



ZYRA E RREGULLATORIT PËR ENERGJI
ENERGY REGULATORY OFFICE
REGULATORNI URED ZA ENERGIJU

Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil)

July 2011



CONTENTS

EXECUTIVE SUMMARY	iii
1. DESCRIPTION OF THE ROLE OF REGULATORY OR OTHER AUTHORITIES	1
2. LEGAL BACKGROUND	3
3. SITUATION OF SUPPLY AND DEMAND BALANCE IN THE ELECTRICITY SECTOR IN KOSOVO	4
3.1 Transmission network	4
3.1.1 Transmission electricity losses	8
3.2 Distribution network	8
3.2.1 Distribution losses.....	9
3.3 Electricity generation	10
3.4 Total consumption and peak demand	12
3.5 Consumption in the distribution system.....	14
3.6 The balance of electricity production and demand in previous years (2000-2010)	15
4. ACTIVITIES RELATED TO THE CONSTRUCTION OF NEW GENERATING CAPACITY.....	17
4.1 Zhur Hydropower Plant.....	17
4.2 Renewable Energy Sources	17
4.3 Implicit and explicit incentives to build capacity	18
5. FORECAST OF DEMAND AND GENERATION.....	20
5.1 Forecast of demand for different growth scenarios	20
5.2 Electricity generation forecast for the period 2011-2020.....	21
5.3 The balance of production and consumption for the period 2011 - 2020	24
7 NATURAL GAS SECTOR	28
7.1 General description.....	28
7.2 Currently available production and import capacity	28
7.3 Forthcoming production and import investment for the next three years	28
7.4 Description of the role of regulatory or other authorities	28
7.5 Progress in major infrastructure projects	29
7.6 Generally Applicable Standards	29
8 OIL SECTOR	30
8.1 Import and consumption of crude oil and petroleum products.....	30
8.2 Domestic supply of crude oil and petroleum products	31
8.3 Stockholding of crude oil and petroleum products.....	31



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

8.4	Presence of Biofuels in oil market as an alternative	33
8.5	Oil infrastructure.....	33



Abbreviations

DH	District Heating
ECS	Energy Community Secretariat
EnC Treaty	Energy Community Treaty
EREGG	European Regulators Group for Electricity & Gas
ERO	Energy Regulatory Office
ESTAP	Energy Sector Technical Assistance Project
HPP	Hydro power plant
KfW	Kreditanstalt für Wiederaufbau
IPCC	Inter-governmental Panel for Climate Change
GIS	Generation Investment Study
GDP	Gross Domestic Product
ICMM	Independent Commission of Mines and Minerals
KEK JSC	Korporata Energjetike e Kosovës (Kosovo Energy Corporation)
KOSTT JSC	Kosovo Transmission and Market System Operator
LPG	Liquefied petroleum gas
MEM	Ministry of Energy and Mining
MED	Ministry of Economic Development
MTI	Ministry of Trade and Industry
PHLG	Permanent High Level Group of the Energy Community
SoSSoK	Security of Supply Statement of Kosovo
TPP	Thermal Power Plant



EXECUTIVE SUMMARY

Following the recommendations of the Energy Community Secretariat ECS, the Ministry of Energy and Mining (MEM) has developed the first Statement of Security of Supply of Kosovo (SoSSoK) in May 2007. MEM has updated this SoSSoK in May 2009 and May 2010. Now, based on the new Law on Energy Regulatory Office, ERO is responsible for developing the document on the statement of security of supply.

The current situation of electricity supply in Kosovo is not very satisfactory. Low payment collection rates and illegal use of electricity leads to its extensive use for heating, and limited availability of power generation capacities do not allow providing a steady electricity supply to all consumers. Therefore, the available power is distributed as best as possible, and customers are cut-off in load-shedding regime as necessary. To increase the payment discipline, areas with good collection rate A continue to be supplied with preference, whereas those with unsatisfactory collection rate in C areas are the first to be cut-off from supply when supply falls short. KEK, with the support of the Government, is implementing a comprehensive campaign to increase billing and collection. Results are promising.

About 97% of power generation in Kosovo is based on two lignite fired power plants of KEK: Kosovo A (5 units) and Kosovo B (2 units). Total installed capacity of both plants is 1,478 MW, which could have been sufficient to fulfil current Kosovo's demand for electricity if they were totally available. But, due to age, improper maintenance and operation during the years before and after the war and due to war damages, the reliability and net generation capacity of these plants have been seriously compromised.

Power generation during 2011 - 2020 will focus on meeting as best as possible the demand of consumers in Kosovo with stable, uninterrupted electricity supply at competitive prices. Imports will be required during this period. In order to meet the local growing demand and potentially export electricity surpluses, investments in the following projects are planned:

- Development of new units in a new TPP "New Kosova" with installed capacity of about 2*300. The first unit (300MW) is expected to be in operational early 2016, while the second unit 6 months later.;
- Construction of HPP Zhur. This HPP is planned to be operational early 2016. This project is considered very important for optimizing the work of the Power System;
- Construction of small HPPs by private investors; and
- Development of other renewable including wind farms. Base scenario for the development of renewable sources foresees the construction of a large number of small hydropower plants (> 16) reaching capacity of 140.3 MW by 2020.

The full development of the new lignite mine in Sibovc will go parallel with the Project for the TPP New Kosova. The Southwest Sibovc mine and that of the Sibovc as a whole will have enough reserves to accommodate the present generating capacity of TTPs Kosovo A and B, and the 600 MW additional capacity of TPP New Kosova for a period of 40 years.

Regarding development of New Kosova Project, it is expected that a private investor to build a new TPP "New Kosova" with installed capacity 2*300 MW. . This project comprises full development of the new mine in Sibovc and construction of new generation capacities of about 300 MW in the first phase, including transmission connection line.



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

Oil products import in Kosovo during 2010 was slightly lower than in 2009. All oil products that are imported are consumed within the country. Kosovo has no domestic oil supply and no pipelines. Oil products are imported approximately 80% by trucks and 20% by rail.

Current oil legislation obliges all petroleum product storages and sale points to possess at least 5% of the storage capacity for state emergency purpose. New law on oil sector is in the process of being drafted and is expected to be finalized by the end of 2011. The law must open the possibility for the creation of emergency oil storages and to meeting the total storage obligation of 90 days of net import by the end of 2020.



1. DESCRIPTION OF THE ROLE OF REGULATORY OR OTHER AUTHORITIES

The Energy Regulatory Office (ERO) is an independent agency established by the Assembly of the Republic of Kosovo in accordance with Articles 119.5 and 142 of the Constitution of the Republic of Kosovo.

The powers, duties and functions of the Energy Regulatory Office are set forth in the Law No. 03/L-185 among which are the following: creating and operating an efficient, transparent and non-discriminatory energy market; determining criteria and conditions for issuing licenses for the conduct of energy activities; determining criteria and requirements for granting authorizations for the construction of new generating capacity; monitoring and enhancing security of electricity supply; setting reasonable criteria and conditions for energy activities pursuant to tariff methodology; monitoring and preventing any abuses of dominant positions and anti-competitive practices by energy enterprises and dispute settlement in the energy sector.

The establishment of ERO falls within the wider framework of energy policy harmonization in South Eastern Europe. On behalf of Kosovo, UNMIK signed Energy Community of South East Europe (ECSEE). By doing that, Kosovo became an equal partner and player in establishing ECSEE, which is of prime importance for its economic development, because of favourable lignite reserves and the ideal position of Kosovo for power exchanges in the SEE region.

In general principles ERO is responsible for the establishment and enforcement of a regulatory framework for the energy sector in Kosovo, in order to achieve compliance with the obligations under the Treaty establishing Energy Community and harmonization to the *Acquis Communautaire* on energy, to ensure non-discriminatory access of all users to the energy networks at prices reflecting true economic costs, to ensure the effective unbundling of the vertically integrated utilities and the non cross-subsidization of prices, to promote competition and the efficient functioning of the energy market, and to promote economic efficiency by providing the appropriate long and short term pricing signals.

While performing its activities ERO co-operates with energy enterprises, Ministries (especially MED), different associations and institutions in Kosovo:

Ministry of Economic Development (MED) is, among others, responsible for energy sector strategy and policy (preparation and implementation), development of secondary legislation (including technical standards and norms), energy inspectorate, renewable energy sources and rational use of energy, coordination of donors and attraction of investments – representing the “State Energy Authority” according to MoU on REM;

Independent Commission for Mines and Minerals (ICMM), established pursuant to Regulation No. 2005/2 of January 21 2005 (as amended by Regulation No. 2005/38 of 29 July 2005 and Law 03/L-081 of 13 June 2008) is an independent agency regarding to the Articles 119, paragraph 5, and 142 of the Constitution of the Republic of Kosovo. The ICMM shall regulate mining activities in Kosovo in accordance with the present law, the sub-normative acts issued pursuant to the Law on Mines and Minerals, and the Mining Strategy.

Kosovo Energy Corporation J.S.C., the vertically integrated power utility of Kosovo including coal mining, power generation, distribution and supply, is currently the subject of incorporation and legal and accounting unbundling processes, which will be completed by the end of 2010;



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

KOSTT Established on 1 July 2006, as a result of the restructuring of the energy sector under the Energy Community Treaty for South-eastern Europe, KOSTT is responsible for planning, development, maintenance and operation of the electricity transmission system in Kosovo; ensuring an open and non-discriminatory access; functioning of the new electricity market; providing conditions that encourage competition in Kosovo; cooperating with neighbouring Transmission System Operators (TSO) for the benefit of Kosovo and the region.

KOSTT also has the responsibility to deliver electricity safely and reliably from generating units to the distribution system.



2. LEGAL BACKGROUND

This updated SoSSoK follows the structure proposed by the ECS in its communication of 09.10.2006, which limits the scope to electricity and gas sectors only, as per the relevant directives 2003/54/EC and 2003/55/EC.

The Energy Community Treaty in its article 29 calls for statements on monitoring of security of supply one year after the entry into force of the Treaty. In particular the statement should cover: a) diversity of supply, b) technological security and c) geographical origin of the imported fuels.

Furthermore, Article 4 of the Directive 2003/54/EC and Article 5 of the Directive 2003/55/EC require statements on monitoring of Security of Supply in the electricity and gas markets, in particular on:

- a) Supply/demand balance on the national market,
- b) Level of expected future demand and available supplies,
- c) Envisaged additional capacity being planned/constructed,
- d) Quality and level of maintenance of the networks,
- e) Measures to cover peak demand, and
- f) Measures to deal with shortfalls of one or more suppliers.

According to the above-mentioned articles, *“Member States shall ensure the monitoring of security of supply issues. Where Member States consider it appropriate they may delegate this task to the regulatory authorities.”*

According to the new Law on Energy Regulator, Article 37 / 3 provides that the Energy Regulatory Office shall prepare and publish every two years, by 31 July at the latest, a report outlining the findings resulting from the monitoring of security of supply issues, as well as details of any measures taken or envisaged to be taken to address them. In the past this responsibility belonged to the Ministry of Energy and Mining.

The European Commission has indicated that the obligations under the Energy Community Treaty should not go beyond the EU *acquis*. Therefore it will be sufficient to comply with the Security of Supply requirements under the energy *acquis*.



3. SITUATION OF SUPPLY AND DEMAND BALANCE IN THE ELECTRICITY SECTOR IN KOSOVO

Consumption of energy, electricity in particular, is one of the determining factors of a country's economic development. Countries that meet consumer needs through domestic production, have a good basis for economic development. Kosovo has the best prerequisites for the production of electricity, not only to meet its own needs, but to also export it. Kosovo's power system is designed to produce lignite-based basic energy. To balance the system one needs to monitor changes in consumption on a daily and seasonal basis through the production and import. If that fails then load shedding is applied for customers.

The electricity sector in Kosovo is characterized by insufficient production of electricity, unreliable supply and high technical and commercial losses.

ERO has licensed TPP Kosovo A and Kosovo B, which are parts of KEK, and HPP Ujmani and HPP Lumëbardhi for electricity production.

Wind plants in Golesh as well as small hydropower plants, HPP Dikance and HPP Radavc, are operational since 2010.

Lack of investment for a long time in the transmission and distribution network has caused congestions and insufficient supply in many parts of the network. In recent years, investments have been made which have greatly improved the operation of the power system, especially the transmission network.

3.1 Transmission network

The interconnection of the Kosovo transmission network with the region and Europe is mainly carried out through 400kV voltage level lines. With the neighbouring countries Kosovo is also interconnected through 220 kV and 110kV lines. Kosovo has a strong interconnection network that will be further strengthened through the construction of Kosovo B - Kashar (Tirana) 400kV line.

For a long period of time, especially from 1990 to 2000, the transmission network received neither adequate investment nor maintenance. The result of this is that a number of lines and transformers are overloaded and in inadequate operational condition, causing frequent interruptions and major losses of electricity.

From 2000 - 2010, investment has been carried out to enhance and improve the transmission network capacities. This investment has increased security of supply and transmission losses have been reduced. Below is a short list of the investments that have been carried out:

- Installation of AT3 at SS 400/220 kV, Kosovo B
- Rehabilitation of distributing substations 220 kV in Glllogoc
- Replacement of switches 110 kV, NS PR1 & SS PR 2
- Local SCADA in SS KOS B 400/220 kV
- Replacement of relay protections in SS Kos B and SS PR 4 and controlling system
- Strengthening of transmission lines 110 kV that connect SS Kosovo A, 220/110 kV with SS Vushtrria and SS PZ 1 with SS PZ 2
- Changing line (no. 212) 220 kV into line 110kV
- Project SS Peja 3, 400/110 kV, 300 MVA
- Installation of AT1 at SS 220/110 kV, Kosovo A
- New line 110 kV SS Rahovec – SS PZ2



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

- Revitalization of equipment of HV 400 kV at NS 400/220 kV, Kosova B
- Replacement of conductors in Line 110 kV (no. 126/1), SS Gjakova 1 - SS Deçan
- Autotransformer AT3 150MVA at SS 220/110 kV, Prishtina 4
- Revitalization of equipment of HV at NS 110/10(20) Prishtina 1
- The following investments are underway:
- Rehabilitation of SS 220/110kV, Kosova A
- SCADA/EMS & Telekom
- ITSMO – Meters (except for SS Vallaq and HPP Ujmani where those were not completed)

Following are the projects initiated in previous years, continued in 2010 and now in progress:

- Project for the implementation of the Kosova-Albania 400 kV line
- Packet Project 400/110 kV, Ferizaj 2
- Replacement of conductors in 110kV line, SS Peja 1 – SS Peja 2

Projects initiated in 2010 and now in progress:

- Revitalization of high voltage equipment and installation of ATR3 150 MVA transformer at SS 220/110kV, Prizreni 2
- IT System for Market Operator

Among these investments is to be singled out, in particular, the construction of the substation Peja 3, 400/110 kV, at the capacity of 300 MVA, which was put into operation in November 2009 and which has led to the elimination of network congestion in the Dukagjini region. With the construction of this substation, security of supply has increased, the quality of voltage has improved and transmission technical losses have been greatly reduced in this region and in the network in general. In the framework of this project, further investment in facilities that will connect this substation with other existing substations is expected to be carried out.

The tables below show transforming capacities and transmission network lines as per voltage levels.

Tab.3.1. Basic data on transmission substations

Voltage	Owner	SS. No.	TR. No.	Power
400/220	KOSTT	1	3	1,200
400/110	KOSTT	1	1	300
220/110	KOSTT	3	8	1,200
220/35	Alferon	1	2	320

Tab.3.2. Basic data on transmission lines

Voltage (kV)	Owner	Length (km)
400	KOSTT	181.81
220	KOSTT	231.88
110	KOSTT	727.60

Kosova has a favourable position as a powerful cross-regional link, and through its transmission network a considerable flow of electricity, by connecting the northern part of the region which has multiple production capacity and the south which suffers from electricity shortfall.

The following figure shows the volumes of energy flows for each interconnection line of Kosova in both directions.

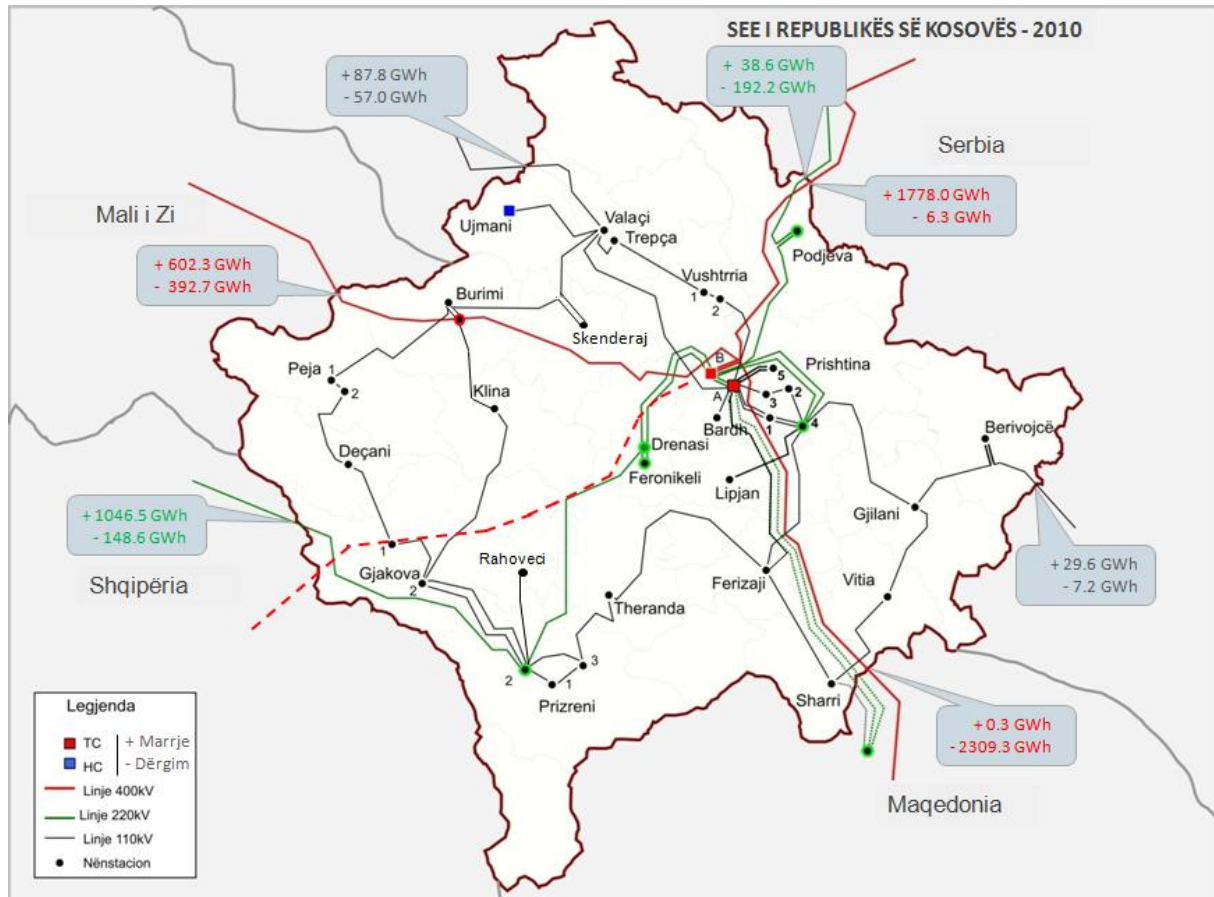


Fig.3.1. Energy flows into interconnection lines

Kosova is a country with a high transit of electricity, at a ratio of up to 50% of transit to consumption (the transit key). This strengthens the position of the transmission system, but also increases transmission losses and leads to network congestion. To manage the regional transit a mechanism for calculating the transit compensation between TSOs (ITC mechanism) has been established. Kosova has not been included in this mechanism due to the issues with Serbia. As a consequence, losses caused by transit in Kosova are recovered through fees from regulated customers. KOSTT is also being hampered by Serbia in the allocation of interconnection capacity lines.

Network overload causes increased losses, making the equipment obsolete and interrupting supply. To evaluate the load of the transmission network, an analysis of electricity flows through the network and the maximum values of consumption is required. To carry out these tests, five (5) peak values (maximum loads) occurring across different weeks in 2010 are used. The highest load, 1158 MWh/h, was recorded on 25 January 2010.

The following table shows five peak values for 2010.

Tab.3.3 Five peak values in 2010

Peak	MW	Date	Day
I	1,158	25.01.2010	Monday
II	1,112	31.01.2010	Sunday
III	1,091	31.10.2010	Sunday
IV	1,088	03.02.2010	Wednesday
V	1,085	16.12.2010	Thursday



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

Daily diagram extracted as an average for the whole year 2010 shows that daily production was almost constant, while consumption has changed at day - night intervals. Load shedding has also an impact in the form of daily chart.

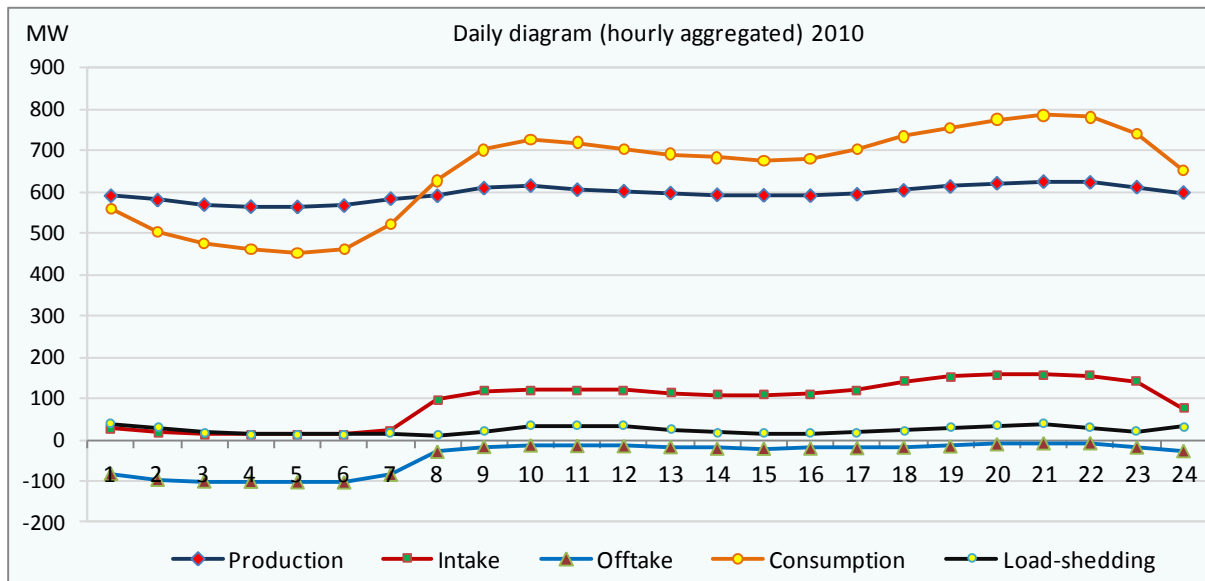


Fig.3.2. Daily diagram presented in average values for 24 hours for 2010

The difference of consumption into day/night tariffs is quite high. The chart below shows the difference between the maximum and minimum average values of daily consumption by months for the year 2010.

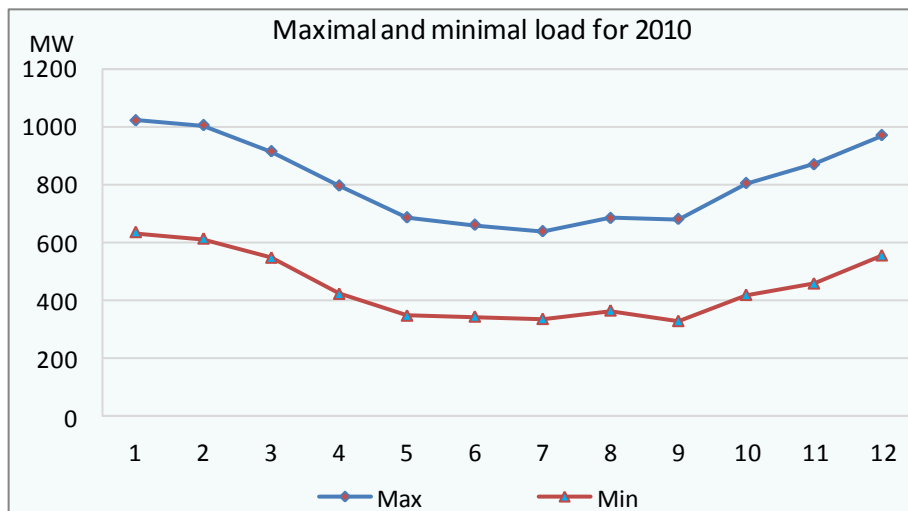


Fig.3.3. Monthly average of maximal and minimal loads

Changes to production, consumption, import/export and load shedding of electricity can also be shown through hourly charts. Following are charts showing these data for two peculiar months (September and December).



3.1.1 Transmission electricity losses

Electricity transmission losses in 2010 are significantly lower compared to those in 2009. These losses recorded a decline from 197 GWh (3.31%) in 2009 to 131 GWh (2.38%) in 2010. The total amount also includes losses caused by electricity transit through the transmission network.

The table below shows a continuous decline in transmission losses recorded in recent years.

Tab.3.4 Transmission losses 2008-2010

Year	Gross consumption	Losses	
	MWh	MWh	%
2008	4,943,714	214,814	4.35
2009	5,275,108	174,573	3.31
2010	5,505,716	131,043	2.38

Within the transmission losses are also included losses caused by transit.

3.2 Distribution network

The distribution network is not in good condition due to lack of investment for a long period, inadequate maintenance and a large proportion of obsolete equipment. Consequently, technical energy losses in the distribution network were about 18%. The distribution network includes lines of voltage levels of 35 kV, 20 kV, 10 kV, 6 kV and 0.4 kV and relevant substations. The table below shows basic data on distribution lines and transformers by voltage level.

Tab.3.5. Basic data of DSO lines

Voltage (kV/kV)	Owner	Arial network	Cable network (km)	Length (km)
35	KEK	648.42	26.38	674.80
10(20)	KEK	297.72	184.66	482.39
10	KEK	5,159.76	801.00	5,960.76
6	KEK	44.14	1.58	45.72
0.4	KEK	11,503.78	485.98	11,989.76



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

Tab.3.6 The number of substations by voltage level in DSO

Voltage (kV/kV)	Owner	SS. No.	TR. No.	Power
220/35/10(20)	KEK	1	1	40.00
220/10(20)	KEK	1	1	40.00
110/35/10(20)	KEK	6	10	312.00
110/35	KEK	7	13	438.00
110/10(20)	KEK	2	4	143.00
110/10	KEK	9	14	472.00
110/35/6.3	Trepça	1	2	63.00
110/35	Trepça	-	2	126.00
110/6.3	Sharri	1	2	40.00
110/35	Ujmani	1	1	20.00
35/10	KEK	52	100	641.80
35/06	Birra Peja	1	1	4.00
35/0.4	KEK	1	1	0.63
(10)20/0.4	KEK/private	1,117	1,159	318.57
10/0.4	KEK/private	5,382	5,492	1,521.00
6/0.4	KEK	37	37	7.13

Following are the major investments carried out in the distribution network in the period 2000-2010:

Tab.3.7 Investments in the distribution network in the period 2000- 2010

No	Voltage (kV/kV)	Power (MVA)
1	TS 220/35/10(20) kV Podujeva	2x40
2	TS 110/10(20) kV Berivojce	1x31.5
3	TS 110/10(20) kV Prishtina 5	2x40
4	TS 110/10(20) kV Vushtrria 2	2x31.5
5	TS 110/10(20) kV Peja 2	2x31.5
6	TS 110/10(20) kV Rahoveci	2x31.5

Only during 2010 have been constructed 148.4 km line at 10 (20) kV level and 40.5 km line at 0.4 kV level. Also have been constructed of 190 SS 10/0.4 kV with total power of 37.8 MVA.

2.2.1 Distribution losses

General distribution losses are very high. These losses are divided into technical losses which occur in the network elements, and commercial losses which occur as a result of misuse of electricity.

In 2010 total losses were 1.879 GWh (41.22%), while in 2009 such losses were 1.895 GWh (42.80%).

Technical losses in 2010 were 748 GWh (17.20%) and commercial losses were 1.095 GWh (24.2%) of consumption in distribution system.

Based on Table below technical losses in 2010 are lower by 0.85% to what they were in 2009, and commercial losses were lower by 0.74%.

Tab.3.8 Distribution losses by districts in 2010

Years	Technical Losses	Commercial Losses	Total Losses
	%	%	%
2008	17.05	25.76	42.82
2009	18.05	24.76	42.80
2010	17.20	24.02	41.22

3.3 Electricity generation

Electricity generation in Kosovo is mainly based on thermal energy from two power plants: Kosova A and Kosova B. Total installed capacity of both plants is 1,478 MW, which could have been sufficient to fulfil current Kosovo's demand for electricity if they were fully available. Table 3.9 shows relevant information on the capacity of generating units of TPP Kosova A and TPP Kosova B.

Tab.3.9 Thermo-generating capacities

Generating units	Capacity of TPP units (MW)			Fuel	Ton/MW	Year of construction
	Installed	Net	min/max			
A1	65	operational		Lignite/oil		1962
A2	125	operational		Lignite/oil		1964
A3	200	182	100-130	Lignite/oil	1.7-1.9	1970
A4	200	182	100-130	Lignite/oil	1.7-1.9	1971
A5	210	187	100-135	Lignite/oil	1.7-1.9	1975
TPP Kosova A	800	551				
B1	339	310	180-260	Lignite/mazut	1.40-1.45	1983
B2	339	310	180-260	Lignite/mazut	1.40-1.46	1984
TPP Kosova B	678	620				

Units A₁ and A₂, are out of operation with an undefined status yet; whereas urgent and capital repairs have been performed in unit A3 in 2006, unit A4 in 2007 and unit A5 in 2008. Since September 2007, active power of both units of TPP Kosova B has been reduced due to damages in the low pressure rotors of both turbines. For this reason, currently, the maximum net available power of unit B1 is 240MW, while that of the unit B2 is 280MW.

Apart from Kosova A and Kosova B, which are managed by KEK, the Hydro Power Plant Ujmani (2 x 17.5 MW), managed by the public enterprise, Iber-Lepenci, and four small hydro power plants, which were given to private investors in concession, are operating. Table 2 shows relevant information on the capacity of generating units of hydro power plants.

Tab.3.10 Hydro-generating capacities

Generating units	Capacity of HPP units (MW)		Year of construction
	Installed	Net	
Ujmani	35.00	32.00	1983
Lumbardhi	8.80	8.00	1957 (2006)
Dikanci	1.34	1.32	1957 (2010)
Radavci	0.28	0.28	1934 (2010)
Burimi	0.48	0.47	1948 (2011)
Total HPP	45.90	42.07	



Thus, the overall available power generation capacity is about 900 MW.

The chart below shows the total generation within Kosova for the years 2000-2010 where a continuous increase, as a result of investment in the repair of generating units, is evident.

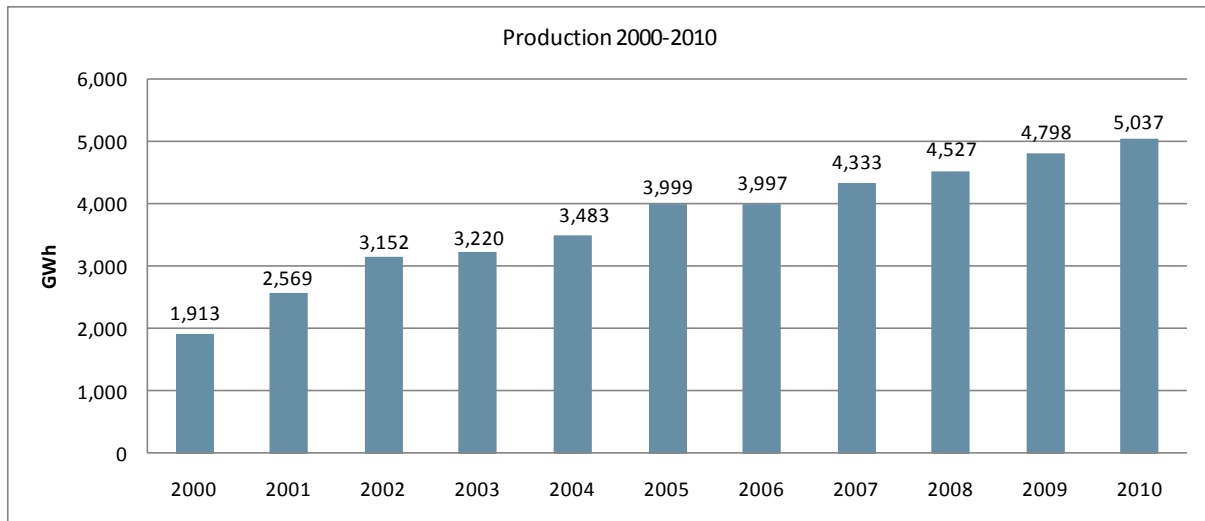


Fig. 3.4 Total generation 2000-2010

The share of each plant in total electricity generation in Kosova in 2010 is shown in the chart below.

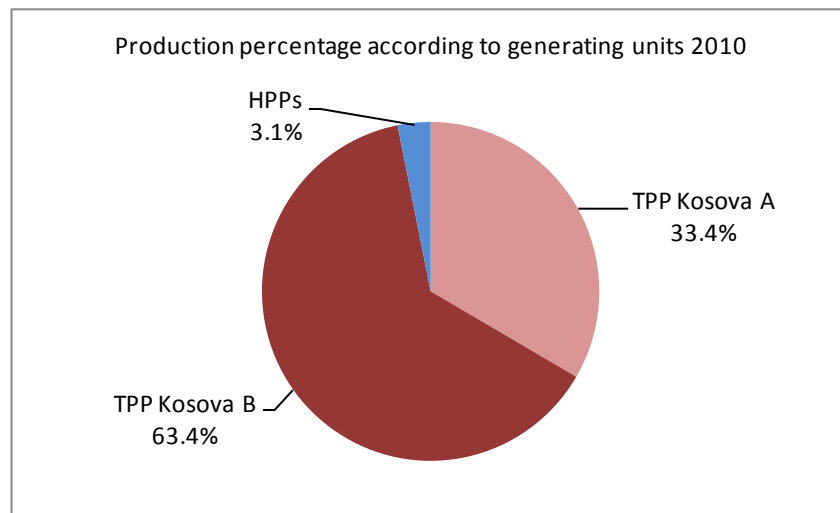


Fig. 3.5 share of each plant in total electricity generation in 2010

TPP Kosova B covered 58% of total demand in Kosova, Kosova A covered 30.6% and 2.9% was covered by hydropower plants (HPP Ujmani and HPP Lumëbardhi). Imports covered the remaining 8.5%.

3.4 Total consumption and peak demand

The period 2000-2010 has been characterized by substantial growth in electricity demand in Kosovo. Annual average growth is 8.6%. Total demand grew during the period 2000-2010, which can be seen from the chart below.

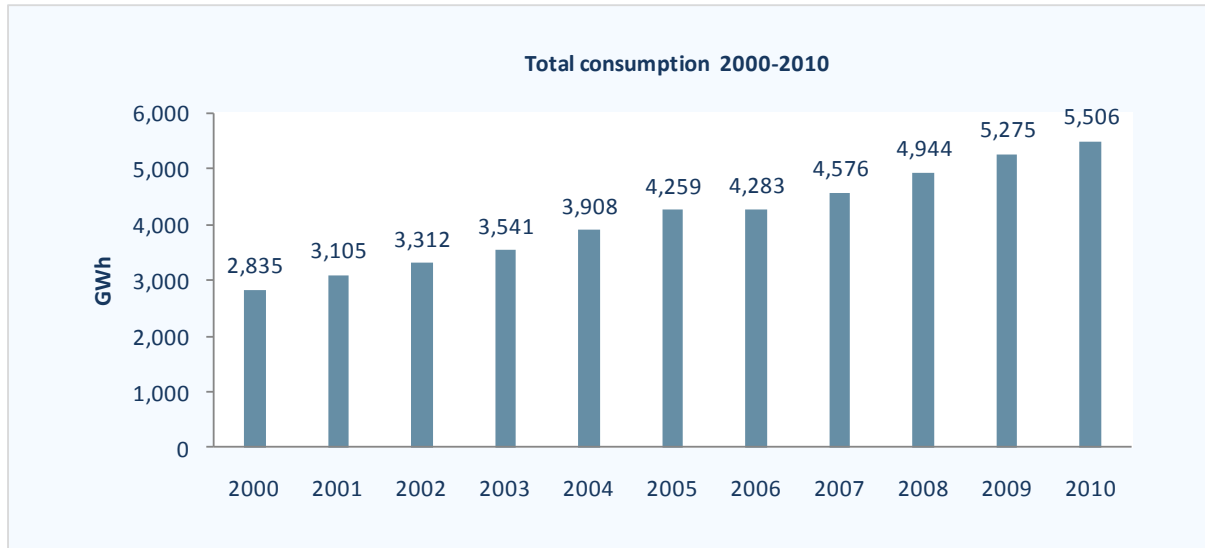


Fig. 3.6 Total demand 2000-2010

Total net energy demand imposed to the system for 2009 was 5,275 GWh, with the winter peak 1051 MW; and for 2010 it was 5,506 GWh, with the winter peak demand reaching 1158 MW. These energy and peak demands have been registered with the load shedding regime.

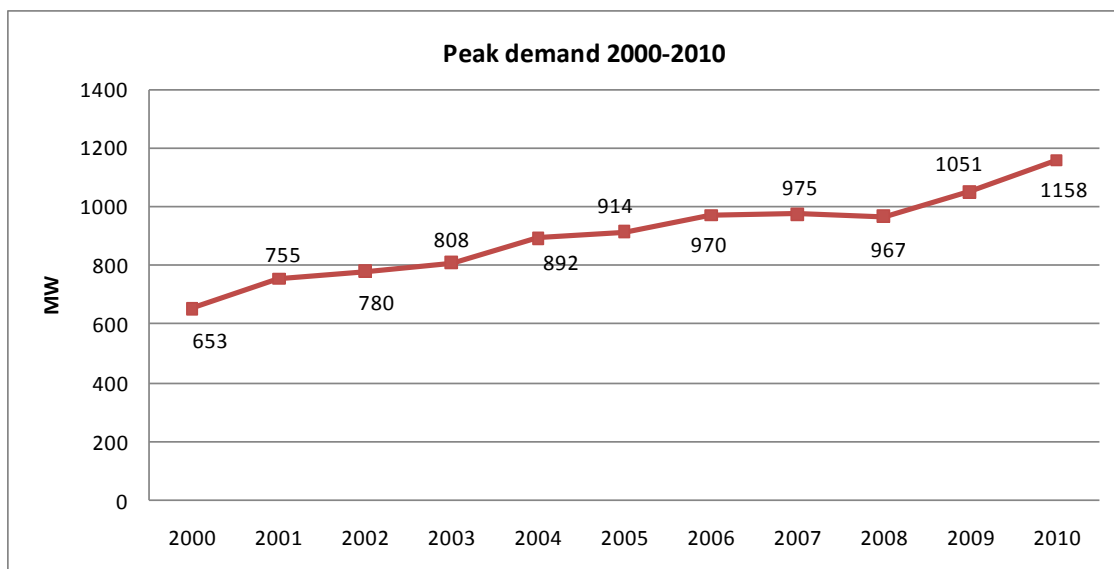


Fig. 3.7 Peak demand 2000-2010

Consumption of electricity by customer category for 2010 is given in Table 3.11. It should be emphasized that the following customers: Ferronikeli, Trepça and Sharrceci are connected in the transmission network.



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

Tab.3.11 Consumption by spenders and energy losses

Customer Category	2010	Participation in total consumption
	GWh	MWh
Transmission losses	131	2.4%
Ferronikeli	620	11.3%
Trepça+Sharrcemi	81	1.5%
Internal consumption of KEK	115	2.1%
Net distribution	2,680	48.7%
Technical losses	784	14.2%
Commercial losses	1,095	19.9%
Total	5,506	100%

The table 3.11 shows that technical and commercial losses are too high, respectively 14.2% and 19.9% of total consumption. Such high value losses have more negative impact in the security of electricity supply.. Figure 3.8 shows the contribution of various categories in total consumption 2010.

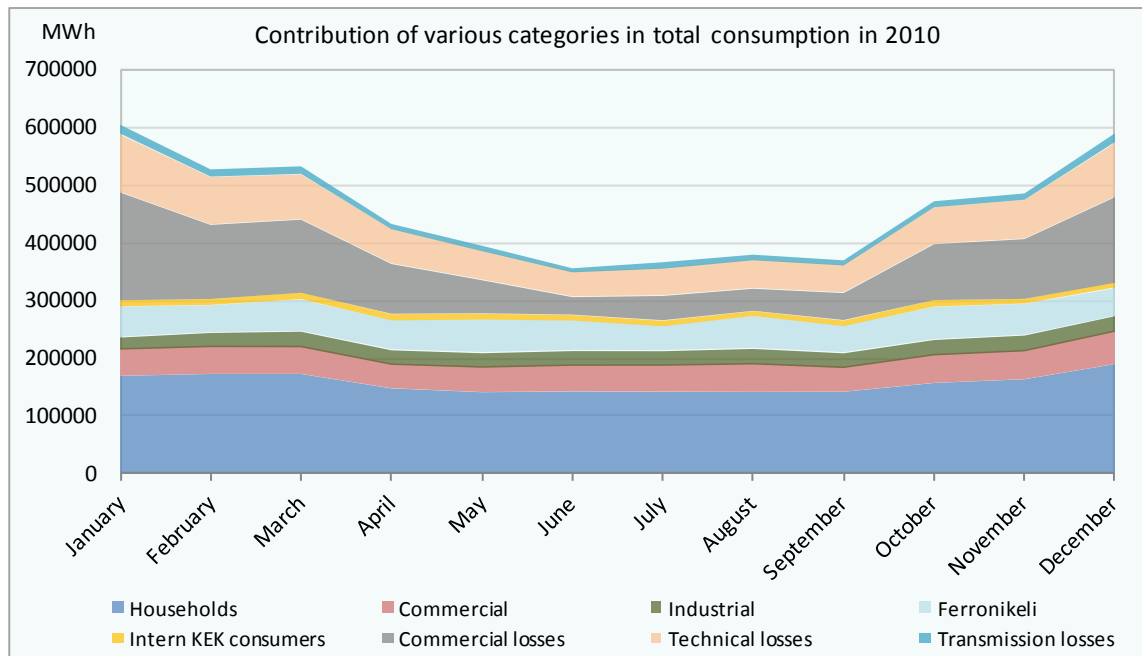


Fig.3.8 Contribution of various categories in total consumption 2010

3.5 Consumption in the distribution system

For the period 2000-2010 consumption in distribution system is characterized by substantial growth. Annual average growth is about 7 %. Total demand in distribution during the period 2000-2010, can be seen from the chart below.

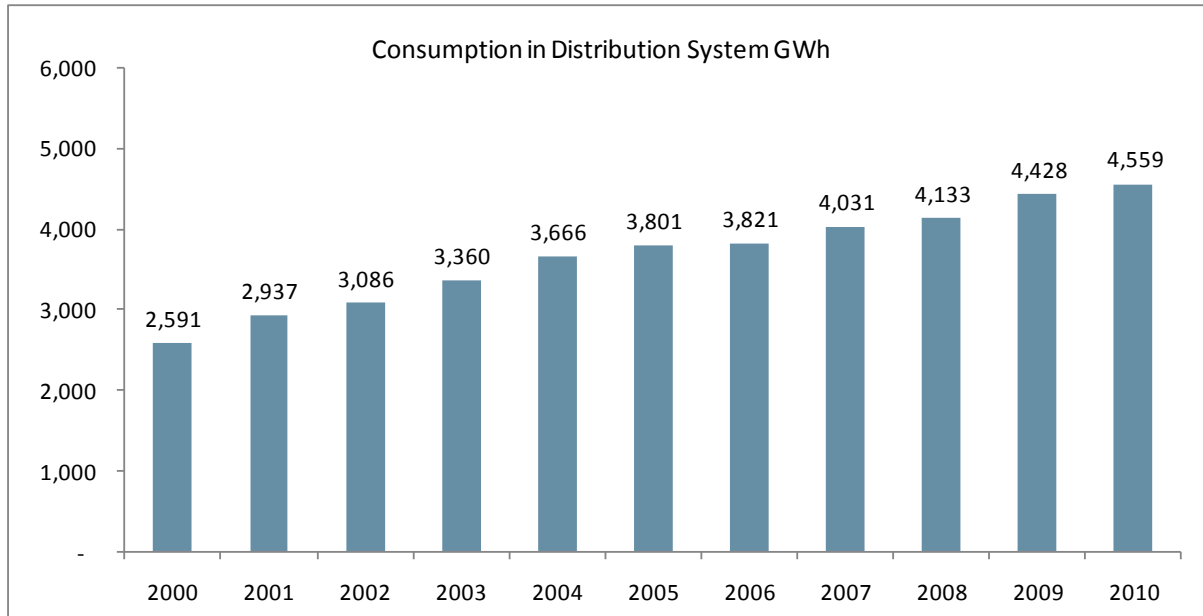


Fig. 3.9 Total consumption in Distribution System 2000-2010

Despite efforts to prevent planned load-shedding of electricity, even during 2010, ABC scheme continued to be applied. Compared to 2009 a considerable decline in load shedding was recorded, from 373 GWh to 205 GWh in 2010.

Table 3.11 shows the structure of electricity consumption into tariff categories. Household consumption versus total consumption billed is 69.9% which represents an economy with low industrial development. Commercial customers make 21.3% of total consumption in distribution, industrial consumers connected to distribution make 8.5% and public lighting makes 0.4%.

Tab.3.11 Consumption in distribution system into tariff categories 2008 - 2010

Consumption per categories	2008	2009	2010
	MWh	MWh	MWh
110 kV (transmission: Sharri & Trepça)	84,311	83,627	80,974
35 kV	41,593	38,616	35,755
10 kV	174,246	188,862	190,845
Households below 200 kWh/month and hospitals	503,755	560,908	628,056
Households (201-600)kWh/month	594,346	666,314	750,562
Households over 600 kWh/month	479,798	484,578	465,617
0.4 kV I	140,983	177,877	200,572
0.4 kV II	326,122	350,033	369,382
Public lighting	7,926	8,514	9,949
Unmetered households	77,348	56,923	28,974
Total	2,430,428	2,616,253	2,760,687



Figure 3.10 shows contribution of tariff categories in total consumption in distribution.

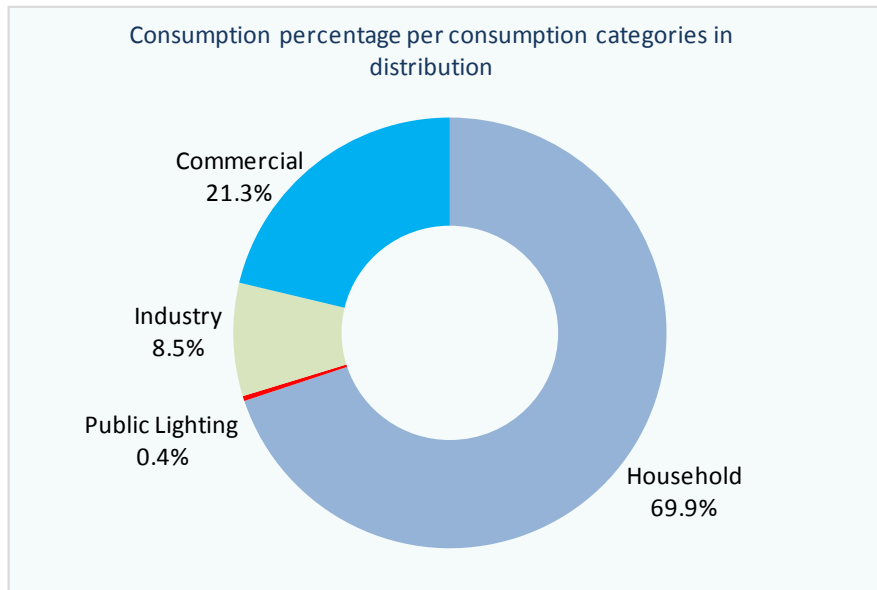


Fig.3.10 Contribution of consumption categories in distribution

3.6 The balance of electricity production and demand in previous years (2000-2010)

The balance of electricity production and demand in previous years (2000-2010) is presented in Figure 3.11:

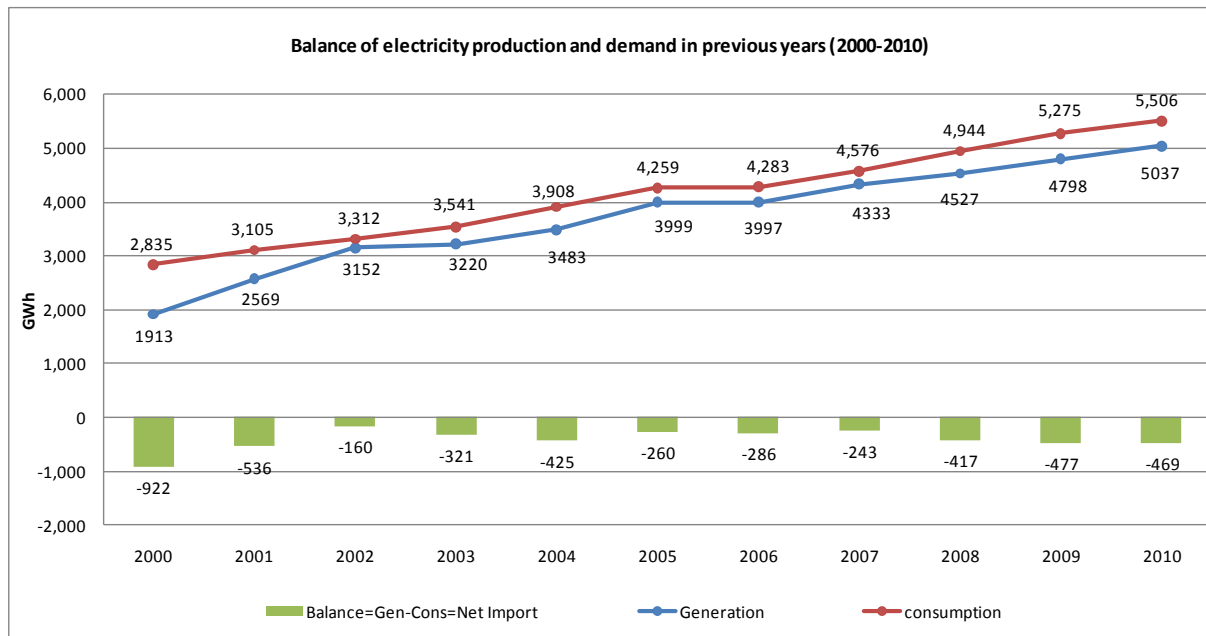


Fig. 3.11 Balance of electricity production and demand in previous years (2000-2010)

Total consumption, from 2000 to 2010 increased on an average of 8.6%. Generating units, since after the war and to the present have not been able to meet electricity demand. It has been therefore necessary for electricity to be imported to meet the electricity demand.



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

The figure above clearly shows the level of net imports to ensure supply of electricity to consumers. Average net imports from 2000 to 2010 make 10% of total consumption in the Republic of Kosovo.

It could be said that during the period 2008, 2009 and 2010:

- Country's electricity production has been lower than the demand level;
- During winter seasons there have been occasions of insufficient coal supply to operate all units of the two power plant units;
- Revitalization of TPP Kosovo A units was not conducted as planned according to the 2005 study, consequently making their revitalization in the future unreasonable;
- Technical and commercial losses are still at very high level;
- Demand side management of electricity consumption was not implemented; Collection of billed electricity consumed has been at low rates, but in recent years collection rate has increased. Worrying is the high level of commercial losses. Electricity supply has been balanced with load shedding according to ABC scheme; and
- Continued electricity import during the recent years covers 9% percent of the consumption.



4. ACTIVITIES RELATED TO THE CONSTRUCTION OF NEW GENERATING CAPACITY

During 2009 and 2010, numerous meetings of the LPTAP Steering Committee have been held, discussing key points regarding the process that will ensure private investment for the implementation of the TPP "New Kosova" and proposals for the construction of the TPP. The proposals are based on professional technical studies prepared by prestigious companies, as well as analyses prepared by the project advisors on legal and financial issues. The Project's Steering Committee, during this period, instructed the project advisors on the finalization of the draft documentation for the tender.

A turning point in moving the project for the construction of the new power plant "Kosova e Re" forward are considered to be the decisions of the Government of the Republic of Kosova on the direction of the development strategy of the energy sector, which can be summarized as follows:

- To support the construction of the "Kosova e Re" Power-Plant with a capacity of 2 x 300 MW located near the existing "Kosova B" site.
- To support the opening of the coal mine in Sibovc.
- To revitalize and repair the existing TPP "Kosova B" through a public-private partnership.
- To close TPP "Kosova A" by the end of 2017 at the latest.
- To continue with the process of KEK's restructuring and privatization.
- To support the development of new' generating capacity using renewable energy sources.

In August 2010 the steering committee and Government of Kosovo has prequalified four companies for the construction of new power plant Kosova.

4.1 Zhur Hydropower Plant

A presentation of a feasibility study on the proposed Zhur hydro power plant was held in Prishtina on 3 June 2009 by World Bank-funded consultants within the framework of the Lignite Power Technical Assistance Project. The proposed hydropower plant Zhuri would be located in the southwest of the municipalities of Prizren and Dragash and would have a capacity of 305 MW, with an average annual production of 400 GWh.

ERO is a participant in the technical group that monitors and coordinates activities related to this study and has taken part in the meetings held with the consultants.

4.2 Renewable Energy Sources

Referring to long-term goals of the Kosova Strategy, government policies, i.e. the Decision No. 05/250 on "Measures for promoting generation of electricity from renewable sources and electricity from co-production in Kosova for the period 2007 - 2013", Decision 06/2007 on "Consumption of electricity from renewable sources", "Pre-feasibility study to identify water sources for small hydro-plants in Kosova", as well as obligations deriving from the South Eastern European Energy Treaty in the field of new generating capacities from renewable sources, ERO has completed the secondary legislation on renewable energy sources.

An important activity for ERO is considered to be the issuing of Authorizations for the construction of new generating capacities that will use renewable energy sources, in accordance with the Rule on



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

the Authorization Procedure for the Construction of New Generating Capacities, Gas Networks, Direct Power Lines and Direct Pipelines based on Article 38.1 of the Law on Energy Regulator.

ERO has reviewed applications/requests received for authorization for the construction of new generation capacities, in accordance with the laws on the energy sector and relevant regulations, ensuring that such applications have been reviewed in an objective, transparent and non-discriminatory manner. In reviewing these applications, ERO has taken into account relevant criteria that had to be met by the applicant as required by the Rule on the Authorization Procedure for the Construction of New Generating Capacity, Gas Networks, Direct Electric Lines and Direct Pipelines.

ERO determined that the applicants met the requirements and criteria to obtain notice of preliminary authorization as specified in the Procedure, and these enterprises are presented in the Table 4.2.

Tab.4.2 Enterprises which have been issued Notice of Preliminary Authorization

No.	Name of company	Description of activity	Installed capacity	Location	Issuance date
1	"Windparkcompany" (KTW) LLC	Construction of generator to produce electricity from wind	100MW	MA Shtime, Republic of Kosova	V_241_2010 24 March 2010
2	"Wind Power" JSC	Construction of generator to produce electricity from wind	900kW	Bostan, MA Novobërdë, Republic of Kosova	V_248_2010 24 June 2010
3	"Kelkos-Energy" LLC	Construction of generator to produce electricity from water	23MW	Lumëbardhi II, Belaja and Deçani, MA Deçan, Republic of Kosova	V_296_2010 11 November 2010

Enterprises which have been issued a preliminary authorization may be provided with a final authorization, if they meet the conditions set forth in the Rule on Authorization Procedure.

Following issuance of the notice of preliminary decision for the construction of new generating capacities, in accordance with the conditions and criteria specified in the Authorization Procedure, ERO has received applications/requests for notice of preliminary decision to be converted into final authorization. Following is the enterprise which has been issued final authorization.

Tab.4.3 Enterprise which has been issued Authorization

No.	Name of company	Description of activity	License number	Location	Issuance date
1	"Wind Power" JSC	Construction of generator to produce electricity from wind	900kW	Bostan, MA Novobërdë, Republic of Kosova	V_299_2010 11 November 2010

4.3 Implicit and explicit incentives to build capacity

For the promotion of electricity generation from renewable energy sources the Law No. 2004/8 on Energy Article 11 requires that participants in the energy sector perform the following tasks:

- a) when dispatching generation, the transmission system operator shall give priority to generation using renewable energy sources as permitted under the Grid Code and other applicable rules and regulations;
- b) system operators shall establish and publish standard rules on who bears the costs of technical adaptations, such as grid connections and grid reinforcements, necessary to integrate new generators feeding electricity produced from renewable energy sources into the interconnected system. Such rules shall be approved by the Energy Regulatory Office, shall be consistent with the Energy Strategy and shall be based on objective, transparent and non-discriminatory criteria, taking particular account of all the costs and benefits associated with the connection of these producers to the system;



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

- c) system operators shall provide any new generator wishing to be connected with a comprehensive and detailed estimate of the costs associated with the connection; and
- d) system operators shall establish and publish standard rules relating to the sharing of costs of system installations, such as grid connections and reinforcements, between all generators benefiting from them. Such rules shall be approved by the Energy Regulatory Office, shall be consistent with the Energy Strategy and any applicable secondary legislation on the tariff methodology.

Regarding promotion for developing renewables, MEM has adopted annual and long-term indicative targets, ERO has approved feed-in tariffs, and Government has mandated KEK JSC to enter in 5-year PPAs with power producers from renewable resources.

Market design and the associated market rules that are under development will consider requirement of paragraph a) above in this section.

As required by paragraphs b) c) and d) above in this section, KOSTT j.s.c has developed and ERO has approved the Connection Charging Methodology. This document was developed under fully transparent and non-discriminatory criteria that define obligations for each party. KOSTT j.s.c has sent to ERO the approved Connection Charging Methodology for amendment. Amendments requested will detail procedures, costs and obligations.

5. FORECAST OF DEMAND AND GENERATION

The key problems identified and the potential trends for future energy supplies in Kosovo are: Electricity consumption growth in the transition period leads to an increase in non-technical losses (illegal use) and a reduction in security of supply

- Lack of alternative energy sources (e.g. natural gas) and low electricity prices (for many consumers the price was zero, since electricity consumed by them has not been paid for years) has resulted in significant usage of electricity by the residential sector (households/apartments) and the service sector (communications and space heating)
- Relatively high prices of other energy sources (e.g. fuel oil), which have to be paid for at delivery, are pushing consumers to focus largely on using electricity
- The increase of petrol and diesel consumption in transport has contributed to the growth of the overall energy imports into Kosovo.

5.1 Forecast of demand for different growth scenarios

In developing its energy demand forecasts three possible scenarios of the Gross Domestic Production (GDP) growth rate are considered for the period 2011-2020 as shown in Table 5.1.

Tab. 5.1 Three scenarios of GDP growth rate in [%] for the period 2011-2020

Annual growth (%)	GDP	GDP
	2011-2014	2015-2020
Low Growth Scenario	3%	3%
Base Growth Scenario	3%	3%
High Growth Scenario	5%	5%

(scenarios that are built do not claim to be precise in predictions, because so much data and a very clear development strategy for the various economic and social sectors are needed. Base scenario considered more acceptable on forecast of demand)

The medium demand scenario (MDS) for electricity envisages a modest increase of demand in the household sector, whereas high increase of demand is projected for the services and industrial sectors. Electricity demand (base scenario) in 2011 is projected at 6,5916 GWh/year; for 2012 is projected at 6144 and in 2020 it will reach 7530 associated this with a peak loads of 1175 MW, 1190 MW and 1410 MW in 2020. Gradual reduction of commercial losses down to 5% during the period 2010-2012 is assumed in this scenario.

Electricity demand and peak loads for the three scenarios: (a) MDS - medium demand scenario and (b) HDS – high demand scenario, are presented in Table 52.

Tab 5.2 Electricity demand and peak loads for the period 2010 – 2020

Gross Demand of Kosovo (GWh)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average growth
Base Growth Scenario (medium)	5916	6144	6323	6499	6674	6853	7035	7210	7381	7530	3.04%
High Growth Scenario	6010	6280	6550	6832	7112	7404	7655	7916	8177	8430	4.10%
Low Growth Scenario	5760	5904	6046	6167	6290	6416	6544	6655	6762	6890	2.21%
Peak Load (MW)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average growth
Base Growth Scenario (medium)	1175	1190	1220	1250	1283	1310	1340	1365	1390	1410	2.53%
High Growth Scenario	1183	1215	1250	1290	1330	1375	1415	1460	1510	1550	3.41%
Low Growth Scenario	1145	1155	1175	1195	1215	1240	1260	1280	1300	1320	1.91%

The forecast of increased demand according to the high demand scenario (HDS) implies unreasonable and premature investments for the construction of new power generation capacities as well as investment for expanding the capacities of the transmission and distribution networks.



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

Base growth scenario of total gross electricity demand as well as for other consumer categories including technical losses in the transmission and distribution network and commercial losses in the DSO (Distribution System Operator), for the period 2011 - 2020 are shown in Figure 5.1 and Table 5.3.

Tab. 5.3 Basic scenario of electricity demand for 2011-2020 divided into customer categories

Base scenario of demand (GWh)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Domestic consumers (residential)	2,051	2,248	2,513	2,704	2,893	3,095	3,258	3,413	3,560	3,701
Commercial consumers (services etc)	568	627	675	711	762	816	860	904	946	995
Eligible consumers (industrial, etc)	1,266	1,332	1,348	1,405	1,445	1,487	1,524	1,575	1,631	1,674
Technical losses in distribution	818	886	895	891	898	898	890	874	862	846
Commercial losses	1,032	860	695	585	467	343	281	216	148	75
Transmission losses	180	190	197	203	209	215	222	228	235	241
Total	5,916	6,144	6,323	6,499	6,674	6,853	7,035	7,210	7,381	7,530

Technical and commercial losses are forecasted to be reduced in a linear way, despite the continuing growth of demand.

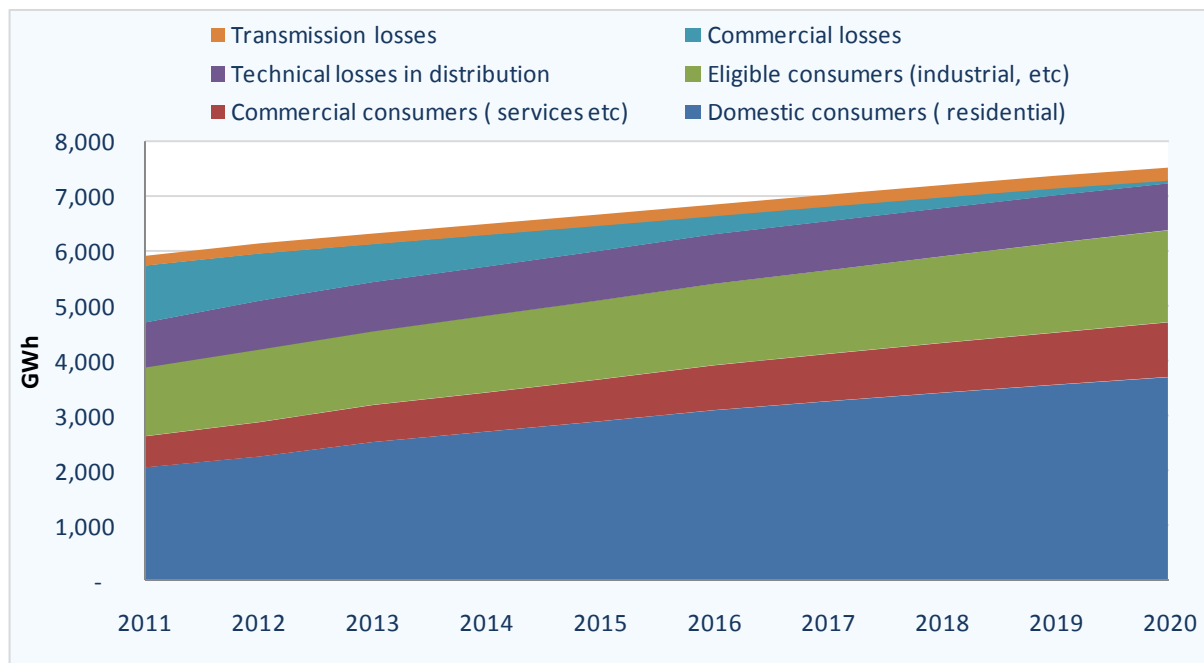


Fig 5.1 Basic scenario of electricity demand for 2011-2020 divided into consumer categories

It should be noted that the data of industrial consumption forecast have been provided by Trepca and Sharr-Cem (KOSTT questionnaires) and the forecasted demand by Ferronikeli. Development of the rest of the industrial consumption such as food industry, light industry, parks of manufacturing businesses etc is primarily based on forecasts of GDP as the main factor for the development of this sector, respectively growth of industrial consumption in electricity.

5.2 Electricity generation forecast for the period 2011-2020

The forecast of power generation for the period 2011-2020 is based on production of electricity from TPP Kosova B, TPP Kosova A, HPP Ujman, existing small HPPs, renewable energy sources, HPP Zhur and production form TPP New Kosova (table 5.4 and 5.5).



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

Tab 5.4 Basic scenario of developments in the existing generation capacity

EXISTING GENERATION CAPACITY				
	Units	Years of construction	Action	Life
Existing TPP	Kosova A			
	A3	1970	Periodic repairs	2017
	A4	1971	Periodic repairs	2017
	A5	1975	Periodic repairs	2017
	Kosova B			
	B1	1983	Capital revitalization (2016)	2030
	B2	1983	Capital revitalization (2017)	2030
Existing HPP	Ujmani			
	U1+U2	1983	Periodic repairs	>2030
	Lumbardhi			
	G1+G2	1983	planning to increase capacity	>2030

Meanwhile the basic scenario of the development of new generation capacity (TPP, HPP and renewable sources) is presented in Table 5.5

Tab 5.5 Base scenario for new generating capacity in the future

NEW GENERATION CAPACITY				
	Units	Install capacity	In operation	Life
New TPPs	TPP new Kosova			
	G1	P=300 MW	Q1 2016	>2050
	G2	P=300 MW	Q1 2017	>2050
	New TPP			
	G3	P=400 MW	Q1 2018	>2060
	HPP Zhuri			
	G1+G2+G3	P=305 MW	Q1 2016	>2060
Renewable Energy Sources	Small HPPs			
	>20 HPPs	P ₂₀₂₀ =140.3	Q1 2010 - Q4 2020	>2050
	Wind turbines			
	> 4 wind farm	P ₂₀₂₀ =141	Q1 2010 - Q4 2020	2020-2040
	Biomass			
		P ₂₀₂₀ =16.5	Q1 2012 - Q4 2020	
	Solar			
		P ₂₀₂₀ =0.8	Q1 2017 - Q4 2020	

Based on tables 5.4 and 5.5:

- (i) Power generation from TPP Kosova A, operating with A3, A4 and A5 units. In line with the European Directive for Large Combustion Plants, the units of TPP Kosova A could be operated until the end of 2017¹.
- (ii) Power generation from TPP Kosova B, operating with B1 and B2 units. It is anticipated that these two units will be rehabilitated during the period 2016 – 2017, including carryout of investments required to meet emission standards required by EU Directive for Large Combustion Plants. These units would continue their commercial operation for up to 15 more years after revitalization, respectively until 2030.

¹ Time of decommissioning of the units of the TPP Kosova A before the end of 2017 will depend from the time of commissioning of the units of TPP New Kosova.



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

- (iii) Power generation from Ujmani Hydro Power Plant (HPP), which with maintenance and rehabilitation could continue its commercial operations for a long-term period.
- (iv) Power generation from the Zhur Hydro Power Plant, expected to be constructed by 2015 and begin its commercial operation in 2016.
- (v) Power generation from new units of TPP 'New Kosova'. Its first generation unit is expected to enter into commercial operation in 2016.
- (vi) During the period 2010-2020, about 20 HPPs will be developed, entering into operation with a total installed capacity of over 140.3 MW. Meanwhile, the existing small hydropower plants will be rehabilitated and brought back to operation.
- (vii) Substantial participation in the production of energy from renewable sources is projected to be from wind generators, where until the end of 2020 it will reach to 141 MW.
- (viii) Until initiation of production in TPP New Kosova, coverage of remaining electricity balance will be met through imports.

Based on the above assumptions, electricity generation from domestic power generation plants for the period 2011-2020 is shown in Table 5.6.

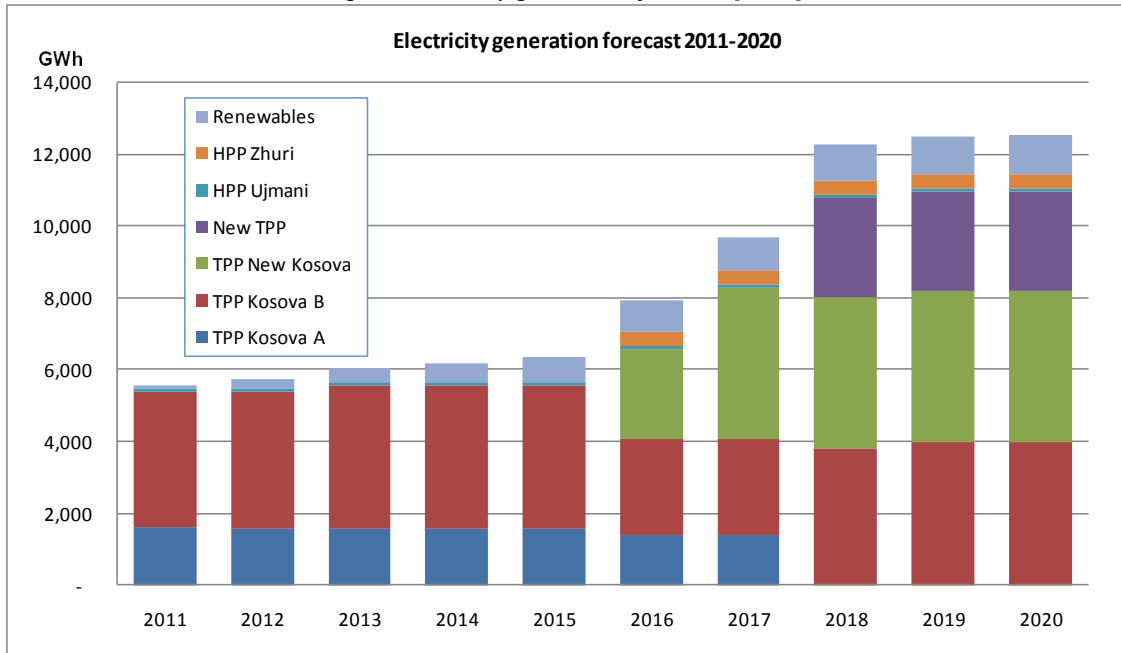
Tab 5.6 Electricity generation forecast [GWh]

Gross electricity consumption - base scenario (GWh) (Ministri of Economic Development) Long term balance	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1 TPP Kosova A	1618	1580	1580	1580	1580	1370	1370	0	0	0
2 TPP Kosova B	3752	1807	3988	3988	3988	2693	2693	3807	3988	3988
3 TPP New Kosova	0	0	0	0	0	2520	4200	4200	4200	4200
4 New TPP	0	0	0	0	0	0	0	2760	2760	2760
5 Total from TPPs (1+2+3+4)	5370	3387	5568	5568	5568	6583	8263	10767	10948	10948
6 HPP Ujmani	82	82	82	82	68	82	82	78	78	78
7 HPP Lumbardhi	26	27	27	26	27	26	27	27	27	27
8 HPP Dikance+Burimi+radavci	14	14	14	14	14	14	14	14	14	14
9 HPP Zhuri	0	0	0	0	0	398	398	398	398	398
10 Small HPPs	16	80	156	248	351	443	506	560	614	655
11 Total from HPPs (6+7+8+9+10)	138	203	279	370	460	963	1027	1077	1131	1172
12 Biomass power plants (natural waste)	0	12	17	20	23	29	33	36	8	8
13 Biomass power plants (urban waste)	0	5	14	23	31	40	49	58	66	75
14 Wind farm	69	108	151	199	252	309	309	309	309	309
15 Solar power plants	0	0	0	0	0	0	2	2	2	2
16 Total Biomass, Wind, Solar (12+13+14+15)	69	125	182	241	307	378	392	405	385	394
Total renewables	125	247	379	529	700	861	939	1006	1041	1091
Total Gross Generation	5577	3715	6029	6180	6334	7924	9683	12249	12464	12514

Electricity generation forecast is also presented graphically in Figure 5.2.



Fig 5.2 Electricity generation forecast [GWh]



5.3 The balance of production and consumption for the period 2011 - 2020

The balance of the electricity in the next ten years is based on the development of the demand forecasted and development of generating capacity and needs for electricity import or export. Practical realization of imports and exports of electricity depends on the development of local and regional market of electricity. The Figure 4.3 shows the balance of power 2011-2020 defined by the difference between production (base scenario) and demand (base scenario)

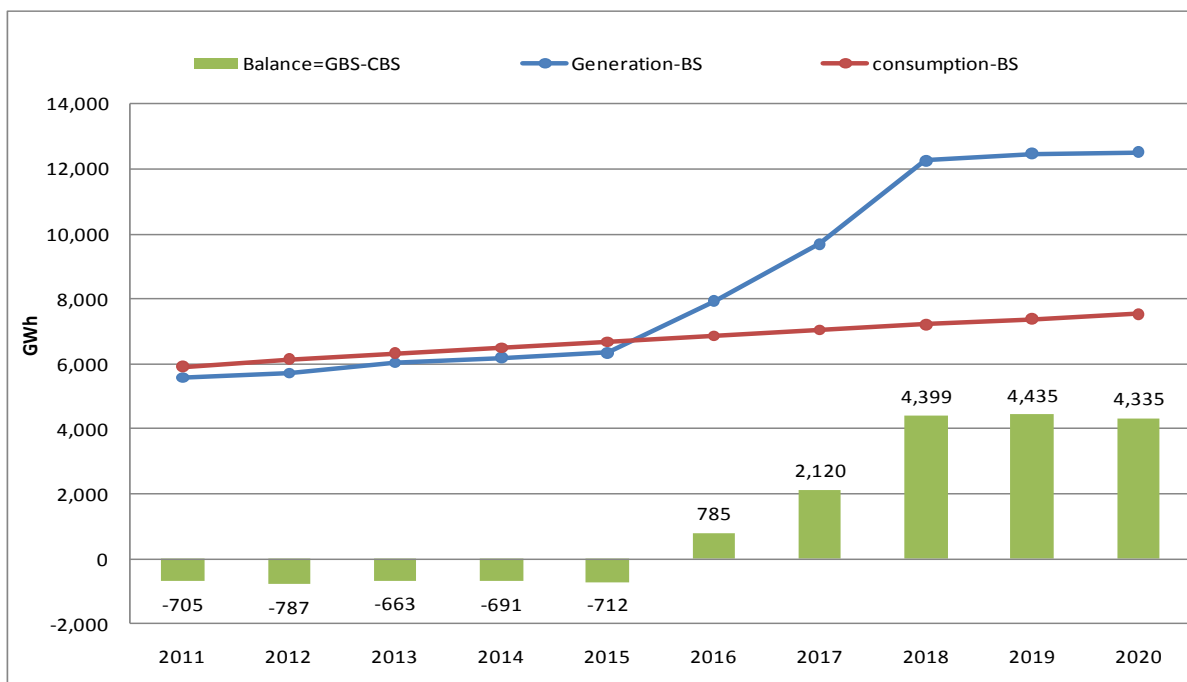


Fig. 5.3 Balance of electricity production and demand in the future (2011-2020)



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

Negative value indicates energy deficit of electricity (needs imports), while the positive value indicates surplus of electricity (export options).



6 LIGNITE RESOURCES IN KOSOVO MINES

Lignite reserves in Kosovo are located in two large basins called ‘Kosova’ and ‘Dukagjini’. Geological lignite reserves are assessed to amount to 12.5 billion tons (including all categories of reserves). Table 6 presents a summary on lignite reserves by location.

Kosovo’s lignite has low sulphur content and relatively good concentration of lime (calcium oxide) for absorbing sulphur during the combustion process. The ratio between lignite and overburden is pretty favourable, a fact this that makes economically attractive the open cast mining of lignite.

Tab 6.1 Lignite reserves by location

Basin	Surface	Reserves [Million Ton]			
	[km ²]	Explored		Exploitable	
		t	t _{ce}	t	t _{ce}
Kosova	274	10,091	2,957	8,772	2,521
Dukagjini	49	2,244.80	782	2,047.70	464
Other	5.1	106,6	22	73.2	19
Total		12,442.40	3,761	10,892.90	3,004

Lignite supplies about 97% of the total production of electricity in Kosovo. Two mines, Bardhi and Mirashi, supply lignite to the thermal power plants Kosova A and Kosova B.

The Project for South-western Sibovc (new mine) has become operational with some delay. However, the exploitation of lignite began in 2010, resulting with 360 thousand tons of lignite being extracted.

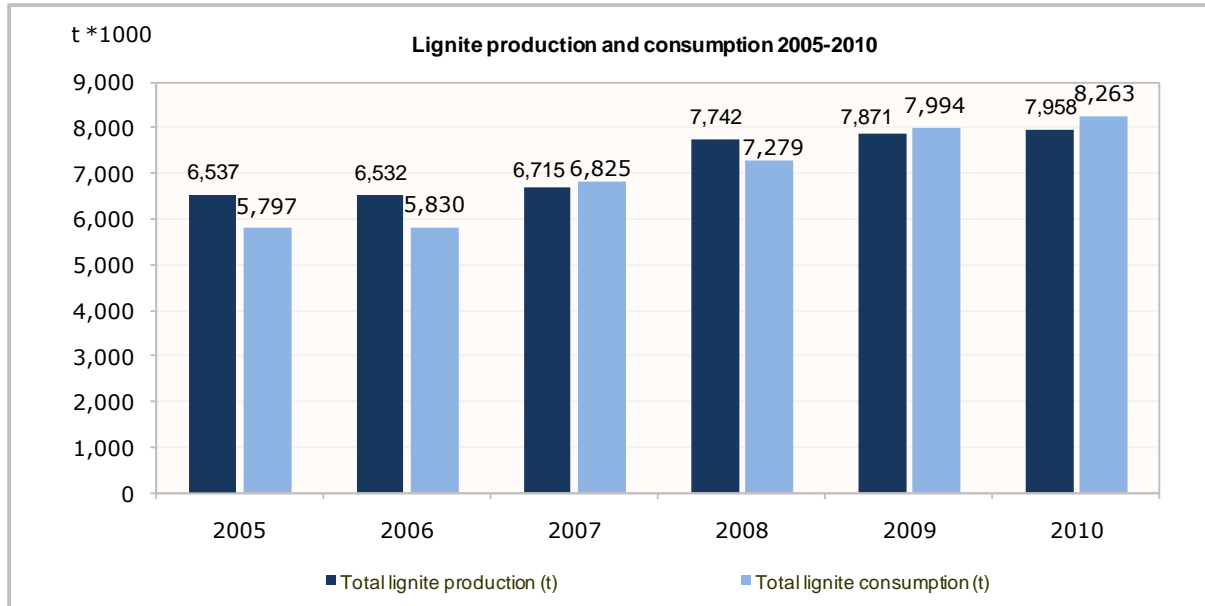


Fig.6.1 Production and consumption of lignite in 2008-2010

(Total coal consumption, includes also consumption on the market)

Preventing a possible energy collapse as a result of delays in the development of the “New Mine” is a top priority for the Government. Initial investments during the period 2008-09, amounting to €145 million, have been covered by the Kosovo Budget. The Government, within the Mid-Term Expenditure Framework (MTEF), has allocated a credit of €75 million soft loan in 2008 and has



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

allocated €70 for 2009 for KEK JSC to fund the rehabilitation and/or purchase of new equipment (bucket-wheel excavators and related conveyors) for the “New Mine”. EC and KfW together have funded €26.2 million for the rehabilitation of two bucket-wheel excavators for overburden removal. BKK has participated in this project with €15 million.

By the time when TPP “New Kosova” enters into operation with a capacity of approximately 300 MW in the first phase, expansion of the mine in its southwest may be necessary. The total exploitable amount of lignite in the “New Mine” is assessed at 830 Million tons, which will suffice to supply lignite to TPP Kosova A, TPP Kosova B, and TPP New Kosova with up to the capacity of 600 MW during the next 40 years.



7 NATURAL GAS SECTOR

7.1 General description

Kosovo is not linked to operational natural gas supply networks. A connection to natural gas supply would be an important option to diversify fuel supply in the country and to increase security of supply, but there are actually no projects planned.

Gas supply and consumption in Kosovo is therefore limited to bottled LPG (liquefied petroleum gas).

7.2 Currently available production and import capacity

There is no production of gas in Kosovo, nor import capacity by pipelines.

7.3 Forthcoming production and import investment for the next three years

Authorized - There are actually no authorized investment projects, nor expectation of such projects in the next three years.

Actually in process of construction - There are no projects under construction.

7.4 Description of the role of regulatory or other authorities

Law 03L-185 “on Energy Regulator” established a strong, fully-independent Regulator (Energy Regulatory Office - ERO), completely autonomous from any Governmental Department to exercise economic regulation in the energy sector (Electricity, District Heating and Natural Gas) and defined its executive powers, duties and functions, primarily amongst which are:

- the conditions and criteria for issuing licenses to carry out energy activities,
- the procedures for granting permits for the construction of new generating and transmission capacity,
- the criteria for regulating network and public supply prices and approving tariffs,
- the conditions of energy supply,
- monitoring the effective unbundling and development of competition in the energy sector, and
- customer protection, etc.

The establishment of ERO falls within the wider framework of energy policy harmonization in South Eastern Europe. On behalf of Kosovo, UNMIK signed Energy Community of South East Europe (ECSEE).

Requirements relating to supplier of last resort -There are no special requirements.

Incentives to increase production/import capacity or any type - There are no incentives in place.

Requirements relating to the availability of storage for public service reasons - There are no such requirements.



7.5 Progress in major infrastructure projects

Important interconnection projects between or within Member States -Currently there are no natural gas network interconnection projects for Kosovo in preparation.

Regulatory framework under which they will operate -The Law on Natural Gas has been adopted. It is in compliance with the Directive 2003/55/EC. MEM has developed secondary legislation as required by this Law.

7.6 Generally Applicable Standards

Kosovo has submitted to the EnCT Secretariat its Plan for the Adoption of Generally Applicable Standards for the power and gas sectors. This Plan includes 186 standards for the power sector and 82 for the gas sector.

For the power sector, a total of 96 standards have been adopted as Kosovo standards until now. The remaining 90 are in the process of adoption. By the end of 2010, all 186 standards will be adopted as Kosovo standards.

For the gas sector, a total of 75 standards are adopted as Kosovo standards until now. The remaining 7 are in the process of adoption. By the end of 2010, all 82 standards will be adopted as Kosovo standards.



8 OIL SECTOR

8.1 Import and consumption of crude oil and petroleum products

All oil products that are imported in Kosovo are consumed within the country. The total amount of oil products that are imported in 2010 is similar to year 2009, 566 and 586 thousand tons respectively, where few products had some increase and others some decrease.

Figure 8.1 from below shows the amount of imported oil products that were declared in customs data for excise, customs, or VAT duties during 2010 and 2009 and the percent change over these two years.

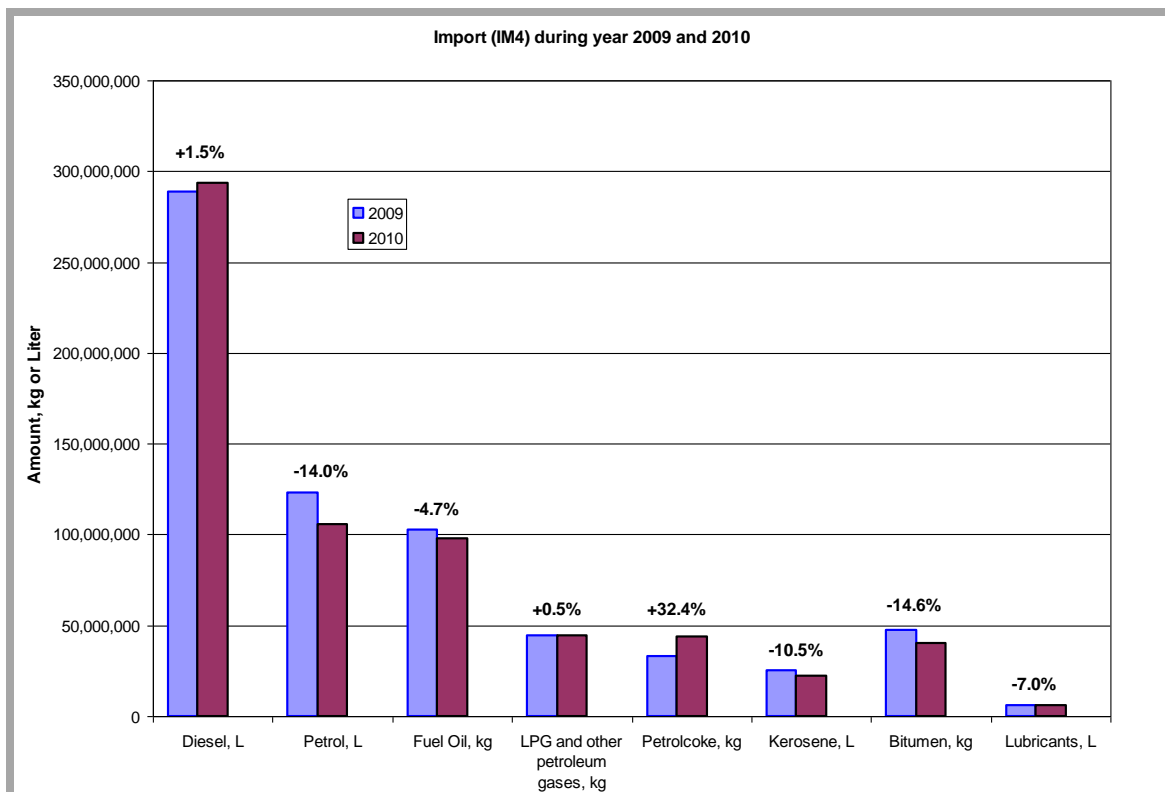


Figure 8.1: Imports of oil products in Kosovo during 2009 and 2010

In the first half of 2011 there has been an increase of import for diesel and slight decrease for gasoline compared with first half of year 2010.

Over 60 percent of oil products in Kosovo come from the refinery of OKTA located in Skopje, FYROM. From there mostly diesel, petrol, kerosene, and residual fuel oil (mazut) are imported. In recent year there has been an increase of import of diesel and petrol from Albania through their ports. Illegal imports of oil products from Serbia through the border points 1 and 31 have caused problems in the market in many ways. Their prices are low since the excise and VAT duties are not paid and quality is questionable. As a proof for low quality is a report of quality of diesel test samples taken by EULEX in fuel stations in north of Mitrovica city. The sulfur concentration was above 1200 ppm, water over 1000 ppm, distillation of only 30% at 390 °C, and many other parameters over the allowed limit.



8.2 Domestic supply of crude oil and petroleum products

Kosovo has no production of crude oil. There is only a small oil processing plant with capacity less than 100,000 tons per year that uses gasoil and some lighter distillates as raw material and produces diesel, residual fuel oil, and LPG. In year 2010 it provided less than 4 percent of total oil product import. The plant has storage capacity of 2000 tons for raw material, 4000 tons for eurodiesel, 440 tons for fuel oil, and 95 tons for LPG.

8.3 Stockholding of crude oil and petroleum products

Office for Licensing, regulating, and monitoring oil sector is the most competent body for oil sector in Kosovo. The Office operates within the Ministry of Trade and Industry authorized by Law nr 03/L 138 for Licensing, Regulating and Monitoring the oil sector in Kosovo since 01-January-2010. The Office responds directly to the Minister of Trade and Industry.

Currently, Kosovo holds emergency oil stocks according to Law 2004/5 which was amended with Law 03/L-138. According to this law:

All petroleum and petroleum product storage and sale points are obligated at any time to possess the reserves from at least 5 % of their storage capacity for state emergency purpose. In case of market disorganization, the Minister through special legal acts can determine the highest percentage for emergency reserves.

Table 8.1 below shows the total capacity (in m3) of oil products and the calculated amount (volume) meant for reserves.

Table 8.1: Volume of current oil storages including the retail fuel stations

	Diesel & Petrol, m3	Fuel oil, m3	LPG, m3	Kerosene, m3	Total, m3	5% of total capacity (Emergency Reserves), m3
Storages	82,000	15,000	5,500	300	102,800	5,140
Retail capacity	50,000		1,000		51,000	2,500
				Total capacity, Storages and Retail, m3	153,800	7,640

The graph below shows net import of oil products, the storage capacity (in tons), the amount of reserves, the calculated obligations according to directive 2009/119/EC and the forecast of obligations' amount for 2011.



Statement of Security of Supply for Kosovo (Electricity, Natural Gas and Oil) – July 2011

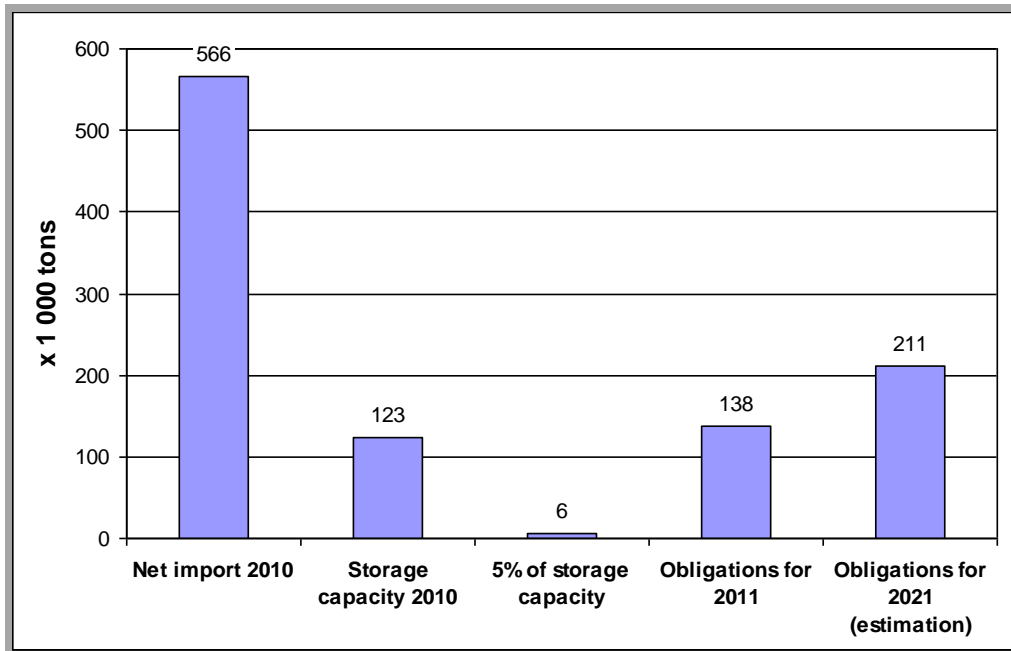


Figure 8.2: Oil storage capacity and the reserves compared to net import and the obligations according to directive 2009/119/EC

As can be seen from the figure 8.2, to reach the requirements of the directive Kosovo needs to build a significant amount of storage. Table 8.2 shows the proposed roadmap from Energy Community for Kosovo to meet the obligations by the end of 2020.

Table 8.2: Kosovo’s roadmap for achieving emergency oil stocks

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Task										
Legal										
Develop regulatory framework/laws		█								
Enact relevant laws and regulations			█							
Organisational and Management										
Develop strategy and organisation for managing stocks		█								
Set up Central Stockholding Entity (as required)		█								
Develop stockholding obligations for operating companies (if required)		█								
Development of Emergency Response Planning			█							
Development of Inventory monitoring and reporting system			█							
Engineering										
Secure Engineering Budget		█								
Assess and design additional tank capacity		█								
Engineering design for additional tank capacity			█							
Tender for storage construction				█						
Build required additional tank capacity				█	█					
Stockbuilding										
Arrange financing for purchasing of emergency stocks					█					
Build-up emergency stocks					█	█	█	█	█	█
Report compliance progress to the Energy Community	█	█	█	█	█	█	█	█	█	█

Office for licensing, regulating, and monitoring oil sector is in the process of drafting new law on oil sector with the goal to finalize it by the end of 2011. To help with drafting legislation Kosovo European Commission has assisted with hiring an expert. The expert will be coming several times during the year and he will help to draft the law, the respective administrative instructions, and also the Strategy for creating and maintaining emergency oil stocks according to the directive 2009/119/EC. His first visit was on July, 2011.



In addition, the Administrative Instruction 2008/21 on Quality of Oil Products will be replaced with a new one in the third quarter of 2011. Currently diesel and petrol are limited to the sulfur content of up to 50 ppm, heating oil to 2%, and gasoil to 0.2%. With this new coming administrative instruction, starting from 1-January-2011, the diesel and petrol fuels will be limited only to 10 ppm, heating oils to 1%, and gasoil to 0.1% sulfur content. With this Kosovo will meet the obligations of directive 1999/32/EC.

8.4 Presence of Biofuels in oil market as an alternative

According to current legislation in force the use of biofuels is not mandated. There is only a draft administrative instruction. With the help of the expert from TAEX the draft will be reviewed and modified. In addition it has to be analyzed if this can be applicable for Kosovo, even for lower amounts, accounting for lack of state budget for subsidizing farmers, other government priorities, issues with controlling the mandated use of biofuels, storage issues, etc. The presence of biofuels in market will have to go along with countries in the region and there will not be lack of effort from competent bodies to work in solving the issues.

8.5 Oil infrastructure

Kosovo does not possess a pipeline for crude oil nor for oil products. Oil products are imported about 80% by trucks and about 20% by rail. Kosovo has railroad connections with FYROM, Serbia.