SECURITY OF SUPPLY STATEMENT OF THE REPUBLIC OF ALBANIA

PREPARED BY THE MINISTRY OF THE ECONOMY, TRADE AND ENERGY

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Table of Contents

1. Electricity ......................................................... 3
   1.1. Key Market Participants and their Responsibilities ................. 3
   1.2. Regulatory Framework for Electricity Production, Transmission and Distribution Investments ......................................................... 4
   1.3. Public Service Obligations ........................................ 4
   1.4. Production Capacities ........................................... 5
       1.4.1. Existing Power Plants .................................. 6
       1.4.2. Operational Security .................................. 7
       1.4.3. Construction of New Production Capacities .................. 7
       1.4.4. Incentives for New Production Capacities (renewable energy sources) ................................................................. 8
       1.4.5. Energy Balancing Market ................................... 9
   1.5. Transmission Network Capacities .................................. 9
       1.5.1. Current Status of Albania Interconnected Network ........ 11
       1.5.2. Electricity Network Planning and Development ................ 12
       1.5.3. Transmission Network Access and Control ................... 14
   1.6. Electricity Generation, Import, Supply and Peak Load .............. 14
   1.7. Electricity Supply .................................................. 16

2. Natural Gas ......................................................... 17
   2.1. Legal and Institutional Framework .................................. 17
   2.2. Public Service Obligation ........................................ 19
   2.3. Gas Supply .......................................................... 19
   2.4. Potential Gas Networks Projects ..................................... 19

3. Conclusions .......................................................... 22
1. ELECTRICITY

In this chapter the key electricity market participants and their responsibilities relating to security of supply are analyzed first, and then followed by the presentation of the regulatory framework for electricity production, transmission and distribution investments. Public Service Obligation is treated with special attention. This is then followed by description of existing and planned production capacities, incentives for new production capacities construction, existing and planned electricity network capacities, with particular reflection on the cross-border transmission capacities and transmission network access and management. Finally there is a presentation of achievements and planned projects, to satisfy electricity demand needs in the Albanian power system.

1.1. KEY MARKET PARTICIPANTS AND THEIR RESPONSIBILITIES

Based on the energy sector laws that relate to the electricity the Ministry responsible for energy sector (actually Ministry of Economy, Trade and Energy, hereinafter Ministry) among others conducts power sector policies and administrative supervision over the implementation of the relevant legislation and regulation; issues approval for the construction of new production capacities; makes recommendation concerning tariffs; issues opinions on documents relating electricity and carry out expert tasks in the power sector.

The Albanian Energy Regulatory Authority (ERE, hereinafter Regulator), is an independent, public entity that establishes and conducts the regulatory duties of energy activities in keeping with the Law on Power Sector. The Regulator was first established in 1995 by the Law nr. 7962 date 13.07.1995 “On energy” and the Law nr. 7970 date 20.07.1995 “On the regulation of the electricity sector”.

According to the Power Sector Law, the Albanian Energy Market Operator (TSO) is responsible for organization of the electricity market in accordance with the Market Model approved by the Government and the Electricity Market Rules approved by the Regulator.

According to the Power Sector Law (Article 41) and Transmission Grid Code (Chapters 2, 3 and 4), the Transmission System Operator is, among others, responsible for the development and expansion of the transmission system and for managing any transit of electricity between foreign systems, using Albanian electricity network. The Transmission System Operator shall provide for integrated management and reliable operation of the transmission system; maintenance of the transmission system sites and facilities in accordance with the technical and operation safety requirements; transmission system development in accordance with the long-term forecasts and electric power sector development plans; maintenance and development of the transmission auxiliary items.
The Transmission System Operator performs also the electricity market operator functions according to other by-legal acts in the power sector.

1.2. REGULATORY FRAMEWORK FOR ELECTRICITY PRODUCTION, TRANSMISSION AND DISTRIBUTION INVESTMENTS


According to the Power Sector Law (Article 48), within the month of January of each year, the Regulator shall establish and publish the level of annual consumption as well as other requirements when a customer may get the status of eligible customer. The Regulator based on this has approved a specific regulation for the criteria of issuing and withdrawing the status of qualified customer, Official Gazette 152/2006.

Upon receiving the eligibility status, the eligible customer has the right to sign electricity supply contracts with any local or foreign qualified supplier, licensed by the Regulator. The contract shall be in conformity with electricity market rules approved by the Regulator.

1.3. PUBLIC SERVICE OBLIGATIONS

The activities of electricity generation, electricity transmission, electricity distribution, and supply of electricity to tariff (captive) customers, organization of the electricity market and operation of electricity system shall be carried out as public services.

In imposing and enforcing licensees’ public service obligations, the Regulator may consider obligations in relation to:

a. security of supply;

b. regularity, quality and price of supplies,
c. use of indigenous energy sources;
d. efficient utilization of fuels and energy;
e. environmental protection; and  
f. protection of the citizens’ health, life and property.

No licensee shall have a public service obligation to provide electric service in an area in which it is not providing service on the effective date of Power Sector Law number 9072 date 22.05.2003, except as may be required by regulations adopted by the Regulator that provide for a fair allocation of the additional costs of providing such service between those customers seeking such service and existing customers of the licensee.

The costs incurred by any licensee under public service obligations shall be recognised as justified pursuant to Articles 27 and 28 of the Power Sector Law number 9072 date 22.05.2003.

1.4. PRODUCTION CAPACITIES

In the Albanian power system the electricity is more than 98% generated by hydro power plants. The most important is the Drin River Cascade with three hydro power plants, which produce over 88% of total electricity generation. The other cascades generate the other 10%.

There is only one thermal power plant (TPP Fier) in the Albanian power system. This TPP is constructed with old technology and low efficiency. The three 25 MW units generate small active power and are mostly used as a compensator for reactive power. Since April 2007 TPP Fier is out of operation.

Figure 1. Generation in GWh during years 1990 – 2006
Figure 2. Generation in % during years 1990 – 2006

1.4.1. Existing Power Plants

Installed generation capacity in the Albanian power system is 1,619 MW; the available one being around 1,460 MW. Its composition is shown in Table 1.

Table 1. List of available power plants

<table>
<thead>
<tr>
<th>Drin River Cascade (1350 MW)</th>
<th>Type of power plant (HPP)</th>
<th>Fuel</th>
<th>Capacity (MW)</th>
<th>Year of Commissioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fierza</td>
<td></td>
<td>-</td>
<td>4 x 125 MW</td>
<td>1978</td>
</tr>
<tr>
<td>Komani</td>
<td></td>
<td>-</td>
<td>4 x 150 MW</td>
<td>1985</td>
</tr>
<tr>
<td>Vau Deja</td>
<td></td>
<td>-</td>
<td>5 x 50 MW</td>
<td>1971</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mat River Cascade (49 MW)</th>
<th>Type of power plant (HPP)</th>
<th>Fuel</th>
<th>Capacity (MW)</th>
<th>Year of Commissioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ulez</td>
<td></td>
<td>-</td>
<td>4 x 6.25 MW</td>
<td>1957</td>
</tr>
<tr>
<td>Shkopet</td>
<td></td>
<td>-</td>
<td>2 x 12 MW</td>
<td>1963</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bistrica River Cascade (27.5 MW)</th>
<th>Type of power plant (HPP)</th>
<th>Fuel</th>
<th>Capacity (MW)</th>
<th>Year of Commissioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bistrica 1</td>
<td></td>
<td>-</td>
<td>3 x 7.5 MW</td>
<td>1966</td>
</tr>
<tr>
<td>Bistrica 2</td>
<td></td>
<td>-</td>
<td>1 x 5 MW</td>
<td>1967</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other HPP's (19.5 MW)</th>
<th>Type of power plant (HPP)</th>
<th>Fuel</th>
<th>Capacity (MW)</th>
<th>Year of Commissioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selita</td>
<td></td>
<td>-</td>
<td>5 MW</td>
<td>1951</td>
</tr>
<tr>
<td>Bogova</td>
<td></td>
<td>-</td>
<td>2.5 MW</td>
<td>1975</td>
</tr>
<tr>
<td>Gjanci</td>
<td></td>
<td>-</td>
<td>3 MW</td>
<td>1980</td>
</tr>
<tr>
<td>Smokthina</td>
<td></td>
<td>-</td>
<td>9 MW</td>
<td>1970</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thermal Power Plant Fieri (159 MW)</th>
<th>Type of power plant (Thermal)</th>
<th>Fuel</th>
<th>Capacity (MW)</th>
<th>Year of Commissioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1 - 2</td>
<td></td>
<td>Oil/natural gas</td>
<td>2 x 12 MW</td>
<td>1969 (not available)</td>
</tr>
<tr>
<td>Unit 3 - 5</td>
<td></td>
<td>-</td>
<td>3 x 25 MW</td>
<td>1969 (not available)</td>
</tr>
<tr>
<td>Unit 6</td>
<td></td>
<td>-</td>
<td>1 x 60 MW</td>
<td>1980 (not available)</td>
</tr>
</tbody>
</table>
The average age of hydro power plants in Albania is over 35 years. The last one that was built is HPP Komani in 1985.

### 1.4.2. Operational Security

More than 95% of installed generation capacity is in hydro power plants, and the most important is the Drin River Cascade, which produced over 88% of total electricity generation. During drought periods the production of electricity is decreased and the import of electricity is needed to cover the load. Because of the growing electricity demand, lack of new generation investments in a period >20 years and constrains on the import capacity lines, the system can not cover the demand and to take the balance it is necessary to make load shedding.

**Figure 3. Trend of generation, supply and load shedding in GWh (1981 - 2006)**

![Graph showing trend of generation, supply and load shedding](image)

### 1.4.3. Construction of New Production Capacities

Based on the Power Sector Law Nr. 9072 date 22.05.2003 and the Law "On Concession" Nr. 9663, date 13.12.2006, the construction of new generating capacities is subject of concession from the Government of Albania and licensing issue from the Regulator.
During the period 2007 - 2011, the generation capacity is planned to increase from the actual value of 1,460 MW to 1930 MW. This plan includes construction of new and reconstruction of existing thermal capacities. Some of new hydro capacities are included also in this plan as good options for the generation expansion to long term prospect.

Important generation project is the construction of new combined cycle thermal power plant in Vlora, which is in process of starting the works. The reconstruction of existing TPP Fier is another important generation project, which is in the tendering process. The new HPPs are to come in the medium term: HPP Bushati (Drin River Cascade) and HPP Kalivac (Vjosa River Cascade). HPP Kalivaci is under implementation and HPP Bushati is in the starting process.

### Table 2. List of new power plants under construction

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Capacity (MW)</th>
<th>Fuel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vlora</td>
<td>CCGT</td>
<td>97</td>
<td>Gas oil</td>
</tr>
<tr>
<td>Fieri</td>
<td>TPP existing</td>
<td>Up to 200</td>
<td>Gas oil</td>
</tr>
<tr>
<td>Kalivaci</td>
<td>Hydro res.</td>
<td>90</td>
<td>Hydro</td>
</tr>
<tr>
<td>Bushati</td>
<td>Hydro res.</td>
<td>84</td>
<td>Hydro</td>
</tr>
</tbody>
</table>

As it is known by now, Albania has a very good potential and feasibility of hydro resources, mostly in the Drin, Vjosa and Devoll river cascades. It is aimed to integrate and maximally utilise the energy potential of the Vjosa Cascade (which can reach up to 495 MW) and the Devoll Cascade (up to 320 MW).

Moreover, there are a lot of small hydro potential capacities (up to 10 MW each) all over the country to be developed. Only for 2007 the Government of Albania has in program to give concessions to more than 10 sHPPs.

### 1.4.4. Incentives for New Production Capacities (renewable energy sources)

Incentives are granted with the objective of promoting the construction of new production capacities that use renewable energy sources (RES). The Law Nr. 8987, date 24.12.2002, on creating facilities for new power generation plants stipulates that the new power plants using RES shall be exempted from customs duties for all their equipment and machineries used for generation purpose.

Another incentive is a direct support for RES as to set a fix price of selling electricity, based on import price of previous year. This price has to be adjusted year by year with inflation index. The Regulator has to adopt a methodology for determination of the price of energy produced by these sources.

Based on Albanian legislation small hydro power plants are not obliged to pay water and land property fees. These producers have a priority access for their connection to the power network.
1.4.5. **Energy Balancing Market**

Energy balancing market in Albania is defined and led by the Transmission System Operator. Based on information and studies, the Transmission System Operator will prepare an annual balancing energy needs forecast and deliver such forecast to the Regulator and the market participants. The Albanian Power Corporation KESH will offer this balancing energy to the Transmission System Operator under an annual contract for the KESH offering balancing energy from existing hydro power units technically able to provide such services, at prices which do not exceed maximum regulated prices established by the Regulator for these services.

1.5. **Transmission Network Capacities**

The Transmission System Operator is the owner of all of the transmission assets in the Republic of Albania. The transmission system in Albania is composed of the 400, 220, 150 and 110 kV. The power system of Albania has 120.2 km of 400 kV lines, 1128 km of 220 kV lines, 34.4 km of 150 kV line and 1216.2 km of 110 kV lines. The main transmission network is composed of 220 kV and 400 kV lines. The 220 kV network is completely meshed and connects the main plants in the North of Albania with load centers in areas of Tirana, Elbasan and Fieri. The 110 kV network is used to supply the distribution system. Part of this network is meshed and other part is radial. The system is interconnected with neighboring systems through the lines shown in Table 3.

**Table 3: List of interconnection lines**

<table>
<thead>
<tr>
<th>No</th>
<th>Name of line</th>
<th>Type of line</th>
<th>Voltage Level (kV)</th>
<th>Length (km)</th>
<th>Conductor Cross-Section ACSR(mm)</th>
<th>Current (A) Carrying Cap.Temp. 20°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fierza - Prizreni (KO)</td>
<td>Single Circuit</td>
<td>220</td>
<td>26.3 (68.0)</td>
<td>400</td>
<td>854</td>
</tr>
<tr>
<td>2</td>
<td>Vau Deja - Podgorica (MN)</td>
<td>Single Circuit</td>
<td>220</td>
<td>44.7 (65.8)</td>
<td>360</td>
<td>730</td>
</tr>
<tr>
<td>3</td>
<td>Zemblak - Kardia (GR)</td>
<td>Single Circuit Bundle Conductor</td>
<td>400</td>
<td>19.7 (87.5)</td>
<td>2 x 500</td>
<td>2 x 974</td>
</tr>
<tr>
<td>4</td>
<td>Bistrica - Igumenice</td>
<td>Single Circuit</td>
<td>150</td>
<td>34.4 ( )</td>
<td>175</td>
<td>560</td>
</tr>
</tbody>
</table>
Figure 4. The development of transmission lines 1955 – 2010

Transformation Capacity in Albanian Power System

Albanian power system has 13 substations 400 kV, 220 kV and 150kV:

1. 220/110 kV substation Fierza HPP  2 x 30 MVA
2. 220 kV substation Komani HPP  ------------
3. 220/110 kV substation Vau Dejes HPP  1 x 120 MVA + 1 x 60 MVA
4. 220/110 kV substation Burreli  2 x 60 MVA
5. 220/110/35 kV substation Tirana 1  3 x 120 MVA
   220/20 kV  2 x 63 MVA
6. 220/110 kV substation Sharra  1 x 100 MVA
7. 220/110 kV substation Rrashbull  2 x 100 MVA
8. 220/110/35 kV substation Elbasan1  3 x 90 MVA
9. 400/220 kV substation Elbasan2  2 x 300 MVA
10. 400/110 kV substation Zemblak  1 x 150 MVA
11. 220/110/35 kV substation Fieri  3 x 120 MVA
12. 220/110/35 kV substation Babica  2 x 100 MVA
13. 110/150 kV substation Bistrica 1  1 x 40 MVA

The total installed capacity is:  
in 400 kV  750 MVA  
in 220 kV  1,976 MVA  
in 150 kV  40 MVA
The 220 kV and 400 kV are generally constructed with double bus-bars at 220 kV and 400 kV side. The 110 kV side in these substations is generally realized with single bus-bars.

**Figure 5. The development of transformation capacity 1975 – 2010**

![Graph showing the development of transformation capacity from 1975 to 2010.](image)

### 1.5.1. Current Status of Albania Interconnected Network

Albanian transmission system is interconnected with neighbouring systems through four interconnection lines: 1) Fierza – Prizreni (KO); 2) Vau Deja – Podgorica (MN); 3) Zemblak – Kardia (GR); 4) Bistrica – Igumenice (GR). In a balanced situation of the Albanian system there is a permanent loop flow of about 120 MW from Greece to Kosovo entering into the Albanian network (through 400 kV Kardja – Zemblak line). Thus, in case when Albanian power system imports around 200 MW and looses the Greek interconnection line 400 kV Kardja – Zemblak, the voltage profile in the Albanian network goes down from the North part to the South part. Therefore, there is no any 220 kV line overloaded (including the two interconnection lines), but the level of voltage in all of the South part of Albania is much lower then the UCTE requirements. There is no any risk for any voltage collapse. This case has no negative impact to the neighbouring transmission networks. The same situation may happen in case of lost 400 kV line Zemblak – Elbasan.

There are no problems in the main 220 kV network to operate according the (N-1) criterion. The 220 kV network which connects the main power plants in the North of Albania with the main load nodes in the centre of Albania is meshed and fulfils the (N-1) criterion without any problems. Anyhow, there is a big problem...
in the South of the Albanian network related to the 220 kV ring from Tirana and Elbasan to Fier. There is a loop in 220 kV network that connects 220 kV substations of Tirana, Elbasan, Fier, Rashbull and Tirana. In case of missing 220 kV line Tirana – Rashbull or Elbasan – Fier, the network can not fulfil the (N-1) requirement. In this case, there is the overloading of some lines and the level of voltage in the South of Albania is very low. This case could create big problems in the south and this zone can suffer from blackouts for this reason. To have a secure operation of this loop, some protections are foreseen which automatically shed load to maintain the network in normal operation. In order to fulfil the (N-1) criterion and to increase the reliability of the Albanian network, the construction of new power plants is foreseen in the South part (TPP Vlora, HPP Kalivaci, etc.), and in the meantime the reinforcement of the 220 kV network.

1.5.2. Electricity Network Planning and Development

Development plan of Albanian network includes new important projects; some of them will be important for Albania but also for the South East Europe region. The following projects are considered as medium term development ones which will be in operation by the end of 2009 or in early 2010:

**400 kV Interconnection Project.** 400 kV Line Tirana2 (AL) – Podgorica (MN) with length 154 km (125.5 km at Albanian side where 80 km will be double circuit and 28.5 km at Montenegrin side); 400/220/110 kV Tirana 2 Substation with 2x300 MVA 400/220 kV and 2x120 MVA 220/110 kV; 400 kV Line Tirana2 – Elbasan2 with length 48 km.

**Albanian National Dispatching Center.**

**Rehabilitation and Upgrade of the existing 220/110 kV Substations.** This project is aimed for replacement of the control-monitoring-protection systems and replacement of the primary equipment in 8 substations 220/110kV.

**The construction of three new 220/110 kV substations.** Shkodra area, Komani area and Lac area (North of Tirana), where the connection with existing 110 kV network is foreseen.

**The possibility for construction of the new 400 kV tie line with Kosovo.** Line Tirana2 – Kosovo B with length about 235 km (feasibility study finished).

**The possibility for construction of the new 400 kV tie line with FYR of Macedonia and DC Cable with Italy.** Feasibility study finished.

Having in mind the objectives which the Transmission System Operator has estimated before it is necessary to emphasise that the implementation schedule for all of the mentioned projects is currently in a delay; this being due to the fact of the funding problems as well as problems related to the community affected.
Table 4. Schedule for the implementation of the network development plan

<table>
<thead>
<tr>
<th>Items</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 400 kV line Elbasan - Podgorica including 400/220/110 kV Tirana 2 substation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. procurement process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. completion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B Vlora Power Plant CCGT 1x 90 MW</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. procurement process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. completion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C Upgrade of all 220/110 kV substations in Albanian Power system</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. procurement process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. completion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D New National Dispatch and Control center</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1. procurement process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. completion</td>
<td></td>
<td></td>
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</tbody>
</table>

Figure 6. Map of Albanian power system
1.5.3. **Transmission Network Access and Control**

The regulation of transmission network operation is defined by the Transmission System Code, which is approved by the Regulator based on Law No. 9072, date 22/05/2003 “On the Power Sector”.

The Transmission System Code regulates:

- Terms and respective documentation to apply for the right to connect to the transmission system;
- Minimal technical and functional specifications to provide access and connection to the transmission system of generation installations, distribution companies, eligible customers as well as interconnection with other networks;
- Deadline for the Transmission System Operator to reply to the applicant;
- Criteria applied by the Transmission System Operator for the management from the Dispatching Centre to the available generation installations and use of interconnections;
- Way, extension, terms and conditions under which the Transmission System Operator, when dispatching generation installations, gives priority to those using electricity renewable resources; and
- Any other necessary details to regulate the functioning of the transmission system.

1.6. **Electricity Generation, Import, Supply and Peak Load**

Electricity demand in Albania has been increased during last 12 years at an average rate of about 6%. The increase of demand is not associated with increase of generation capacities. During this period the peak load is increased as well. In last 22 years the peak occurs in winter season (December – January) during working days (Tuesday, Thursday) between 20:00 - 21:00.

The peak load in 2006 was 1317 MW at 20:00 on 28 January 2006.

Albania needs to import electricity to cover the load. The import of electricity is variable due to the composition of domestic production. Nearly 100% of installed generation capacity is in hydro power plants, and the most important is the Drin River Cascade, which produces over 88% of total electricity generation. During drought periods the production of electricity is decreased and it is necessary to import more electricity to cover the load. Constrains on the importing lines, oblige to make load shedding to take the balance in the system.
Figure 7. Consumption in GWh covered by production inside Albania and import during 1990-2006

![Bar chart showing consumption in GWh covered by production inside Albania and import during 1990-2006.](chart1.png)

Figure 8. Albania peak load in MW during 1981-2006

![Bar chart showing Albania peak load in MW during 1981-2006.](chart2.png)

Table 5. Electricity demand and peak load projections for 2007 - 2015

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity Demand (GWh)</td>
<td>6659</td>
<td>6855</td>
<td>7061</td>
<td>7343</td>
<td>7637</td>
<td>7943</td>
<td>8260</td>
<td>8590</td>
<td>8934</td>
</tr>
<tr>
<td>Peak Demand (MW)</td>
<td>1357</td>
<td>1397</td>
<td>1439</td>
<td>1484</td>
<td>1529</td>
<td>1591</td>
<td>1640</td>
<td>1691</td>
<td>1758</td>
</tr>
</tbody>
</table>
1.7. **Electricity Supply**

Based on the Albanian Law on Power Sector Nr.9072 date 22.05.2003, amended, the Regulation of the criteria for issuing and withdrawing the status of eligible Customer, and the Decision of the Regulatory Board Nr. 93 date 21.12.2006 (Official Gazette nr. 152/2006), eligible customers in Albania in 2007 are the customers with annual consumption over 10 GWh, and after 1 of July 2008 all customers will be eligible. Now in Albania there is only 1 eligible customer. All other customers are supplied by the Albanian Power Corporation KESH.
2. NATURAL GAS

Natural gas sector activities in Albania are very limited. Domestic gas fields which are under the administration of “Albpetrol” s.a. (state owned company), are depleted and annual gas production has been decreased from 1 bcm in 1982 to 0.01 bcm actually (Fig. 1). Gas which was used in the past mainly in industrial sector (not household sector) is currently used only for technological purposes in the oil production and refining (on site facilities) industry, while for space heating it is used mainly electricity and LPG.

**Figure 9. Gas production in Albania 1980-2005 (million cubic meters)**

Albania still remains not connected to the European gas network and no natural gas is imported in the country. Therefore, no gas market exists in Albania, at the moment.

2.1. **LEGAL AND INSTITUTIONAL FRAMEWORK**

The legal framework for the natural gas exploration and production activities, is based on the Law no. 7746, date 28.7.1993 “The petroleum law (Exploration and Production)”, in which the Policy of the Republic of Albania is presented on the exploration and production activities for oil and natural gas. Meanwhile, the fiscal system in the hydrocarbons sector is based on the Law No.7811, date
12.04.1994 “On approval of Decree no.782, date 22.2.1994 On the fiscal system in the hydrocarbons sector (Exploration - Production)”.

Regarding the existing legal framework for the transportation and trading of natural gas, it is based on the Law No. 8450, date 24.02.1999 “On refining, transportation and trading of oil, gas and their by-products”, changed. Referring to this law, the Albanian state defines the policy of the development of the activities in the refining field, transportation and that of marketing of oil and gas and their by-products. The state exercises its regulatory functions in conformity to the needs of the country, of national defence and public security respecting the principles of the market economy.

Based on this law (Article 11), “the construction of the oil and gas pipelines for the import, export and transport of crude oil and natural gas is made on the Decision of the Council of Ministers”.

Actually, the Government of Albania, through the Ministry of Economy, Trade and Energy is in the process of preparing the complete natural gas legislation, based on the requirements of the Treaty establishing the Energy Community, in particular the requirements of the Directive 2003/55/EC.

The Task Force is established by the Government of Albania to prepare national gas legal and technical framework, which would enable participation of Albania in the regional gas network, interconnection projects. It is in phase of finalizing the primary gas legislation and afterwards it will proceed with technical rules.

In this draft legislation, the Ministry responsible for the energy sector (Ministry of Economy, Trade and Energy), is the highest governmental institution, which prepares gas sector development policy and gas legal, institutional and technical framework. The Ministry supervises the implementation of the gas legislation and regulation in order to ensure gas market functioning as unified and integrated one. The Ministry makes recommendations concerning tariff policy and gas tariffs, issues opinions on different documents related to the gas market and conducts expert tasks in gas sector.

This draft legislation authorizes the Albanian Energy Regulatory Body, now Electricity Regulatory Entity (ERE, the Regulator) established in 2004, to prepare and approve the regulation in energy sector, both electricity and gas areas.

This draft legislation also opens another alternative, to have a separate Gas Regulatory Body.

According to this draft legislation a Transmission System Operator, will be responsible to organize transmission and balancing activities in the gas market, based on the approved regulations.

In this legislation gas sector activity comprises production, storage, transition, transmission, distribution, supply and trade of the natural gas.
2.2. PUBLIC SERVICE OBLIGATION

According to the draft gas law, the activities of transmission, distribution and supply of tariff customers with gas are considered to be public services. Despite that other activities of natural gas will be fully liberalized, the Government of Albania and the ERE can adopt measures regarding the public service obligation, but on the other hand those measures have to be well-defined, transparent and non-discriminatory and controllable.

2.3. GAS SUPPLY

As mentioned above, Albania actually does not have a gas market developed, therefore no supply activities are performed in the country. However, the provisions of the draft gas law authorize the ERE to adopt general conditions for the gas supply of customers, both tariff and eligible customers, should such a market be created and established in the near future.

2.4. POTENTIAL GAS NETWORKS PROJECTS

In parallel with the preparation of the legal, institutional and technical framework, Albania is working on the creation of the gas policy, establishment of regulatory framework and infrastructure planning. Based on the Law No. 8450, date 24.02.1999 “On refining, transportation and trading of oil, gas and their by-products”, changed, and on the Decision of the Council of Ministers, No 553, date 12.8 2004, “On the procedures and conditions for giving the concessionary licenses for construction and operation of the refineries, oil pipelines and gas pipelines”, during last years the Ministry of Economy, Trade and Energy has treated and evaluated several proposal for developing of natural gas infrastructure and its operation (Fig. 10).

**Figure 10. Options of the East-West (GR-AL-I) gas pipelines projects**
The most potential gas supply directions and relevant projects in Albania are:

- LNG terminals in the Adriatic coast, near the town of Fier; (Fig. 11).

**Figure 11. Proposal for a submarine gas pipeline project Albania-Italy**

- LNG integrated project (LNG re-gasification terminal together with a new TPP and connection gas and power lines to Southern Italy), sponsored by ASG Power S.A.
- LNG re-gasification terminal and undersea gas pipeline to Southern Italy, sponsored by Trans European Energy S.A.

- Trans Adriatic Pipeline integrated project (gas pipeline and LNG terminal) sponsored by EGL (Fig. 12), supplying Caspian and Russian gas in Albania and transiting to Italy, through Greek gas network;

**Figure 12. Trans Adriatic Pipeline proposal project**
- Ionian Adriatic Pipeline project, as part of the Balkan Ring linking Albania gas network with Montenegro, Bosnia Herzegovina and Croatia networks.
- “Prometheus Gas” S.A. gas pipeline project, for connection of Albania with natural gas network of Greece, and construction and operation of a new TPP in the Korça District, near the Albanian-Greece border.
3. CONCLUSIONS

This Security of Supply Statement presents Albania’s obligations based on the Energy Community Treaty, so its scope is limited to security of electricity and natural gas supply, mostly related to the period 2008-2011. This Statement consists of two chapters: 1) electricity and 2) natural gas.

In the first chapter the key electricity participants and their responsibilities are analyzed relating to the security of supply. This is followed by a presentation of the regulatory framework for electricity production, transmission and distribution investments. This is followed then by a description of existing and planned production capacities, existing and planned electricity network with particular reflection on the cross-border transmission capacities, and transmission network access and control. Finally there is a presentation of achievement and plan project to satisfy electricity demand in Albania.

In the second chapter, on natural gas, the existing situation in the natural gas sector in the country is presented first. This is followed then by the presentation of legal and institutional framework as well as public service obligations. Special attention is given to a presentation of potential gas network projects.

Finally, it can be concluded that the regulatory framework in Albania in the context of security of electricity supply is completed, but for natural gas it has to be completed within this year. The responsibilities of key players in the power sector are nominated, but for gas supply it remains to be done. Public Service Obligation relating to electricity supply is established, but for gas supply it has to be completed. Power system development plan is continuously under verification and upgrading, first of all having in focus necessity to balance hydro with thermal generation and monitoring proper use of hydro generation sources particularly recognizing importance of the Drin River Cascade. Albania power system is not well connected to the neighbouring systems while gas network is not developed. Taking into consideration unfavourable composition of power generation system (98% hydro basis) and insufficient interconnection capacities with neighbours as well as the lack of gas sources and gas network in the country, the energy sector (electricity and natural gas) is generally targeting a satisfactory level of security of supply.