

PN-ACS-101

**ASSESSMENT OF NATIONAL ENERGY POLICIES
AND THE STATUS OF RESTRUCTURING IN THE
GEORGIA OIL AND GAS SECTOR**

**Georgia Oil and Gas Sector Reform
Contract No. LAG-I-00-98-00005-00
Task Order No. 5**

Final Report

Prepared for:

U.S. Agency for International Development
Bureau for Europe and the NIS
Office of Environment, Energy and Urban Development
Energy and Infrastructure Division

Prepared by:

Hagler Bailly
1530 Wilson Boulevard
Suite 400
Arlington, VA 22209-2406
(703) 351-0300

July 15, 1999

ASSESSMENT OF NATIONAL ENERGY POLICIES AND THE STATUS OF RESTRUCTURING IN THE GEORGIA OIL AND GAS SECTOR

This is the assessment of "national government energy policies and the status of restructuring in the oil & gas sector" called for by Subtask A, Task Order 5, of Contract No. LAG-I-00-98-00005-00, Georgia Oil and Gas Sector Reform.

Georgian Energy Policies

The year 1999 has seen substantial changes in the laws and policies governing the Georgia oil and gas sector, as Parliament has enacted significant items of legislation and has, as of mid-July, more legislation under active consideration.

The Georgian Law on Electricity and Natural Gas

One of the earliest and most significant achievements in the area of Georgian energy legislation was the Georgian Electricity Law of 1997. This Law created a scheme of regulation of the rates, terms and conditions of service for the generation, transmission, dispatch, and distribution of electricity and established order in the electric power sector based on an unbundled structure capable of operating under market conditions where feasible. The Law created a new agency, the Georgian National Electricity Regulatory Commission (GNERC), to oversee the sector by means of a system of licenses and tariffs. It enunciated certain regulatory and competitive principles, including a definition of the principal functions of the lead Ministry, the Ministry of Fuel and Energy. Among other things, the Law required that the Ministry to:

1. Limit its activities to the development of policies,
2. Relinquish ownership, regulatory and operational rights in the electricity sector,
3. Assume certain limited siting and licensing responsibilities.

The most far-reaching provision of the original Law on Electricity was the establishment, noted above, of GNERC as a permanent independent regulatory body. Establishing such a Commission that escapes direct central government controls represented a dramatic break with the past Soviet system, in which all economic activities were strictly and centrally controlled. Previously, all prices were set in ignorance of, and more often than not in conflict with, prevailing market forces. The allocation of resources, by being centrally directed, was largely

misdirected. However, the establishment of the Commission was also a break with immediate post-Soviet economic practices when market signals were no more heeded than they had been during the Soviet period.

In addition to creating the Commission, the Law on Electricity spelled out its principal responsibilities, including the regulation and granting of licenses, the establishment of tariffs, and the resolution of disputes arising in the electric industry. Moreover, the Law gave GNERC sweeping powers to develop and approve its own Charter and operational rules and regulations, subject to a legal framework that spelled out the terms and conditions for appointment of Commissioners, the duties of GNERC's Chairman, broad outlines for the conduct of official business, and budgetary and financial details.

The Georgian Law on Electricity has now been amended to include the natural gas sector and has been renamed the Georgian Law on Electricity and Natural Gas. The Law renames GNERC the Georgian National Energy Regulatory Commission. Rather than adding a separate section on natural gas, the amendments add terms like "natural gas" to "electricity" wherever appropriate. The amendments thereby extend the provisions that have functioned satisfactorily in the electric sector to the natural gas sector.

Development of a Natural Gas Tariff Methodology and Tariffs

With the Georgian Law on Electricity and Natural Gas now in force, a companion effort is underway to give GNERC the tools it needs to fulfill the natural gas tariff function envisioned under the new law. Starting in November of 1998, a two-member team under subcontract to Hagler Bailly went to work to develop a tariff methodology for natural gas pipelines and distribution companies in Georgia, and to establish reasonable cost-recovery tariffs. These consultants consulted and cooperated in depth with Georgian counterparts, including both the old and the new tariff regulators—that is, with officials of the Ministry of Economy and of the GNERC, the designated successor to the Ministry of Economy as gas tariff regulator. The consultants also consulted and cooperated with the natural gas industry's officials, notably representatives of Saktransgasmretsvi and the Georgian Gas International Corporation.

In spite of the usual difficulties associated with the introduction of new regulatory or legislative concepts in NIS countries, progress on the natural gas tariff front has been satisfactory. A first-round tariff proposal for pipelines has been completed and data collection begun in earnest for work on distribution tariffs. Of two specific barriers to designing a pipeline tariff, one has been overcome. The pipeline inventory has been fully and accurately accounted for and its valuation completed. The second barrier has to do with the resolution of the transit cost-recovery tariff (not to be confused with transit fees) for gas being shipped across Georgia into Armenia. Under a true cost-recovery regime, the end-users in Armenia will not be charged for operational and maintenance expenses associated with natural gas destined for consumption in Georgia. The

problem is that the extreme under-utilization of pipeline capacity and the small consumption volume in Georgia will give rise to a very high pipeline tariff within Georgia that may be found to be unacceptable. These models deal with average cost-recovery tariffs, Georgian cost-recovery tariffs and purely Armenian transit gas cost-recovery tariffs.

A partial Russian-language translation of present data forms used by the US Federal Energy Regulatory Commission has also been made. The forms will be used in Armenia but the choice of the Russian language was dictated on the very pragmatic grounds that they would also be usable in other NIS countries. The Chairman of the GNERC has shown great interest in this work and has indicated that he would want to use these forms in Georgia as well, perhaps with appropriate adjustments to reflect Georgian data peculiarities.

The analytical and modeling work has been complemented by discussions with Georgian tariff technicians and with high-ranking officials of jurisdictional government agencies and industry sub-sectors. These efforts have included face-to-face discussions with individual counterparts or groups of counterparts as well as a full-fledged two-day seminar. Progress has been satisfactory in preparing the natural gas community for the types and sizes of tariffs that will meet the cash flow requirements for adequate pipeline and distribution operations, while taking into account the concerns of a largely impoverished consumer population. Until now, the GNERC has been very supportive and has indicated that it intends to implement the proposed tariff methodology, if not the exact tariffs proposed.

Based in part on the foregoing technical assistance, GNERC has now released a draft tariff methodology to govern rate formation in the natural gas sector.¹ GNERC is also working on draft licenses, and terms and conditions of licensing, for natural gas supply, transportation, and distribution licensees. When finalized, these regulatory initiatives will establish the policy for natural gas regulation in coming years.

The Georgian Law on Oil and Gas

Even though Georgia currently produces virtually no oil or natural gas, there are several factors of interest to prospective oil and gas producers. Georgia presents a ready market for natural gas, with pipeline and distribution facilities in place. As a rule, the initial finding gas is a mixed blessing, since its delivery to markets generally requires the development of an expensive delivery system. At the volumes and pressures required for delivery of Georgia's gas needs, the system is nearly adequate. Rehabilitation expenditures, while necessary, will not be anywhere near as great as they would have to be for a full-fledged resumption of Georgia's pre-independence gas consumption and transit deliveries.

¹ See Hagler Bailly, "Final Report on Natural Gas Tariff Methodology," 14 July 1999.

If oil were found in modest quantities, Georgia would probably rehabilitate an existing refinery or put in place additional low-cost mini-refineries sized to handle product volumes needed for domestic consumption. If large commercial deposits are discovered on-shore, Georgia's generally flat terrain towards the Black Sea would make exports relatively inexpensive, and certainly competitive, with oil that reaches the Black Sea from Azerbaijan and central Asia. For offshore oil discoveries, deliveries would present no problem almost by definition.

These advantages have not escaped the international oil industry. As a result, some interest has been shown in securing exploration and production rights in Georgia. A major obstacle standing in the way of promoting exploration activities has been the lack of a legal basis assuring potential oil or gas investors that rights they have negotiated with the Government of Georgia's representatives will hold up in court. That obstacle has been eliminated with the passage of the Georgian Law on Oil and Gas.

Some of the more prominent features of the law are:

- 1) Where conflicts arise, the law takes priority over the old Soviet Law on the Subsoil that has many features that would be sure to scare off foreign investors.
- 2) Existing contracts are grandfathered as legal even if in conflict with the law.
- 3) The law provides for the creation of a State Agency that will be responsible for the regulation of all but trunk line transportation activities in the oil and gas sector. Responsibilities include, among others, the selection of exploration tracts, the development, tendering and awarding of tenders for such tracts, the negotiation and conclusion of petroleum agreements, the issuance of licenses, the monitoring of petroleum operations, and others.
- 4) Saknavtobi may conclude agreements with third parties or in its own right and carry out normal oil and gas operational functions.
- 5) The law spells out procedures that must be followed to secure petroleum exploration and production rights.
- 6) The law permits various types of petroleum agreements, including:
 - Production Sharing Agreements that provide for the recovery of costs from produced oil or gas. Instead of the usual cost-recovery set-asides, the production-sharing agreement has a royalty clause, not usually associated with such agreements.

- Concession Agreements, in which the State does not have a claim on a share of the produced oil and gas but covers its claims through taxes and royalties.
 - Risk Service Agreements in which the investor takes all exploratory risks, but where the State enters negotiations regarding its take after the discovery of commercial reserves.
 - Service Agreements where the service provider does not generally take a share of the produced oil or gas, but performs his service for cash. This type of agreement is typically used for service operations such as contract production operations, well work-overs and the like.
- 7) The law provides for maximum terms of 5 years for exploration licenses and 20 years maximum for production operations.
 - 8) A non-refundable "Participation Fee," designed to recover the issuing Agency's expenses in preparing the tender, is to be paid by all respondents to the tender offer, and a "Mineral Usage Fee" must be paid by the winning bidder.
 - 9) Various other provisions deal with such standard features as access to and use of land (if necessary by invoking eminent domain), transportation of produced oil or gas, and the transfer of investor's rights, joint field development.
 - 10) The law also contains a weak stabilization clause allowing the State to provide for compensating amendments to Agreements in those cases where subsequent acts or legislation have a negative impact on the profitability originally associated with the licensed petroleum operations.

The Law reflects certain defects and uncertainties, and others are sure to emerge as the law is administered, but enactment of the Law on Oil and Gas represents a major step forward in reform of the sector.

Other Legislative Developments

Hagler Bailly has prepared two other legislative documents that Parliament is considering, as of mid-July 1999: a Law on Eminent Domain and a law imposing strict liability for hazardous substances. The Eminent Domain Law is needed for at least two energy-related reasons. First, reference is made in the Law on Oil and Gas to the application of eminent domain to assure access and reasonable use of petroleum land if no equitable deal can be agreed to between the exploration/production company and the land owner. This requires the establishment of a legal basis for the use of eminent domain. Second, the Georgian International Oil Corporations has asked Hagler Bailly for assistance in the development of a Law on Eminent Domain because the

issue of access arises frequently in its dealings with entities proposing the construction and operation of oil or gas pipelines transiting Georgia.²

Parliament is considering the Law on Obligation to Compensate for Harm Caused by Hazardous Substances, which will establish important environmental policy for the oil and gas sector by making the owners and possessors of oil and oil products and natural gas strictly liable for harm caused by those materials.³

The Georgian Energy Policy Concept

The Law on Electricity and Natural Gas delegates regulatory authority to GNERC, but delegates to the Ministry of Fuel and Energy the task of developing national energy policies. The Ministry has been quiescent on that score until, in early July 1999, it released its draft "Georgian Energy Policy Concept," a policy paper. Hagler Bailly has just completed translating the paper, but has not yet had the opportunity to analyze the paper. We have attached a copy for USAID's information.

The Status of Restructuring

In August 1998, Hagler Bailly submitted a report, "Restructuring and Privatization Policy Guidelines: Planning for the Future of the Oil and Gas Sector of Georgia," prepared under Delivery Order 16. That report represents a comprehensive and recent evaluation of restructuring in the Georgia oil and gas sector. In this Assessment, we utilize relevant information from that report.

As detailed in the August 1998 Report, the oil and gas sector entities in Georgia have been unbundled into the functional elements of oil and gas exploration and production, natural gas transportation, natural gas distribution, product marketing, and international oil and gas transit. Currently, nearly all of the relevant entities remain under GoG ownership, either as joint stock companies in the case of Georgian International Oil Corporation and Georgian Gas International Corporation, or as departments of the Ministry of Fuel and Energy. The exceptions to this rule

² For a copy and discussion of the draft law, see Hagler Bailly, "Report on Eminent Domain Legislation for the Georgia Oil and Gas Sector," 12 July 1999.

³ For a copy and discussion of the draft law, see Hagler Bailly, "Report on the Draft Georgian Law on Obligation to Compensate for Harm Caused by Hazardous Substances," 12 July 1999.

are the natural gas distribution companies, the largest of which have been sold, or are in the process of being sold, to private investors.

Background

Hagler Bailly has prepared this report pursuant to the requirement of Contract No. LAG-I-00-98-00005-00, Task Order No. 5, Subtask A (1), that we "prepare a brief assessment of national government energy policies and the status of restructuring in the oil & gas sector." Much of the information required by Task Order 5, Subtask A (1) has been previously submitted by Hagler Bailly in the report entitled "Restructuring and Privatization Policy Guidelines: Planning for the Future of the Oil and Gas Sector of Georgia" prepared under Contact No. CCN-Q-00-93-00152-00, Delivery Order No. 16 (hereinafter referred to as the "August 1998 Report"). Accordingly, certain information contained in the August 1998 Report is reprinted herein. As detailed in the August 1998 Report, the oil and gas sector entities in Georgia have already been unbundled into the functional elements of oil and gas exploration and production, natural gas transportation, natural gas distribution, product marketing, and international oil and gas transit. Currently, nearly all of the entities remain under GoG ownership, either as joint stock companies in the case of Georgian International Oil Corporation and Georgian Gas International Corporation, or as departments of the Ministry of Fuel and Energy.

CURRENT STATUS OF OIL & GAS SECTOR ENTITIES

Georgian International Oil Corporation

Georgian International Oil Corporation (GIOC) was established as a joint stock company by Presidential Decrees Nos. 477 and No. 178, in November 1995 and February 1996, respectively, to participate in the transport of "early oil" from the Caspian Sea through the territory of Georgia. The Ministry of State Property Management (MSPM) holds GIOC's capital stock.

The primary asset of the company is a 30-year pipeline construction and operating agreement with the Azerbaijan International Operating Company (AIOC). GIOC and the AIOC affiliate, Georgia Petroleum Company (GPC), have recently completed new pipeline construction and refurbishment of existing facilities from the terminal of Sangachal on the Azerbaijan Caspian coast to the Georgian Black Sea port of Supsa. Initial tanker shipments of crude oil from Supsa began in mid-April 1999. It has been reported that AIOC intends to increase the pipeline's capacity from the initial 1.5 million tons per year up to 5 million tons per year in the near future.

There has been an ongoing dispute between GIOC and AIOC over both construction costs of the early oil pipeline and decommissioning obligations related to an unused portion of the old pipeline. The extent to which this disagreement may affect operation of the early oil pipeline is currently unknown.

Thus, and as detailed in the August 1998 Report, the principal function of GIOC relating to international oil transit has been unbundled from the remainder of the oil and gas sector.

Georgian Gas International Corporation

Georgian Gas International Corporation (GIC) was established by Presidential Decree No. 206 in April 1997 as a joint stock company for the purpose of managing Georgia's natural gas pipeline network, and to represent the Government in negotiations related to the importation and transit of natural gas.

The primary asset of GIC is the natural gas pipeline network. The pipeline network includes a 1,200 mm diameter main transport pipeline connecting Georgia to Russia, a 1,000 mm diameter line to Armenia and Azerbaijan, and a domestic network approximately 1,940 km in length. The capacity, operating pressures and segment specifications of the system are detailed in the August 1998 Report.

In early 1998, GIC assumed management of Saktransgazmretsvi, the State enterprise responsible for the transmission and wholesale distribution of natural gas. In May of 1998, the MSPM transferred management control of Saktransgazmretsvi to Intergas (now Sakgas). According to the MSPM, the transfer was for a five-year period and limited to management rights only. The transaction has resulted in court action between Saktransgazmretsvi and Sakgas over management control of Saktransgazmretsvi. In a related matter, GIC has alleged that Saktransgazmretsvi withheld certain assets from GIC, which are integral to operation of the natural gas pipeline.

The MSPM is currently attempting to resolve these issues. A tender commission is reviewing the agreement between the MSPM and Sakgas that transferred management control of Saktransgazmretsvi and the performance of Sakgas under the contract. According to the MSPM, once the report is finalized, a decision will be made on whether to continue the contract. The MSPM is also working to transfer all remaining assets related to the pipeline to GIC.

As in the case of GIOC, the separation of the gas transportation function from the remainder of the oil and gas sector appears to be complete.

Saknavtobi

Saknavtobi is the State entity responsible for the exploration and production of oil and natural gas. Prior to the establishment of GIOC, Saknavtobi also operated the Samgori-Batumi crude oil pipeline.

Divisions within the company include Oil and Gas Production, Exploration, Technology, Service, Construction, and a Bureau of Housing and Accommodation. Saknavtobi has a number

of subsidiaries reportedly engaged in petroleum related activities including science and research, geophysical activities, blow-out prevention and rescue, and field operations.

Several foreign oil companies are currently working in Georgia under Production Sharing Contracts with Saknavtobi. These companies include JKX, Ioris Valley, Ramco and Frontera Resources. ARCO has recently announced a decision to suspend negotiations related to acquiring rights to offshore acreage in the Black Sea.

Despite the efforts of these companies, the annual rate of domestic oil production continues to be well below levels of the early 1990s. According to figures obtained from the Ministry of Fuel and Energy, total 1998 production through November equaled 110,500 metric tons. Estimated production of 120,000 metric tons during 1998 reflects a 7.69% decline from 1997 levels.

The new Law on Oil and Gas promises to recast Saknavtobi's role in the upstream oil and gas sector, although the precise parameters of that role remain to be seen.

Saktransgazmretsvi

Saktransgazmretsvi is the State entity responsible for transport and sale of natural gas in Georgia. In its present form as a department of the Ministry of Fuel and Energy, Saktransgazmretsvi was established by Order No. 48 of the Minister in November of 1996, as successor to Sakgas and Saktransgaz. Reportedly, operational control of Saktransgazmretsvi is now held by the private entity Sakgas, the renamed Georgian subsidiary of Interpak, under a five-year management contract.

In 1996, responsibility for local distribution of natural gas was transferred to the municipal governments. After that transfer, Saktransgazmretsvi's main activities included the purchase, import, and transportation of natural gas in Georgia, the supply of natural gas to industrial and distribution customers, and the operation and maintenance of the natural gas pipeline network. Given the transfer of the gas distribution companies to the municipal authorities and the confusion as to the respective roles of Saktransgazmretsvi and GIC, the future role of Saktransgazmretsvi with respect to natural gas transportation is uncertain.

Municipal Gas Distribution Companies

Beginning in January 1998, the Government initiated the process of privatizing the larger municipal gas distribution companies in Georgia. During the year, Sakgas purchased the municipal gas distribution companies Kutaisgazi, Bolnisi, Rustav, Marneuli, Kaspi and Gori. In April of 1998, as a continuation of this program, the MSPM issued a public tender for the sale of 76% of Tbilisi, the City of Tbilisi's gas distribution company. Again, Sakgas was announced as the winner of this tender.

As a result of disagreements related to debt assumption, efforts to close that transaction were unsuccessful and Sakgas has withdrawn from the negotiation. MSPM is currently preparing, with technical assistance provided by Hagler Bailly, to make Tbiligazi the object of a new tender offer in the near future.

Saknavtobprodukti

Saknavtobprodukti is the State entity responsible for storage and marketing of petroleum products. Established by Presidential Decree in June 1995, the entity owns and operates product pipelines, and holds a controlling interest in 38 joint stock companies whose assets include oil depots and storage facilities. The entity controls the main petroleum product pipeline, which extends from Batumi to the interior of the country and which has been recently renovated by Chevron. Results of a 1998 tender to sell shares in 27 of the joint stock companies are unknown at this time.

Sakthevadgazi

Sakthevadgazi is the State entity engaged in storing, transporting and distributing liquid natural gas (LNG). Established in 1995, the entity operates nine LNG depots with a total capacity of approximately 12,500 metric tons. Primarily private firms now serve the retail market for bottled gas in the Tbilisi area.

Conclusion

Georgia has comprehensively addressed energy policy issues by enacting the Law on Oil and Gas and the Law on Electricity and Natural Gas. Attention will now turn, for both the Government of Georgia and donor agencies, including USAID, to implementing those laws. Restructuring of the oil and gas sector appears largely complete, with the appropriate attention now to be turned to privatization of State-owned enterprises in the sector.

Attachment

Georgia Ministry of Fuel and Energy, "Georgia Energy Policy Concept," Draft Paper, July 1999.

APPENDIX A

THE MINISTRY OF FUEL AND ENERGY OF GEORGIA

GEORGIAN ENERGY POLICY CONCEPT

Draft

THE MINISTRY OF FUEL AND ENERGY OF GEORGIA

GEORGIAN ENERGY POLICY CONCEPT

Tbilisi, 1999

STRATEGIC RESEARCH CENTRE

Preamble

During the current reform of the Georgian economic system, the Ministry of Fuel and Energy of Georgia has developed a concept of state policy for the formation and development of country's Energy Complex. The document provides the content of problems, solution directions and priorities, as well as the role of the government in the corresponding processes.

The present document has been developed by a working group including leading specialists of the Ministry of Finance, members of the Parliamentary Committee on Sectoral Economics, experienced energy specialists and scientists. The document includes results of research conducted by local specialists. The document considers Presidential Decrees concerning this sphere, other legal regulations, analytical studies done by experts of the World Bank, European Union and other international organizations.

The document is designed for discussion among energy sector professionals, politicians, scientists and the public. After the document is discussed in the Georgian Parliament and the President approves it, it will become the basis for a program for the formation and development of country's energy sector.

Table of Contents

1. INTRODUCTION	3
1.1 General Goals of the Georgian Energy Sector Reform	3
1.2 Transition Period	4
2 EXISTING STATUS OF GEORGIAN ENERGY SECTOR AND GENERAL PROBLEMS	5
3 GENERAL POLICY FOR DEVELOPMENT OF THE ENERGY SECTOR	7
3.1 Strategic Incentives for the Development of Georgia's Energy Sector	7
3.2 The Role of the Georgian Energy Sector	8
3.3 Requirement regarding the Energy System	8
3.4 Main Strategic Goals for Development of the Energy Sector	8
4 CERTAIN ASPECTS OF ENERGY MANAGEMENT POLICY	10
4.1 Economic Policy	10
4.2 Policy for Rationalization of Customers Sector	12
4.3 Regional (Internal and Foreign) Policy.....	13
4.4 Energy Corridor Formation Policy	14
4.5 Energy Security Policy	14
4.6 Scientific-Technological and Staff Policy.....	15
4.7 Public Relationship Policy.....	15
4.8 Environmental Protection Policy in the Energy Sector.....	16
5 MAIN PRIORITIES OF THE ENERGY POLICY.....	17
5.1 Main Priorities of Short-term and Middle-term Strategy of the Energy Policy	17
5.2 The Main Long-term Priorities of the Energy Policy	19
6 INSTITUTIONALIZATION OF THE MANAGEMENT SYSTEM	20
6.1 Principles of Management and Organization of Energy Complex.....	20

6.2	Role of the Government in the Management of the Energy Sector.....	21
6.1	Policy for the organization of Management System	22
7	LEGAL FRAMEWORK.....	23
8	NEAREST GOALS	25

Concept of the Energy Policy of Georgia

1. Introduction

Georgia is on the way to formation of a new social system. It is developing a new system of political and economic relations that shall provide a new environment for sovereign existence and consistent development of the country. In this process Georgia shall gain a new role in providing political stability and economic development in the region. This process shall set appropriate conditions for integration into the world's community of nations.

1.1 General Goals of the Georgian Energy Sector Reform

Currently, Georgia is undergoing structural reorganization of the entire economic system. In this process it is essential to create an effective environment for restructuring and development of the sector. The primary task of Georgia's energy sector is to create the basis for the stable functioning and development of the country's economy. At the same time in the environment of current global political and economic processes, Georgia has an opportunity to participate in the international and particularly regional distribution of labor due to the unique conditions, existing energy background and strategic political and economic circumstances in the region. The energy complex of Georgia is able to effectively participate in production, transportation and consumption of energy; participate in building conditions for economic integration and political stability in the region; play important role in production of export commodity; and become a powerful instrument for the development of the country.

In the process of reforming the Georgian social system, the principles of public administration have radically changed. In the new political and economic circumstances the management system of the energy sector proved to be inefficient.

Under the new circumstances, systematic restructuring of the entire energy system, establishment of new management capabilities, and the revision of energy policy of Georgia became essential.

In this situation the primary goal for the development of country becomes obvious: *under new circumstances create an effective energy sector that will provide social and economic conditions for the development of the country; particularly, create a governing system for the processes of formation and development of the sector.*

1.2 Transition Period

Georgia is in the process of reform. Current radical changes of the system are related to major social and political difficulties. At this stage government, like in every country in the transition period, is not able to ensure implementation of its political decisions. Economic activity is insubstantial. The role of the public in the process of reform is small.

The current process of reform is characterized by peculiarities of the problems. In particular, the following tasks are to be accomplished:

- The territorial integrity of Georgia must be reestablished and the Constitution must be enacted in full;
- A system for the territorial arrangement must be created and the structure and function of local governmental bodies must be determined;
- Develop new forms of public administration and determine the roles of governmental institutions; political and economic functions must be separated;
- Develop a socially oriented legal framework that will be consistent with a market type economy;
- Carry out privatization on a large scale and establish all forms and rights of ownership;
- The private sector must be strengthened, market relations and efficient financial markets must be established;
- Improved economic conditions must be established;
- The formation of international relations and regional communions must be completed;
- Georgia must be integrated into the world's economic system;

The Concept of Energy Policy is created based on these specific problems of the country's transition period.

2 Existing Status of Georgian Energy Sector and General Problems

Currently energy sector of Georgia operates in extremely difficult conditions. Structural reform and technical rehabilitation of the sector is under way. Work is carried out on legal framework. Conditions for wide scale privatization and attraction of investments are provided.

Energy Sector of Georgia with its current structural form has been developed during the soviet period. It reflects the soviet political direction of society's development that has very little to do with economic rationale. Such conditions encouraged inefficient consumption. As a result specific energy capacity per national product is 3-4 times more than similar indicator of the developed country.

Social and political cataclysms during the first years of independence of Georgia affected entire economy and particularly energy sphere. Considerable part of assets were destroyed and damaged (situation has even worsened due to the absence of maintenance and capital repairs); Administrative and labor discipline has dropped; quality of energy production has significantly worsened.

There is a dissimilar situation in the particular spheres of energy under circumstances of overall fall of production.

In the past decades usage of cheaper imported natural gas led to the reduction of coal production and destruction of coal mines. The market for the coal industry is destroyed, technical equipment is damaged, and programming for the development of the sphere is not achieved.

Oil production has significantly reduced; Natural gas production has stopped. Soviet policy of utilization of oil resources caused irrational utilization of discovered fields. exploration of new reserves was carried out with insufficient scale and low technical level. As a result country met the period of the crises with the exhausted oil fields and without reserves prepared for operations. Currently explorations were intensified as a result of attraction of foreign investments modern exploration technologies.

Great value to the country has system of natural gas mains and distribution network. Failure to operate in full-scale affects economy and ecology of the country. Delay in development of legal framework for privatization led to the inefficient privatization process. Infrastructure of transportation and distribution of oil products has to be improved. Batumi oil refinery is obsolete.

Despite economic crises energy system remains one of the largest operating industry. At the same time sector faces severe crises: connection with the neighboring energy systems is damaged, there are frequent accidents at generating stations, technical support and

operation regimes are destroyed, management of the energy system has considerably worsened. Nonpayment for the consumed electricity by residential customers made existing economic problems even more difficult. Termination of heat and gas supply caused increase of demand on electricity in the residential sector. Such increase in the environment of weak administration and overall technical difficulties resulted in severe problems. Operation of energy system at unacceptably low frequency resulted in irreversible damage.

Georgia has high voltage system with considerable transmission capacity. This system has an important export-import and transit potential. Distribution network is in much worse shape. Its current condition is unsatisfactory. There is a need of rehabilitation of existing lines, construction of new lines (especially to Turkey).

Efficiency of utilization of energy resources decreased. Electric energy is widely used for heating and other residential needs. There is a necessity to recover the heat supply system.

Existing situation in energy consumption sphere (energy efficiency problem) has not been subjected to the critical analyses. Attention is focused on problems of generation, and solutions to these problems are searched for aside from the problems of rationalization of existing consumption structure.

Energy sector administration problem needs perfection. The old organizational structure and stereotypes are still powerful. Strategy for development of energy sector of the country is still to be developed. This is the reason why emphasis is given to the goals of rehabilitation of generating units and not systematic fundamental problems. The role of the country's energy system in the regional system is not clearly defined.

There is a severe problem of collection of payments for consumed electricity from commercial and residential customers. Resources of foreign technical assistance are not effectively used. In the management system the process of separation of political and operational functions is not completed. Responsibility for existing situation in the energy sector is not distributed in the entire governmental system. Particularly, responsibility of local governments is not assessed politically. The execution mechanism of laws and governmental decisions is weak.

3 General Policy for Development of the Energy Sector

The concept of Georgian Energy Policy is elaborated according prospective of the Georgian Energy Sector for next twenty years. This concept considers Energy Sector as one of the main factors for Georgia's social and economic development. The main goal of the Energy Policy is to provide reliable, competitive and stable energy structure within the democratic and liberal economic environment.

3.1 Strategic Incentives for the Development of Georgia's Energy Sector

The analysis of prospective for development of the Georgia shows that the intensive growth of energy resources market is expected during the nearest ten years. The development of industry and standards of living will directly cause increase in energy consumption. This will result in interest of foreign investors to invest in Energy Sector of Georgia. In order to satisfy the demand of the region, the export and transit of electricity through the Georgian territory has a significant importance. Also rehabilitation of the Georgia's Generating Facilities (including old generating units of Gardabani Thermal Power Plant) may become attractive for the foreign investors.

Development of the energy resources (including natural gas) of the states located near the Caspian Sea is becoming very beneficial for the Georgia's economy. This gives Georgia an opportunity to conduct the transit of these resources through the territory of the country. It shall be noticed that there are no political obstacles on successful implementation of these projects. It is also important that transportation of natural gas through the pipelines has minimum environmental impact. This project has the similar significance for the country's economy as the well known "Big Oil" transit route.

Georgia has very favorable natural conditions for development of the peak and accumulative hydro capacities. Under these circumstances Georgia has a good prospective (Hydro Plants with reservoirs, high voltage transmission lines, etc.) to conduct export of expensive peak capacities.

To summarize the strategic conditions for development of the Georgia's energy sector are as follows:

- The existing energy capacities of the Country;
- Rich hydro resources;
- The volume and cheap price of the natural gas in the region;
- The increasing need of regional energy market;
- The possibility of development of the energy corridor in the region;
- Prospective of peak electricity export;

- The local coal resources (if rational technology is put in place);
- The rich resources of non-traditional energy resources;
- Prospective to increase energy efficiency.

3.2 The Role of the Georgian Energy Sector

Energy industry of Georgia creates conditions for functioning of country's economy. Energy industry of Georgia has a possibility to become a profitable sphere of country's economy. Georgian energy system has a potential to satisfy demand on basic energy resources of the country, serve as a regional corridor for energy resources, implement export of electricity. Furthermore, Georgia's energy system is capable to play an important role in the economic integration of the region. Thus energy sphere has an important role in the state policy, becomes an important political and economic resource of the country. Energy sector of Georgia shall create a background for the development of industry, shall become an important factor for the country's scientific and technological development.

3.3 Requirement regarding the Energy System

Considering political and economic conditions of the region and the state, the main requirements regarding the energy system of Georgia are as follows:

- provision of energy security of Georgia (development of energy production and rationally balanced and diversified export-import);
- increase of energy efficiency and rationalization of energy use;
- provision of continuous development of the energy sector;
- liberalization of the energy sector.

3.4 Main Strategic Goals for Development of the Energy Sector

Main strategic goals of the Energy Policy of the state, in accordance with the role of the energy sector, are as follows:

- rational rehabilitation and modernization of the energy sector;
- rational development of all fields of the energy sector;
- creation of legal, organizational and economic conditions of rational development of local energy resources;
- rational development of energy resources transit potential in the region – performance of functions of energy corridor;



- prioritize issues on development of hydro energy, first priority if given to improvement of export of energy during peak generation;
- changing of energy wasting infrastructure into economically effective and balanced consuming system;
- development of untraditional energy resources;
- introduction of rational methods for generation and utilization of thermal energy;
- introduction of environmental protection technologies in the energy generation-consuming system;
- completion of restructuring and privatization of energy sectors;
- provision of political conditions for operation of fair economic mechanism in the energy sector;
- organizational development and improvement of the state management system of the energy sector;
- creation of reserve capacities in the energy sector, for provision of reliability and stability of the system in case of autonomic functioning;
- implementation of policy on enhancement of economic conditions for provision of regional security system.



4 Certain Aspects of Energy Management Policy

Implementation of detailed state policy is required for realization of certain objectives of the State Energy Policy. The State Management System shall coordinate implementation of the Policy, generally the State Management System shall ensure:

- continuous development of the energy system by effective utilization of available economic potential (including import-export-transit of energy resources);
- continuous improvement of effective utilization of energy (energy efficiency);
- establishment of market system in the sector, creation of economic system of state regulation, and adjustment of interests of power producers and customers;
- review of public ideological, legal, organizational and economic terms and conditions for resolution of energy problems of the country;
- the process of continuous negotiations regarding energy problems with different political authorities;
- coordination of operation of political and executive bodies of the State Management in the sector.

4.1 Economic Policy

The most important issue of the state policy in energy sector is determination of terms and conditions of private property, free production and competition, also development of fair market system. It comprises exemption of the state management from production functions, which shall be ensured by means of implementation of the large-scale privatization process in the sector. At the same time the state management at certain extend is required due to specific nature of the energy sector, social importance of its products and great impact of the environment, also due to existence of natural monopolies.

Attraction of credits and financial assistance from international financial institutions and state-donors are required at the starting stage of rehabilitation of the sector, and implementation of large-scale investment programs is vital for its further development.

a. Economic Reforms

Economic basis for formation of a new energy system of the country is effective implementation of property divisions within the sector. The privatization process shall be carried out in the following manner: restructuring (change of organizational structure, including division of big organizations into smaller ones), commercialization (change of organizations into enterprises and promotion of their self-financing) privatization (full of partial privatization of enterprises by investors).

Currently, companies in the Energy Sector are under different stages of reforms. Presently, the oil product market is completely liberalized. Establishment of legal base for restructuring of natural gas economy and oil sector is almost finalized. Current reforms in the energy sector carried out in accordance with the Law "On Electricity". Privatization strategy of the sector envisages phased implementation of works, commencing with privatization of municipal energy companies.

In order to finalize reforms in the energy sector and get effective results from it, electricity market shall be established concurrently to privatization process, first priority is given to the wholesale electricity market and second priority is – the retail market.

Considering peculiarities of Georgian Energy Sector and its current conditions, the most important goal of formation of the wholesale electricity market is adjustment of accounting system and phased development of competition in power generation sector. Second goal may be creation of competition environment in power distribution sector.

b. Regulation of natural Monopoly

A part of energy sector, which performs network transmission and distribution services (electricity, natural gas industry) represents natural monopoly in economic system of the country, therefor introduction of accepted regulation systems is required.

The regulatory body for the electricity sector – Georgian National Electricity Regulatory Company - is set up. Rights and obligations of the company are determined under the Law "On Electricity", currently the issue regarding regulation of gas sector is being finalized. Provision of continuous and consequential development of the process is required.

c. Customs and Taxation Policy

Important trend of development of Georgian electricity sector is export, import and transit of energy resources. Creation of a special customs service is required for performance of functions for the transit corridor of energy resources in the region. It is also vital to draw up the energy sector (private and state companies') requirements regarding customs and taxation services and to establish an effective system considering the requirement (especially at the rehabilitation stage of the sector); international norms shall be taken into consideration in this regard. The State policy shall be elaborated to encourage development of the sector, which is very important for rehabilitation and rationalization of coal industry, as well as for increase of efficiency and effective use of untraditional sources.

d. Policy for Import-Export of Energy Resources

Aim of the policy for import-export of energy resources is to make energy resources cheaper, increase reliability of energy supply by means of diversification of sources of power supply.

The policy for import-export of energy resources is based on Georgian legislation and international obligations of Georgia (namely the Energy Treaty). Import of fuel and electricity is regulated by the state only in case of unfair competition, or if energy supply is mainly within power of a supplier or a region.

e. Investment-Credit Policy and Technical Modernization of the System

Risk of making investments in the sector is increased due to anticipated difficulties regarding energy system development. It is obligations of the state to reduce the risk and create favorable environment for attraction of investments and its most important factor is a stable process of economic reforms.

Attraction of investments for development of the whole energy system is more favorable than just for a power plant, therefor the investment-credit policy of the state shall be based on a clear and fair strategy for development of the energy sector.

In the transmission period the strategy shall be focused on rehabilitation and modernization of existing capacities. The state shall create favorable and fair environment for attraction of local and foreign investments, assist development of financial market and its infrastructure, insure security of attracted investments, and elaborate terms and conditions of free disposal of received income.

f. Price Formation Policy

The main trend of the price formation policy is liberalization of prices. At the same time, the state shall regulate prices in places of natural monopoly; but such regulation shall be minimal and only if interests of producer and customer can not be balanced by means of market system, or if inter-governmental tariff agreements are violated.

In the transmission period, prices of energy resources shall be brought in conformity with actual expenditures, together with de-monopolization and privatization of the sector. State regulation of natural monopolies and utilization of market system shall guide the process.

4.2 Policy for Rationalization of Customers Sector

Conditions of energy customers sectors are very important for efficiency of Georgian energy sector. The following factors influence conditions of the customers sector: physical and moral depreciation of customers sector, policy for distribution of energy resources, rules for energy use, introduction of equipment for energy saving, efficiency of economic mechanisms regulating energy use, participation of public in a program of economic use of energy resources.

Georgia shall be freed from traditional stereotypes regarding wasting of energy, this is the primary goal of the first stage.

Modernization of energy technologies (in production and utilization sectors) is a long process, which may take several tens of years, so the adjustment process of economic and energy infrastructures, in case of intensive efforts of the government, may last for 10-15 years.

In new social-economic conditions, structure of energy use will be significantly changed. New methods for energy use shall be introduced, and forms and mechanism of state regulation shall be established. The state strategy of industry development and programs for development of energy production shall be brought in conformity. Special attention shall be paid to perspectives of development of huge energy consuming enterprises, as well as to the issue regarding energy provision to the transport corridor of Eurasia, passing via Georgia. Assessment of energy conditions for stable functioning of the system and its infrastructures is required. Reconstruction of building and reduction of expenses for heating is needed, continuous increase of energy efficiency by means of introduction of updated energy saving facilities is required, also training programs of management shall be elaborated and implemented.

The main goals of the state policy for rationalization of energy utilization sector are given below:

- elaboration of the state program for increase of energy efficiency and creation of political, organizational and economic conditions for its implementation, considering issues regarding environmental protection;
- increase of energy efficiency and energy saving, both in industrial and residential sectors; including bringing the price formation mechanism in conformity with actual economic expenses, technical and structural improvement of power metering and the payment collecting system;
- performance of audit of power enterprises, and elaboration and implementation of programs for increase of energy efficiency of power enterprises;
- elaboration and implementation of programs for improvement of heating characteristics of buildings;
- elaboration and implementation of plans on substitution of certain part of building material industry with coal
- economic and organizational stimulation of programs on increase of energy efficiency in some enterprises.
- introduction of updated methods of energy management in residential sector.

4.3 Regional (Internal and Foreign) Policy

Rational energy integration in the region (foreign policy) is a strategic issue of energy sector development. Main purpose of the integration is fundamental enhancement of the energy sector. Fundamental enhancement (security, reliability, quality, etc.) shall be

encouraged by structural changes within the sector. Aim of the foreign regional policy is to receive the maximal return of the energy potential of Georgia within scopes of international economic integration and co-operation.

The internal regional policy envisages provision of active participation of local governmental bodies in elaboration of energy programs, which will assist in creation of favorable environment for optimal utilization of social, natural and ecological peculiarities of the region. Conditions for coordination of regional energy programs shall be worked out, and first priority shall be given to programs of national importance.

4.4 Energy Corridor Formation Policy

Performance of energy resources transit functions is vital for efficient utilization of geo-political potential of Georgia. Georgia can perform functions of transit corridor for electricity, oil and natural gas, provided that all issues regarding environmental protection are observed.

Performance of energy corridor functions will assist in integration of the country, both, in regional and global systems of economic relations. At the same time, the integration will enhance security in the region, create economic conditions for political stability.

In the process of formation of the energy corridor, special attention shall be paid to protection of the country from carrying out only energy transit functions. Energy resources passing on the territory of Georgia can assist in industrial development of the country, namely primary energy resources can be reproduced into electricity on spot; also chemical industry for reproduction of the resources shall be developed. The Georgian Government shall use efficiently the new possibilities connected with the energy corridor.

4.5 Energy Security Policy

The energy security policy of the country envisages restructuring, rehabilitation and modernization of the sector and phased increase of energy security level of the country. Transmission period envisages provision of minimal guarantees of energy security; provision of energy security of the country shall be completed later, on the stable economy development phase.

Challenges regarding development of energy sector of the country are as follows: foreign and foreign-economic relations of the country; internal political and social-economic conditions; commercial and technical conditions of the sector; structural changes in supply with, and production of energy resources; climate; natural calamity; and issues regarding environmental protection.

All activities connected with improvement and development of the energy sector, also assist enhancement of energy security.

Efficient development of local potential of energy resources is important for creation of reliable security system of the energy sector. Mainly it applies to hydro resources of the country. Rehabilitation program of installed capacities envisages their utilization at the starting phase. Efficient development of local coal reserves and analyses of their rational conservation potential is required; besides programs for exploration and utilization of local oil and natural gas reserves shall be elaborated. All above issues shall be viewed considering the energy security policy of the country.

4.6 Scientific-Technological and Staff Policy

The scientific-technological and staff policy is aimed at creation of favorable conditions for development of intellectual potential in the sector. The intellectual potential shall be used effectively for rehabilitation and further development of the sector.

Elaboration of programs for dealing with problems in the sector and creation of normative base shall be financed from revenues of the sector; the Ministry of Fuel and Energy shall carry out their selection and distribution.

While prioritizing exploration issues, preference is given to creation of ecologically friendly energy efficient technologies and their introduction. Special attention shall be paid to effective development of local energy resources and introduction of renewable and untraditional energy sources and updated energy saving technologies.

Aim of the staff policy is establishment of effective system for personnel training. Attraction of state and private financial means is required for realization of state programs. The staff policy shall become an integral part of the general policy for enhancement of the energy sector. Special attention shall be drawn to training of managers according to international standards, for provision of effective management process at the transmission period.

4.7 Public Relationship Policy

Public role in development of the energy sector of Georgia is vital, which shall be stimulated by the government. Responsibilities for current situation on the energy sector shall be divided between the government and the public. The government shall assist in: a) formation of a new public role according to new responsibilities imposed on the public; b) creation of organizational, informational and consulting environment for effective realization of public activities; c) establishment of relevant legal conditions.

The government shall: a) ensure provision of full information regarding the present situation of the energy sector to the public; b) clearly determine goals of the current state energy policy; c) explain and agree the goals with the public. Available plans and forms

of their implementation shall be agreed with the public too. The governments shall ensure transparency of the policy implementation process, also submission of full reports on performed works from all state officers responsible on conditions of the energy sector. Information on actual results and unperformed obligation shall be available to public.

Corruption is the most dangerous event in the process of restructuring of the public system, all political systems and public institutions, except administrative discipline methods and repression, shall participate in the anti-corruption policy.

4.8 Environmental Protection Policy in the Energy Sector

Issues regarding environmental protection are important for development of the energy sector. These issues are especially important for developing countries, because it is not always easy to settle politically the conflict between a short-term efficiency and long-term development requirements. Short-term efficiency may be very seductive for Georgia, due to vast economic importance of energy resources, which gives possibilities of budget income increase.

While considering ecological issues, principles of causing the minimal environmental impact shall be used. It means that uncompromising mottoes on maximal ecological protection can not be used, as they restrict implementation of any technical plan causing ecological impact. It should be taken into consideration, that the most dangerous thing causing environmental impact is decrease on the state economy. Rationally balanced environmental protection policy shall be utilized in the course of planning and construction of new energy enterprises.

The government shall assist all initiatives regarding increase of energy efficiency and a project of modernization of energy production, which are connected to significant reduction of environmental impact, and in this regard special attention shall be paid to the policy of technology modernization aimed at reduction of air pollution, that supports creation of favorable conditions for attraction of additional financial resources to the country and introduction of new technologies for the energy sector.

One of the main issues of the environmental protection policy is determination of compensation of harm caused to the environment, it means that compensation amount of any harm caused to the environment in the process of production, reproduction, transportation and utilization of energy resources shall be included in the final price of such resources.

5 Main Priorities of the Energy Policy

Rehabilitation, modernization and further development of the energy sector is a long-term process. In case of lack of energy resources, distribution of the resources are vital. All general issues for development of the energy sector are given below:

5.1 Main Priorities of Short-term and Middle-term Strategy of the Energy Policy

The short-term and middle-term strategy of the energy policy comprises 7-10 years. It envisages overcoming of results caused by crises and implementation of radical reforms in parallel. Generally the short-term and middle-term strategy envisages settling of all issues connected with the transmission period.

The general priority of the strategy is economic utilization of local energy resources and provision of primary stage of security of the energy sector.

Main issues connected to reforms of the energy sector are as follows:

- general technical rehabilitation, provision of ecological and technical security;
- finalize restructuring and implementation of optimal privatization process;
- foundation of bodies for implementation of the state energy policy and for regulation of natural monopolies;
- bring the price formation mechanism of energy resources in conformity with actual expenditures, by means of both, regulatory issues and market principles; and provision of complete transparency of economic relations;
- improve recording system of production and utilization of energy resources; and regulate payment of price for utilization of updated technical means;
- creation of a legal and normative base for the energy sector;
- improve investment environment and conditions for attraction of local and foreign investments;
- enhancement of the sectoral state management system

The main issues of the stage are prioritized according to sub-sectors:

Electricity Sector

- rehabilitation and modernization of the Hydro Plants, Gardabani and Rustavi TPPs and of other components of the Georgian electricity sector; increase of the annual production to 12-14 billion kWh, through the efficient management of the internal and external energy markets;
- increase of reliability and economic efficiency of the system, through the development of the internal transmission and distribution networks, strengthening of

the relations with the neighboring systems (particularly with Turkey), also through efficient management of import-export and Transit transactions;

- elaboration of the general plan for development of the Georgian electricity sector. Elaboration and implementation of the projects related to the export of peak energy.
- developments of the project on efficient operation of the thermal plants by using coal from Tkibuli mines and construction of the new units;
- development of the project on construction of the generators operating on the wind energy and construction of such facilities.

Natural gas Supply

- rehabilitation, modernization and expanding of the existing pipelines and the city networks; utilization of gas in public transport; increase of natural gas supply to the internal customers up to 4-5 billion c³.
- projection and construction of the facilities for reserving of the natural gas.

Coal Industry

- rehabilitation and modernization of Tkibuli coal mines and increase in production to the level of 0.8-1.0 million Tons. Maintaining of the State and foreign financial assistance in conservation and closing of the coal mines.
- elaboration and implementation of the program for modifying of the technologies for production, reprocessing and transportation of the coal.

Production of oil and natural gas, refining of oil and oil products and their transportation:

- development of oil and natural gas exploration, increasing oil production to the level of 0.7-1.0 million tons, and 0.5-0.6 billion c³ for natural gas.
- development of the oil and oil products' transportation facilities;
- modernization and expanding of production and on the basis of high quality Georgian oil production of expensive oil products;
- providing of the State reserves of oil and oil products;
- further development of the oil products' Markets, through utilization of the advanced and efficient technologies;
- development of the economic relations in the sphere of export and import of oil products

Heat Supply

- rehabilitation and development of economically efficient parts of centralized heating and hot water facilities; development of co-generation systems (mostly gas);
- popularization of the modern, efficient, economically reasonable and environmentally safe autonomous and individual heating systems;

- production of efficient and environmentally safe devices for heating and food preparation, using liquid gas, coal and wood;
- full and efficient utilization of the thermal water resources. Preparation of the plan and program for supply of heat to Tbilisi generated from thermal water resources. Reasonable utilization of solar energy.
- elaboration of the economically justified program for using the wood as the energy resource.

Rational Disposal of Energy Resources

- increase of energy efficiency in industry and among residential customers. Establishment of such pricing policy which would promote efficient consumption of electricity.
- conducting the energy auditing of the energy companies and elaboration and implementation of the energy efficiency policy.
- introduction of the new style management methods in energy consumption sphere.

5.2 The Main Long-term Priorities of the Energy Policy

The long-term strategy of the energy policy is the integral part of the country's State Policy. The main priorities of the state's energy policy are as follows:

In the sphere of economic and legislative development:

- the maximal development of the competition within the energy sector, establishment of the fuel and electricity markets; further development of the transit and export/import of energy resources through the liberal international trading mechanisms.
- development of the tax, pricing and regulatory mechanisms within the sector, in order to achieve strategic goals, like: constant increase of energy efficiency, development of the non-traditional energy resources and strengthening of the environmental protection.
- development of the legislative framework within the energy sector, according the international tendencies; transparency of the normative acts issued within the sector.
- providing with high level of energy forecast, energy planning and energy management; Using State program for achieving these goals.

In Development of the Energy Sector

- wide development of the hydro energy sub-sector, thought the attracting of the necessary investments;
- providing with State's energy security;

- construction of the economically efficient and environmentally safe thermal generating plants;
- providing with the economically efficient level of coal, oil and gas production.
- more efficient utilization of wind energy;
- development of the geothermal and solar energy generating technologies;
- determination of reasonability of introduction in Georgia of the modern energy technologies;
- popularization of the latest technologies of heating and air-conditioning systems.
- providing with the high level of training of the energy specialists.

In Consumption of Energy Resources

- instant increase of the energy saving level, through introducing of the latest and environmentally safe technologies;
- reduction of the energy usage for heating of the buildings, through introduction of the special isolation materials in construction.

6 Institutionalization of the Management System

6.1 Principles of Management and Organization of Energy Complex

The Effective functioning of Georgia's energy system will be possible only by organizing it in the way that will be adequate to the existing conditions of the sector's development. In particular, principles for the organization and management of the country's energy sector shall be as follows:

Systematic structure . Energy sector of the country shall represent the united production and consumption system, operating in harmonized and coordinated manner and consistent with the governmentally approved principles of organization and management. Coordinated functioning of the system shall be implemented through balancing production and consumption spheres in the conditions of their diversity. In the circumstances of diversity of power production such internal balance is reached in correspondence with the customer demand and through rational changes in power production sharing.

Regional Integration. Integration of the country's energy sector with the regional energy system means its inclusion in the complex with the specific function. Such integration shall be reflected in structural changes of the country's energy sector that are related to the efficient operation.

Separation of Political and Operational Functions of Management. Public administration institutions that develop and enact regulations shall not perform the operational functions.

Government Decentralization. Responsibility for making political decisions in the sector shall be shifted to the lower levels of government hierarchy that already have a competence for making decisions.

Distribution of Responsibilities Between Public and Private Sector. In the process of insuring the functioning of the energy sector government shall retain only those functions that will be inefficient to transfer to the public investor. System shall encourage inclusion of private interests and personal initiative in the sector's functioning.

Distribution of Responsibilities in the Entire Governmental System. Functioning of energy sector is determined by the activities of many different political entities (local governments, government executive authorities, political institutions, scientific and research institutions and public organizations). Therefore, in the given circumstances of the public system and government administration it is necessary to assign appropriate responsibilities, role and functions in the energy sector as well as to develop the mechanism for coordination of activities of different entities.

Separation of the Government's Social Obligations from the Sector's Economic Functions. Social policy of the government of Georgia that includes obligations of social security of the population shall include the provision of socially unprotected population with free or discounted power. It is essential to separate organizational implementation of these obligations from operational activities. This shall be implemented by shifting such responsibility from executive authorities, governing energy sphere to the governmental social security institutions.

Political collaboration. This includes readiness for the compromise during the dialogue between different governmental authorities, local governments, public, business groups, foreign governmental and business entities).

6. 2 Role of the Government in the Management of the Energy Sector

Role of the government in the management of the energy sector is determined by the strategic importance of the sector and its role in the country's economy. Government shall participate in the development of the direction in the energy sector that can not be implemented only based on mechanisms of market economy.

According to the present concept, government participation in the energy sector is as follows:

- Protection of state interests in the process of formation and development of the energy complex of the country;
- Development of strategy for the energy complex of the country. Development of accordant programs and their implementation;
- Compliance with the requirements of energy security and constant development of the entire complex;

- Provision of the political background for the functioning and the development of country's energy sector;
- Administrative bases for the implementation of the efficient power consumption policy;
- Institutional mechanisms for coordinated activities of governmental bodies (parliament, executive authorities of the economic sphere, ministries of social security sphere, local governments, government regulation institutions of privatized monopolies) and business effecting the operation of the energy complex;
- management of shares of the governmentally owned enterprises;
- Development and implementation of credit, investment, tax, tariff and export-import policy;
- Government regulation of natural monopolies in the energy sphere;
- Technical and scientific development of the sector and staffing with the professionals;
- Implementation of integration policy in the regional energy system;
- Political background for the formation of Georgian energy corridor;
- Regulation and protection of the Georgian power market;
- Rational restructuring and privatization of energy sector; Creating conditions for fair and effective distribution of property in the process of privatization;
- Development of legal framework for the functioning of energy sector;
- Special management regime for the transition period to insure the formation of new energy complex of the country.

6.1 Policy for the organization of Management System

Rational structure of the energy complex can not be formed by single political decision. Restructuring of social-political and economic system requires adaptive changes of this process.

Current reform of public administration is directed towards maximum decentralization of this system that implies political and economic independence of entities on the different levels of government hierarchy. At the same time it is important that formation of country's energy capacity and their operation is occurring in the conditions of shortage of all kind of resources. Rational and effective distribution of resources is related to the centralization of the management. Such controversy between actual conditions and political goals of the government can be overcome only through the flexible organizational environment. Accordingly, energy sector management system shall be restructured gradually by establishing such organizational forms that are consistent with the existing management culture, economic situation and level of the sector's development.

Privatization process of the energy sector creates problems to the management of the energy complex, for which the relevant political decision is already made by the government of Georgia. It shall be taken into account that energy sector has a strategic importance that creates requirements of its efficient management. For effective

privatization process in the sector it is important to continue the restructuring of energy spheres and distribution of ownership forms and management responsibilities of different enterprises.

Beyond this, the government of Georgia takes political obligations in the process of integration in the regional energy complex. Implementation of such liabilities requires relevant management environment. Accordingly, privatization of energy enterprises shall be conducted within the clearly defined strategy for the development of the energy sector of Georgia.

All institutions that participate in the development of the energy sector have authority and influence in the formation of energy policy of the country. Therefore participation of all appropriate parties in decision making process is essential. There is no doubt that Ministry of Fuel and Energy shall be responsible for organization of such processes.

For the purposes of managing the energy sector it is important that Ministry of Fuel and Energy implements constant monitoring of all spheres of energy and have all necessary resources for the analyses of the situation, as well as consistent organizational and political competence.

It is important to determine political tasks of the Ministry of Fuel and Energy, the executive functions required for their implementation and establishment of relevant organizational structure.

7 Legal Framework

Concept of energy policy of Georgia creates logical bases for the legal framework of the energy system of the country. Conditions determined under the legislation shall ensure viability of the present concept and create legal guarantees for its implementation.

Integration of Georgia's energy complex in the international regional system is the most important strategic goal of the country. Accordingly legal framework shall satisfy international norms existing in this sphere. It shall assist agreements between the states on import, export and transit of energy resources; establishment of simplified norms of customs procedures (bilateral and multilateral) and establishment of uniform foreign trade rules for all types of entities.

In the process of formation of the legal base, the current conditions of the country shall be taken into consideration. The present period is characterized by unclear political and economic conditions, as entities are reorganized constantly. In the process of institutional construction many social-political-economic systems are formed.

During formation of the legal base, process of restructuring in general political and all economic fields of the state management shall be compatible with each other. Institutional conditions shall be established for provision of the compatibility.

The following is required in this regard:

- improvement of normative base of the energy sector, considering international (namely European) unification trends;
- legislative acts and state resolutions shall become public for creation of favorable political conditions for international integration of Georgia economy.
- creation of favorable economic environment, for implementation of free entrepreneur activities, competition, long-term investments.

Currently relations in the energy sector are regulated by Georgian legislation, including the Law "on Monopolistic Activities and Competition", the Law "on Energy", the Law "on Electricity", the Law "on Oil and Gas", Decrees and Resolution of the President of Georgia, legislative acts passed by the Ministry of Fuel and Energy and other bodies. But improvement of the legal base is required due to restructuring.

Creation of a legal base is required, which will provide development of oil and gas resources and implementation of uniform state policy in the sector; and which will create favorable conditions for attraction of investments, ensure state supervision and control of all technological operations connected with oil and natural gas consumption, determine main principles of oil and gas exploration and production agreements made between the state and an investor.

Legislative principles and norms shall be determined for construction of trunk pipelines, in order to ensure efficient utilization of transit potential of Georgia, determine main trend of the state policy in the trunk pipeline sector, and enhance investment conditions.

Special attention shall be drawn to improvement of tariff system in the gas sector and determination of function of the regulatory body.

Enactment of certain legislative acts are necessary for the energy sector, which will support creation of the wholesale energy market, and complete the market structure foundation, assist market relations, besides, electricity will acquire the status of product, which will be protected legally and organizationally.

A legislative act shall be passed in Georgia (like in many other countries), which will regulate the state policy for improvement of efficient use of energy, besides institutional, economic and informative norms for realization of the policy. Legislative base of the energy sector shall envisage environmental protection, be means of balancing ecological and economic requirements of the public.

Legislative systems of other countries shall be taken into consideration while elaboration of the legal base.

8 Nearest Goals

In accordance with above issues the nearest goals of the energy sector are as follows:

- elaboration of a stable development strategy of the energy sector of Georgia and a program for its realization (including prioritizing types of energy carriers);
- enhancement of management system of the energy sector:
 1. institutionalization of formation and realization of the state energy policy;
 2. elaboration of programs for rational planning, realization, introduction of modern accounting systems, introduction of accepted standards of the energy sector and provision of organizational bases for their implementation;
 3. expansion and institutionalization of state regulation of natural monopolies
 4. enhancement of accounting system on production and consumption of energy resources and collection of energy payments from consumers;
 5. creation of a new organizational structure of the Ministry of Fuel and Energy
 6. elaboration of training programs for the Ministry employees and implementation of these programs.
- elaboration of programs for restructuring and privatization of certain fields of the energy sector;
- work out programs for creation of favorable political and economic conditions for attraction of local and foreign investments in the energy sector (including drawing up of a program for effective development of the energy sector of Georgia, working out of investment documentation and presentation of such documentation at the international market);
- elaboration of programs for rehabilitation of energy production, according to development strategy of the sector and implementation of these programs
- elaboration of a training program for the energy sector employees and managers and implementation of the program;
- elaboration of a program for realization of the regional integration policy and implementation of the program;
- provision of favorable conditions for the energy sector functioning; elaboration of a program for establishment of strategy for co-operation with public institutions and local governmental bodies and implementation of the program;
- elaboration of a program for reduction of negative impact on environment by generation and consumption of energy resources and implementation of the program;
- elaboration of programs for stimulation of effective use of renewable and secondary energy resources and implementation of the programs;
- creation of an energy information system, compatible with systems of other EU countries;
- creation of a normative base relevant for new conditions of the energy sector.