development of renewable energy, reduction of emission, etc.). If facilitation of competition is at least declared in the legislation, the integration of environmental issues does not seem to occupy the minds of the decision-makers within the sector. Therefore, the process of reformation of the Georgian energy sector is not directed to formation of a sustainable energy system that would become a heavy burden for the population and environment in the near future.

Deriving from the aforementioned it is necessary that an increase of energy consumption and a structuring of the energy balance in Georgia be planned on the basis of exploiting local, mainly renewable resources, which will draw on the principles of sustainable development.

EU-Georgian Action Plan within the framework of the European Neighborhood Policy includes elaboration of the Georgian energy policy and its compatibility with the EU's energy policy goals, and the gradual transition to the EU's domestic market principles of electric energy and gas. It is it necessary to elaborate documents of a sustainable energy policy of Georgia and a strategic action plan, taking into account the energy and sustainable development strategies of the EU and the requirements of relevant directives. These documents should be elaborated with participation of broad layers of society and should be obligatory to implement.

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