

Republika e Kosovës Republika Kosova - Republic of Kosovo *Qeveria - Vlada - Government* Ministria e Zhvillimit Ekonomik Ministarstvo Ekonomskog Razvoja - Ministry of Economic Development

BALANCA VJETORE E ENERGJISË E REPUBLIKËS SË KOSOVËS PËR VITIN 2012

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ANNUAL ENERGY BALANCE OF REPUBLIC OF KOSOVO FOR THE YEAR 2012

Prishtinë, 2013



Republika e Kosovës

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Prishtina, 2013

This document was prepared by the Energy Balance Division in MED, with the support and in close cooperation with the entities outlined in the Administrative Instruction No. 07/2011 on Energy Balance Rules.

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Abbreviations

KOSTT J.S.C.Kosovo Transmission, System and Market OperatorKEK J.S.C.Kosovo Energy CorporationKSAKosovo Statistics AgencyEROEnergy Regulatory OfficeMAFRDMinistry of Agriculture, Forestry and Rural DevelopmentKFAKosovo Forest AgencyMESPMinistry of Environment and Spatial PlanningKCKosovo CustomsEnCEnergy CommunityREKOS2011 Census of Population, Households and Residences in KosovoEUROSTATEuropean Community Statistics OfficeCRESCenter for renewable energy and saving, Athens, GreeceIEAInternational Energy AgencyLPGLiquefied Petroleum GasTPPThermal Power PlantHPPHydro Power PlantGWhGiga WattMWhMega Watt/HourMWMega WattRESRenewable Energy SourcesGDPGross Domestic ProductCOCarbon monoxideVOCVolatile organic compoundNOxNitrogen oxides - NO and NO2CO2Sulfur dioxideKoeKilo ton oil equivalent	MED	Ministry of Economic Development
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REKOS2011 Census of Population, Households and Residences in KosovoEUROSTATEuropean Community Statistics OfficeCRESCenter for renewable energy and saving, Athens, GreeceIEAInternational Energy AgencyLPGLiquefied Petroleum GasTPPThermal Power PlantHPPHydro Power PlantGWhGiga Watt/HourGWGiga Watt/HourMWhMega WattRESRenewable Energy SourcesGDPGross Domestic ProductCOCarbon monoxideVOCVolatile organic compoundNO _X Nitrogen oxides - NO and NO2CO2Sulfur dioxideSO2Kilo ton oil equivalent	EnC	Energy Community
EUROSTATEuropean Community Statistics OfficeCRESCenter for renewable energy and saving, Athens, GreeceIEAInternational Energy AgencyLPGLiquefied Petroleum GasTPPThermal Power PlantHPPHydro Power PlantGWhGiga Watt/HourGWhMega WattMWhMega Watt/HourMWhMega WattRESRenewable Energy SourcesGDPGross Domestic ProductCOCarbon monoxideVOCVolatile organic compoundNOxNitrogen oxides - NO and NO2CO2Sulfur dioxideSO2Sulfur dioxideKtoeKilo ton oil equivalent	REKOS	2011 Census of Population, Households and Residences in Kosovo
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IEAInternational Energy AgencyLPGLiquefied Petroleum GasTPPThermal Power PlantHPPHydro Power PlantGWhGiga Watt/HourGWGiga WattMWhMega Watt/HourMWhMega Watt/HourRESRenewable Energy SourcesGDPGross Domestic ProductCOCarbon monoxideVOCVolatile organic compoundNOxNitrogen oxides - NO and NO2CO2Sulfur dioxideSO2Sulfur dioxideKtoeKilo ton oil equivalent	CRES	Center for renewable energy and saving, Athens, Greece
LPGLiquefied Petroleum GasTPPThermal Power PlantHPPHydro Power PlantGWhGiga Watt/HourGWGiga WattMWhMega Watt/HourMWMega Watt/HourMWMega WattRESRenewable Energy SourcesGDPGross Domestic ProductCOCarbon monoxideVOCVolatile organic compoundNOxNitrogen oxides - NO and NO2CO2Carbon dioxideSO2Sulfur dioxideKoeKilo ton oil equivalent	IEA	International Energy Agency
TPPThermal Power PlantHPPHydro Power PlantGWhGiga Watt/HourGWGiga Watt/HourMWhMega Watt/HourMWMega Watt/HourMWMega WattRESRenewable Energy SourcesGDPGross Domestic ProductCOCarbon monoxideVOCVolatile organic compoundNOxNitrogen oxides - NO and NO2CO2Carbon dioxideSO2Sulfur dioxideKioeKilo ton oil equivalent	LPG	Liquefied Petroleum Gas
HPPHydro Power PlantGWhGiga Watt/HourGWGiga WattMWhMega Watt/HourMWMega WattRESRenewable Energy SourcesGDPGross Domestic ProductCOCarbon monoxideVOCVolatile organic compoundNOxNitrogen oxides - NO and NO2CO2Carbon dioxideSO2Sulfur dioxideKtoeKilo ton oil equivalent	TPP	Thermal Power Plant
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GDPGross Domestic ProductCOCarbon monoxideVOCVolatile organic compoundNOxNitrogen oxides - NO and NO2CO2Carbon dioxideSO2Sulfur dioxideKtoeKilo ton oil equivalent	RES	Renewable Energy Sources
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VOCVolatile organic compoundNOxNitrogen oxides - NO and NO2CO2Carbon dioxideSO2Sulfur dioxidektoeKilo ton oil equivalent	СО	Carbon monoxide
NOxNitrogen oxides - NO and NO2CO2Carbon dioxideSO2Sulfur dioxidektoeKilo ton oil equivalent	VOC	Volatile organic compound
CO2Carbon dioxideSO2Sulfur dioxidektoeKilo ton oil equivalent	NO _X	Nitrogen oxides - NO and NO ₂
SO2Sulfur dioxidektoeKilo ton oil equivalent	CO_2	Carbon dioxide
ktoe Kilo ton oil equivalent	SO_2	Sulfur dioxide
	ktoe	Kilo ton oil equivalent

Executive summary

The 2012 Annual Energy Balance was prepared by the division responsible for energy balances in the department responsible for energy and mining in the Ministry of Economic Development.

The 2012 Annual Energy Balance in the Republic of Kosovo was compiled in accordance with the requirements set forth in the Law on Energy No. 03/L-184 and the Administrative Instruction No. 07/2011 on Energy Balance rules.

This document depicts energy flows of all types and sources used in Kosovo during 2012.

Data from the following entities was collected:

-Kosovo Agency of Statistics – demographic and social data, data on imports and exports of all fuels;

-Kosovo Energy Corporation (KEK J.S.C) – data on coal (production, supply and stock), and data on electricity consumption;

-Kosovo Transmission, System and Market Operator (KOSTT J.S.C.) – periodic monthly and annual data on electricity balance;

-Kosova Coal J.S.C. - data on wet and dry coal extracted from Kosovo's open cast mines;

-District heating companies – data on energy flows in district heating companies;

-MAFRD and KFA - data on logwood;

-MTI – processed data on petroleum products.

In this document, the analysis of energy consumption is based on surveys and studies conducted. Extrapolation of such data was based on relevant development indicators, such as demographic, social and economic indicators.

Data was collected and processed, systemized and presented in line with the EUROSTAT format.

1. Annual Energy Balance in 2012

Key sections of the realized balance cover primary sources, including generation, production, exploitation, import, export and stock, and consumption of such energy products. These two sections will be analyzed below.

1.1. Primary energy source

The structure of primary energy consumed in Kosovo in 2012 does not differ to that of 2011. It comprises coal, petroleum products (gasoline, diesel, heavy oil, kerosene and liquid petroleum gas – LPG), biomass, electricity, hydro-energy, wind energy, solar energy and biofuel. Electricity is only treated from the export and import perspective. This approach is based on the EUROSTAT methodology.

As noted in Table 1, the overall (gross) amount of energy available for utilization (consumption) in 2012 was 2358.24 ktoe. In comparison to 2011, there was a decrease of 5.9%.

Energy sources	2011	2012
Coal	1623.49	1528.10
Petroleum products	591.56	560.65
Biomass	241.93	247.49
Electricity	38.27	13.09
Hydro energy	9.00	8.22
Solar energy	0.63	0.69
Wind energy	0.02	0.00
Biofuel	0.13	0.00
Total	2505.03	2358.24

Table 1. Overview of the amount of energy available by primary energy source (product) (ktoe)

As made clear by Table 1, the amount of available coal has significantly decreased in comparison to 2011. Also, the amount of available petroleum products has decreased in comparison to 2011. This is explained by the fact that coal production has diminished in comparison to last year, but this had no effect in electricity generation due to sufficient reserves in the coal storage facilities. Similarly, the diminishment the amount of petroleum products available is explained with the fact that industry sector demand has decreased, with the lower demand for this product for thermal power plant transformation purposes, and diminished demand in the household sector, due milder weather in October and November.

Data on the amount of available logwood (biomass) energy for 2012 is based on the results of the biomass study commissioned by the Energy Community and implemented by CRES, extrapolated based on the increase of the number of households and GDPs for 2012. This is based on the fact that logwood is mostly utilized for heating purposes in the household sector, hence, the increase of the number of households also increases the space to be heated.



Figure 1. Proportion of available primary sources (%)

1.1.1. Coal

The amount of coal available in 2012 was 1528.10 ktoe. Table 2 presents data on the amount of energy available from coal.

Table 2. Overview of the amount of coal available as a primary source (ktoe)

Coal	2011	2012
Anthracite	30.12	23.05
Bitumen coal and other coal	0.00	15.77
Coal stones for coke	0.00	0.00
Lignite/brown coal	1593.43	1488.46
Coke and semi-coke	-0.63^{1}	0.42
Coal gas, water gas, etc.	0.00	0.00
Terpentine coke from tar	0.00	0.00
Brown coal pellet	0.28	0.00
Tar	-0.06	0.00
Peat	0.34	0.40
Total coal	1623.49	1528.10



Figure 2. Overview of the amount of coal as an available primary source (ktoe)

¹ Minus sign indicates that export is higher than import. Data provided by the Kosovo Customs. Ministry of Economic Development

Figure 2 shows that lignite was the predominant product, taking 97.41% of the total coal available as a primary source, followed by anthracite with 1.51%, bitumen coal with 1.03% and peat and coke and semi-coke with 0.03%. Kosovo possesses only lignite reserves, while other coal types are not available. The demand for other types of coal is met through imports.

1.1.2. Petroleum products

Kosovo doesn't have petroleum extraction or gross unprocessed petroleum refinement capacities. All petroleum product demand is covered through import. Import of petroleum products for 2012 reached 560.65 ktoe. In comparison to 2011, there was a decrease of 5.2%, which is related to the economic crises and somewhat to the increase of prices, which consequently diminished market demand. Table 3 presents data on amounts of energy available from petroleum products.

	1 1	(
Petroleum products	2011	2012
Gasoline	78.65	71.51
Gasoil	6.90	0.00
Kerosene	1.63	0.00
Aviation kerosene (Jet fuel)	11.93	14.29
Petroleum oil/heavy duty oil	74.57	46.58
Diesel	283.78	307.84
LPG	40.97	37.53
Petroleum coke	43.07	43.68
Other petroleum products	0.00	0.00
Petroleum remains	0.00	5.22
Bitumen	50.07	34.00
Total	591.56	560.65

Table 3. Overview of the amount of petroleum products (ktoe)



Figure 3. Proportion of petroleum products as available primary energy sources (%)

Figure 3 shows that in 2012 the most used petroleum product was diesel. Diesel takes 54.91% of the overall amount of available petroleum products followed by gasoline with 12.75%, heavy oil 8.31%, bitumen 6.06%, diesel coke 7.79%, LPG 6.69%, etc. noteworthy,

this year there was no available gasoil, explained by the fact the micro-refineries that used this product as an input for the previous years have not operated in 2012.

1.1.3. Biomass (Firewood)

The amount of firewood consumed during 2012 is assumed to be 247,49 ktoe. In comparison to 2011, there is an increase of 2.3%, which corresponds with the increased number of households.

Basic data on logwood consumption were taken from the study on biomass consumption "Study on biomass consumption for energy purposes in the Energy Community", commissioned by the Energy Community and implemented by CRES.

1.1.4. Electricity

Based on the EUROSTAT methodology on presentation of energy balances, electricity is treated as primary energy only in consideration of the imported and exported energy amounts. Net import of such energy for 2012 was 13.09 ktoe (import-export).

1.1.5. Hydro energy

Data on hydro energy is provided by KEK and KOSTT. Based on the amount of electricity produced in hydro power plants HPP Ujmani, SHPP Lumbardhi, SHPP Radavci, SHPP Dikanci and SHPP Burimi. The amount of hydro energy produced in hydro power plants during 2012 was 8.22 ktoe.

1.1.6. Wind energy

In 2012 no wind-powered electricity was produced.

1.1.7. Solar energy

Data on solar energy were estimated based on the trend of developments of last three years.

1.1.8. Biofuels In 2012, no biofuel imports were noted.

1.2. Final energy consumption

Data on energy consumed during 2012^2 is based on research and surveys conducted in all economic sectors. Such research was conducted during last four years (2009, 2010, 2011 and 2012), while estimates are based on the trend analysis of the last three years, in conjunction with adequate indicators that have direct impact on consumptions, such as economic, demographic and other indicators. These analyses are also based on the bottom-up assessment methodology, when addressing the diminishment of amounts of energy available. Data on biomass consumption is taken from the results of the survey on biomass consumption in the household, services and industry sectors, in a project commissioned by the European Community in 2011, while the 2012 consumption was extrapolated for the increased number of households (by 2%) and GDP (2.4%).³.

² "Energy consumption in Kosovo," compiled by Riinvest Institute in 2009, "Study on distribution of energy consumption in the industry sector and possibilities for improving efficiency," compiled by MPR GROUP in 2010, "Study on distribution of energy consumption in the household sector and possibilities for improving efficiency," compiled by Intech Institute in 2011, "Study on distribution of energy consumption in the services sector," compiled by Projection Studiu 'Links 4' in 2012, "Study on biomass consumption for energy purposes in the Energy Community," prepared by CRES in 2011.

³ Ministry of Economic Development.

Table 4 presents energy consumption by sectors.

Economic sector	2011	2012
Industry sector	315.64	272.98
Household sector	490.51	473.73
Services sector	119.57	117.09
Agricultural sector	19.95	19.85
Transport sector	338.58	342.65
Total	1284.25	1226.30

Table 4. Overview of the proportion of all sectors in the final energy consumption (ktoe)

Table 4 presents final energy consumption for 2012, which amounted to 1226.30 ktoe, thus marking a decrease by 4.5% in comparison to 2011. The sector with the highest energy consumption in 2012 is the household sector, which spent 473.73, or 38.6% of the overall consumption. The second sector is the transport sector, with an overall amount of 342.65 ktoe, or 27.9% of the total consumption. Industry sector consumed 272.98 ktoe of energy, or 22.3%. The amount of energy consumed by the services sector is 117.09 ktoe, or 9.5%. The sector that consumed least energy was agricultural sector with 19.85 ktoe, or 1.6% of the overall consumption.



Figure 4. Proportion of economic sectors' consumption of energy (%)

Energy consumption for non-energy purposes in 2012 was 39.62 ktoe. Peat is the only type of coal consumed for non-energy purposes in the chemical industry, totaling 0.40 ktoe. Petroleum sub-products of bitumen and lubricant oil were also used for non-energy purposes in 2012 (39.22 ktoe). Below is the final energy consumption for non-energy purposes. In comparison to 2011, there is a significant decrease of energy consumption for non-energy purposes.

Economic sector	2011	2012
Chemical industry	0.34	0.40
Other sectors	50.07	39.22
Total	50.41	39.62

 Table 5. Final consumption for non-energy purposes (ktoe)

Table 6 presents the state and amounts of final energy consumption by energy product type.

Source	2011	2012
Coal	86.99	68.58
Petroleum products	605.14	561.18
Biomass	241.93	247.50
Biofuels	0.13	0.00
Electricity	396.80	384.54
Solar energy	0.63	0.69
Gained heating	3.04	3.44
Total	1334.66	1265.92

Table 6. Overview of final consumption of all energy sources (ktoe)



Figure 5. Proportion of all energy sources in the overall consumption (%)

The most used energy source in 2012 were petroleum products, with 561.18 ktoe or 44.33% of the total consumption of energy products. Electricity ranks second most consumed energy product, with 384.54 ktoe or 30.38% of the total consumption. Biomass (mostly firewood) consumption reached 247.50 ktoe, making for 19.55% of the overall consumption. Coal covered 68.58 ktoe or 5.42% of the overall consumption. Derived heating amounted to 3.44 ktoe or 0.27% of the total energy consumed. Solar energy is estimated to only comprise 0.69 ktoe or 0.05% of the total consumption of energy sources.

1.2.1. Final coal consumption

Final consumption of coal types is presented in the following table:

Tuble 7. Overview of the final coal consumption (kide)		
Coal	2011	2012
Anthracite	30.12	23.05
Bitumen and other Coal	0.00	15.77
Coke coal	0.00	0.00
Brown Lignite/Coal	56.25	28.94
Coke and semi-coke	0.00	0.42
Coal gas, gas, etc.	0.00	0.00
Turpentine coke from soot	0.00	0.00
Brown coal briquette	0.28	0.00
Soot	0.00	0.00
Peat	0.34	0.40
Total	86.99	68.58

Table 7 Overview of the final coal consumption (ktop)



Figure 6. Overview of coal consumption (%)

Table 7 and Figure 6 show that lignite is the type of coal consumed most in 2012, covering 28.94 ktoe or 42.2% of overall consumption. The amount of anthracite consumed is 23.05 ktoe or 33.6%. Coke and semi-coke are consumed at the amount of 0.42 ktoe, or 0.6% of the overall consumption. Peat reaches the amount of 0.40 ktoe, or 0.6%, but this amount was used for non-energy purposes.

1.2.2. Final consumption of petroleum products

Below is the final consumption of all petroleum products:

Tuble 6. Over view of the final consumption	i oj peli oleum p	mounces (moe)
Petroleum products	2011	2012
Gasoline	78.65	71.51
Gasoil	0.00	0.00
Kerosene	0.00	0.00
Kerosene (Jet fuel)	11.93	14.29
Heavy oil/heavy duty oil	66.20	36.32
Diesel	303.96	311.73
LPG	51.27	44.44
Petroleum coke	43.07	43.68
Other petroleum products	0.00	0.00
Petroleum residues	0	0
Bitumen	50.07	34.00
Total	605.14	555.96

 Table 8. Overview of the final consumption of petroleum products (ktoe)



Figure 7. Overview of petroleum product consumption (%)

As depicted in Table 8, diesel is the most consumed sub-product in 2012, amounting to 311.73 ktoe or 56.1% of the of the overall petroleum product consumption, followed by gasoline with 71.51 ktoe, or 12.9%, LPG with 44.44 ktoe, or 8.0%, heavy oil with 36.34 ktoe or 6.5%, bitumen with 34.00 ktoe or 6.1%, however the amount of bitumen is used for non-energy purposes (see Table 7), petroleum coke with 43.68 ktoe or 7.9%, and kerosene (jet fuel) with 14.29 ktoe or 2.6% of the overall consumption of petroleum products.

1.2.3 Final electricity consumption

In 2012, electricity consumption reached 384.54 ktoe, marking a decrease of 3.1% in comparison to 2011. The following table represent electricity consumption by all economic sectors.

Tuble 5. Over view of electricity consumption (moc)		
Sector	2011	2012
Industry	111.36	107.92
Transport	0.00	0.00
Households	216.85	210.15
Agriculture	6.87	6.66
Services	61.72	59.81
Total	396.80	384.54

 Table 9. Overview of electricity consumption (ktoe)



Image 8. Portion of electricity consumption by economic sectors (%)

As presented in Table 9, household sector is the sector with the highest electricity consumption, with 210.15 ktoe, or 54.7% of the overall electricity consumption. The second highest electricity consumer is the industry sector wit 107.92 ktoe, or 28.1% of the overall electricity used, followed by the services sector 59.81 ktoe or 15.6% and the agricultural sector with 6.66 ktoe or 1.7% of the overall electricity consumption.

1.2.4. Final consumption of gained heat

Final consumption of gained heat in 2012 was 3.44 ktoe, marking an increase of 13.3% compared to 2011. The household sector is the sector with the highest consumption, accounting for 2.24 ktoe or 65% of the overall consumption of gained heat, followed by the services sector, which consumes 1.21 ktoe or 35%.

Sector	2011	2012
Industry	0.00	0.00
Transport	0.00	0.00
Households	1.98	2.24
Agriculture	0.00	0.00
Services	1.06	1.21
Total	3.04	3.44

Table 10. Overview of the consumption of gained heat by all economic sectors, in ktoe

1.3. Energy consumption in the industry sector

1.3.1. Consumption of energy sources in the industry sector

Energy consumption (consumption of all energy products), in the industry sector in 2012 amounted to 272.98 ktoe, marking a decrease of 13.5% in comparison to 2011.

Table 11. Ove	erview of th	he consum	ption of all	energy	sources	in the	industry	sector	(ktoe)
	-					20	10		

Energy product	2011	2012
Coal	59.14	49.36
Petroleum products	134.12	104.41
Biomass	11.01	11.28
Electricity	111.36	107.92
Total	315.64	272.98

The product consumed most by the industry sector is electricity, with 107.92 ktoe, or 39.5%, followed by the petroleum products with 104.41 ktoe or 38.3%, coal with 49.39 ktoe or 18.1% and biomass with 11.28 ktoe or 4.1% of the overall consumption of energy by the industry sector.



Figure 9. Overview of the consumption of all energy sources by the industry sector (%)

1.3.2. Coal consumption in the industry sector

Table 12 represents an overview of the consumption of all coal types in the industry sector. In 2012, in the overall coal consumption anthracite participated with 23.05 ktoe or 46.7%, bitumen coal with 15.65 ktoe or 31.7% and lignite with 10.25 ktoe or 20.8% and coke and semi-coke with 0.42 ktoe or 0.9%.

The following table represents consumption of each type of coal by the industry sector.

	~	/
Coal	2011	2012
Anthracite	30.12	23.05
Bitumen and other Coal	0.00	15.65
Coke coal	0.00	0.00
Lignite	29.02	10.25
Coke and semi-coke	0.00	0.42
Coal gas, gas, etc.	0.00	0.00
Turpentine coke from soot	0.00	0.00
Brown coal briquette	0.00	0.00
Soot	0.00	0.00
Peat	0.00	0.00
Total	59.14	49.36

Table 12. Overview of the consumption of all coal types by the industry sector (ktoe)





1.3.3. Consumption of petroleum products in the industry sector

Table 13 presents consumption of petroleum products in the industry sector in 2012, lead by petroleum coke with 41.8%, followed by diesel with 24.1%, heavy oil with 23.9%, LPG with 9.6% and gasoline with 0.5% of the total amount of petroleum products consumed by the industry sector.

ter tien of the consumption of perioter	in products in th	ie industry see
Petroleum products	2011	2012
Gasoline	0.61	0.55
Gasoil	0.00	0.00
Kerosene	0.00	0.00
Kerosene (Jet fuel)	0.00	0.00
Petroleum oil/heavy duty oil	52.96	25.00
Diesel	24.74	25.11
LPG	12.75	10.07
Petroleum coke	43.07	43.68
Other petroleum products	0.00	0.00
Petroleum residues	0.00	0.00
Bitumen	0.00	0.00
Total	134.12	104.41

Table 13. Overview of the consumption of petroleum products in the industry sector (ktoe)



Figure 11. Petroleum products consumed by the industry sector (%)

The industry sector comprises the following industrial branches: steel and iron industry, nonferric metal industry, chemical industry, glass, ceramics and construction material industry, ore extraction industry, food, beverages and tobacco industry, textile, clothes and leather industry, paper and printing industry, engineering and other non-metallic industries.

1.3.4 Electricity consumption in the industry sector

Total consumption of electricity in the industry sector for 2012 was 107.92 ktoe. The iron and steel industry represent the branch with the highest electricity consumption with 43.93 ktoe, or 40.7% of the overall electricity consumption by the industry sector, followed by food, beverages and tobacco industry with 41.66 ktoe or 37.4%, other industries with 15.24 ktoe or 14.1%, glass, ceramics and construction material industry with 5.28 ktoe or 4.9% and non-ferric metal industry with 1.39 ktoe or 1.3%.

Tuble 14. Overview of electricity consumption in the maustry sector (kide)				
Industry subsector	2011	2012		
Coal and steel industry	45.33	43.93		
Industry of non-ferric metals	1.44	1.39		
Chemical industry	0.25	0.24		
Glass, ceramic and construction material industries	5.45	5.28		
Ore extraction industry	1.24	1.20		
Food, drink and tobacco industry	41.66	40.37		
Textile, leather and clothes industry	0.09	0.09		
Paper and stamping industry	0.17	0.16		
Engineering and metallic industries	0.01	0.01		
Other industries	15.73	15.24		
Total	111.36	107.92		

Table 14. Overview of electricity consumption in the industry sector (ktoe)



Coal and steel industry

Figure 12. Proportion of electricity consumed by branches of the industry sector (%)

1.3.5 Proportion of industry branches in energy consumption

Iron and steel industry is the branch consuming most energy in the industry sector, with 85.31 ktoe or 31.3% of the overall energy consumption in the industry sector. This industry is followed by the food, beverage and tobacco industry with 58.21 ktoe or 21.3% of the overall energy consumed by the industry sector. Another large energy consuming branch is the glass, ceramics and construction material industry, with 55.64 ktoe or 20.4% of the total energy consumption in the industry sector. Non-ferric metal industry consumed 37.72 ktoe or 13.8%, while other industries have spent 32.02 ktoe or 11.7% of the overall consumption of energy in the industry sector.

	~	
Industry branch	2011	2012
Coal and steel industry	69.03	85.31
Industry of non-ferric metals	64.47	37.72
Chemical industry	1.89	1.56
Glass, ceramic and construction material industries	60.69	55.64

Table 15. Overview of the total energy consumption by industry subsectors (ktoe)

Ore extraction industry	2.70	2.12
Food, drink and tobacco industry	83.80	58.21
Textile, leather and clothes industry	0.17	0.13
Paper and stamping industry	0.26	0.24
Engineering and metallic industries	0.01	0.01
Other industries	32.62	32.02
Total	315.64	272.98



Figure 13. Overview of energy consumption by industry subsectors (%).

1.4. Energy consumption in the household sector

1.4.1. Consumption of all energy products in the household sector

Energy consumed by the household sector is used for heating of spaced, air conditioning, sanitary water heating, cooking, lighting and use of electrical appliances for individual and family needs.

Energy consumption in the household sector in 2012 was 473.73 ktoe, marking a decrease of 3.4% in comparison to 2011. This is affected by lower consumption of electricity, coal and petroleum products in this sector, explained by the fact that meteorological conditions in October and November were relatively mild, thus decreasing the utilization of these energy products for heating purposes.

ew of the consumption of all energy sources in the household				
Source	2011	2012		
Coal	23.32	16.10		
Petroleum products	25.82	17.79		
Biomass	222.36	227.25		
Electricity	216.85	210.15		
Solar energy	0.19	0.21		
Gained heat	1.98	2.24		
Total	490.51	473.73		

Table 16. Overview of the consumption of all energy sources in the household sector (ktoe)



Figure 14. Overview of the consumption of all energy sources by the household sector (%)

The most consumed energy product in the household sector in 2012 was biomass, with 227.25 ktoe or 48.0% of the overall energy consumption in this sector. Biomass is followed by electricity with 210.15 ktoe or 44.4%, petroleum products with 17.79 ktoe or 3.8%, coal-powered energy with 16.10 ktoe or 3.4%. Gained heating figures reached 2.24 or 0.5% of the total energy consumption. The low proportion of gained heating in the overall energy consumption by the household sector is related with:

Collective reductions for heating company consumers, especially by District Heating Company Termokos from Prishtina, as a measure for consumers that have failed to pay for their heating, and

Lack of combustion fuels (heavy duty oil).

1.4.2. Coal consumption in the household sector

Table 17 shows that lignite is the only type of coal consumed by the household sector, reaching 16.10 ktoe.

ĸioe				
Coal	2011	2012		
Anthracite	0.00	0.00		
Bitumen and other Coal	0.00	0.00		
Coke coal	0.00	0.00		
Brown Lignite/Coal	23.04	16.10		
Coke and semi-coke	0.00	0.00		
Coal gas, gas, etc.	0.00	0.00		
Turpentine coke from soot	0.00	0.00		
Brown coal briquette	0.28	0.00		
Soot	0.00	0.00		
Peat	0.00	0.00		
Total	23.32	16.10		

Table 17. Overview of the consumption types of coal in the household sector, expressed in



Figure 15. Overview of the consumption of all coal types in the household sector (%)

1.4.3. Petroleum product consumption in the household sector

Table 18 presents the state of consumption of petroleum products in the household sector. LPG is the energy product of all petroleum products consumed most by households, with 10.02 ktoe or 56.3% of the overall consumption, followed by diesel with 4.34 ktoe or 24.4% and gasoline with 3.43 ktoe or 19.3%.

(Mit	, , , , , , , , , , , , , , , , , , , ,	
Petroleum products	2011	2012
Gasoline	6.14	3.43
Gasoil	0.00	0.00
Kerosene	0.00	0.00
Kerosene (Jet fuel)	0.00	0.00
Fuel oil/heavy oil	0.00	0.00
Diesel	8.74	4.34
LPG	10.94	10.02
Petroleum coke	0.00	0.00
Other petroleum products	0.00	0.00
Petroleum remnants	0.00	0.00
Bitumen	0.00	0.00
Total	25.82	17.79

Table 18. Overview of the consumption of all petroleum products in the household sector (ktoe)



Figure 16. Overview of all petroleum products consumed in the household sector (%)

1.5. Energy consumption in the services sector

1.5.1. Consumption of all energy products in the services sector

Similar to the household sector, in the services sector energy is used mainly for heating purposes, air conditioning, water heating, cooking, lighting, and utilization of energy equipments in private and public facilities.

During 2012, services sector consumed in total 117.09 toe, marking a decrease of 2.1% in comparison to 2011.

The services sector is divided in two main sub-sectors: public sub-sector and private subsector, which include public administration, public and private healthcare services, public and private education facilities, hotelier and touristic services, consultancies, cultural and sports facilities, etc.

Source	2011	2012
Coal	3.92	2.71
Petroleum products	46.06	46.17
Biomass	6.37	6.71
Electricity	61.72	59.81
Solar energy	0.44	0.48
Gained heat	1.06	1.21
Total	119.57	117.09

 Table 19. Overview of the consumption of all energy products in the services sector

 (ktoe)



Figure 17. Proportion of energy sources used in the services sector (%)

In 2012, the most consumed energy source in the services sector was electricity, with 59.81 ktoe or 51.1% of the overall consumption. The utilization of other energy sources was as follows: petroleum products 46.17 ktoe or 39.4%, biomass 6.71 ktoe or 5.7%, coal 2.71 ktoe or 2.3%, gained heat 1.21 ktoe or 1.0%, solar energy 0.48 ktoe or 0.4% of the overall energy sources used in the services sector. Regarding gained heat, heating supply was not stable, because of the collective disconnections of district heating clients due to the lack of fuels for combustion for heating purposes (heavy duty oil).

1.5.2. Coal consumption in the services sector

Coal	2011	2012
Anthracite	0.00	0.00
Bitumen and other Coal	0.00	0.00
Coke coal	0.00	0.00
Brown Lignite/Coal	3.92	2.59
Coke and semi-coke	0.00	0.00
Coal gas, gas, etc.	0.00	0.00
Turpentine coke from soot	0.00	0.00
Brown coal briquette	0.00	0.00
Soot	0.00	0.00
Peat	0.00	0.00
Total	3.92	2.59

Table 20. Overview of consumption of all coal types in the service sector (ktoe)

The only type of lignite consumed in the services sector was lignite, at an overall amount of 2.59 ktoe in 2012. It is used for heating facilities in the services sector.

1.5.3. Consumption of petroleum products in the services sector

Petroleum products	2011	2012
Gasoline	0.26	0.23
Gasoil	0.00	0.00
Kerosene	0.00	0.00
Kerosene (Jet fuel)	0.00	0.00
Fuel oil/heavy oil	13.24	11.32
Diesel	18.36	21.60
LPG	14.21	13.02
Petroleum coke	0.00	0.00
Other petroleum products	0.00	0.00
Petroleum remnants	0.00	0.00
Bitumen	0.00	0.00
Total	46.06	46.17

Table 21. Overview of the consumption of all petroleum products in the services sector (ktoe)



Figure 18. Overview of the consumption of all petroleum products in the services sector (%)

The most consumed petroleum product in the services sector is diesel, amounting to 21.60 ktoe or 46.8% of the total of petroleum products used, followed by LPG with 13.02 ktoe or 28.2%, heavy duty oil with 11.32 ktoe or 24.5% and gasoline with 0.23 ktoe or 0.5% of the overall consumption of petroleum products.

1.6. Energy consumption in the transport sector

1.6.1. Consumption of all energy products in the transport sector

Transport sector includes all transport means, regardless of the economic sector they are used in (transport, household, industry, services, agriculture).

The transport sector includes road, railroad and air transport.

		1
Source	2011	2012
Diesel	241.61	249.80
Gasoline	71.58	67.23
Kerosene	11.93	14.29
LPG	13.34	11.34
Total petroleum products	338.45	342.65
Biofuels	0.13	0.00
Total	338.58	342.65

Table 22. Overview of the consumption of all energy sources in the transport sector (ktoe)



Figure 19. Proportion of all energy sources in transport sector consumption (%)

Assumed energy consumption in the transport sector for 2012 was 342.65 ktoe, marking an increase of 1.2% compared to 2011.

Diesel is the most used energy product in 2012 by the transport sector, covering 249.80 ktoe or 72.9% of the overall consumption in the transport sector. The second most used energy product used in the transport sector is gasoline with 67.23 ktoe or 19.6% of the total consumption, kerosene (used exclusively in air transport) with 14.29 ktoe or 4.2% of the total consumption and LPG with 11.34 ktoe or 3.3% of the total consumption.

1.7. Energy consumption in the agricultural sector

1.7.1. Consumption of all energy sources in the agricultural sector

Energy consumption in the agricultural sector in 2012, calculated as a subtraction of the amount supplied and the amount of energy for all other sectors, amounts to 19.85 ktoe, marking a decrease of 0.5% compared to 2011. Energy products used most in the agriculture sector are petroleum products with 10.94 ktoe or 55.1% of the overall energy consumed by the sector, electricity with 6.66 ktoe or 33.6%, biomass with 2.25 ktoe or 11.3% of the overall energy consumption in this sector.

	~	0
Source	2011	2012
Coal	0.26	0.00
Petroleum products	10.61	10.94
Biomass	2.20	2.25
Electricity	6.87	6.66
Total	19.95	19.85

Table 23. Overview of consumption of all energy sources by the agriculture sector (ktoe)



Figure 20. Overview of the consumption of all energy sources in the agriculture sector (%)

1.7.2. Coal consumption in the agriculture sector

.4. Over view of the consumption of all coal types	s in the ugrid	<i>unure</i> secie
Coal	2011	2012
Anthracite	0.00	0.00
Bitumen and other Coal	0.00	0.00
Coke coal	0.00	0.00
Brown Lignite/Coal	0.26	0.00
Coke and semi-coke	0.00	0.00
Coal gas, gas, etc.	0.00	0.00
Turpentine coke from soot	0.00	0.00
Brown coal briquette	0.00	0.00
Soot	0.00	0.00
Peat	0.00	0.00
Total	0.26	0.00

Table 24. Overview of the consumption of all coal types in the agriculture sector (ktoe)

There was no consumption of coal in the agriculture sector in 2012.

1.7.3. Consumption of petroleum products in the agriculture sector

Table 25. Overview of the consumption of all petroleum products in the agriculture sector (ktoe)

Petroleum products	2011	2012
Gasoline	0.06	0.06
Gasoil	0.00	0.00
Kerosene	0.00	0.00
Kerosene (Jet fuel)	0.00	0.00
Fuel oil/heavy oil	0.00	0.00
Diesel	10.52	10.88
LPG	0.04	0.00
Petroleum coke	0.00	0.00
Other petroleum products	0.00	0.00
Petroleum remnants	0.00	0.00
Bitumen	0.00	0.00
Total	10.61	10.94



Figure 21. Overview of the consumption of all petroleum products in the agriculture sector (%)

Diesel is the energy product consumed most in the agriculture sector. The amount this energy product consumption amounts to 10.88 ktoe, or 99.5% of the total energy consumed in the sector. Gasoline takes merely 0.5%.

1.8. Energy demand coverage in all sectors

1.8.1. Coal (lignite) supply

Table 26. Lignite demand coverage by economic sector (ktoe)

Economic sector	2011	2012
Industry	29.02	10.25
Household	23.04	16.10
Agriculture	0.26	0.00
Services	3.92	2.59

Final energy consumption	56.25	28.94
Available for final consumption	56.25	28.94

The basis for the calculation of lignite consumption in 2012 is official lignite sales data (wet and dry) obtained by 'Kosova Coal' J.S.C. and the department of mining commercial support in KEK.

1.8.2. Electricity supply

Electricity supply in 2012 was mainly provided through generation in Thermal Power Plants Kosova A and Kosova B, and hydro power plants Ujmani, Lumbardhi, Radavci, Dikanci and Burimi. Amount of electricity generated in thermal power plants in 2012 reached 502.86 ktoe, whereas electricity generated in hydro power plants amounted to 8.22 ktoe.

As presented in Table 27, electricity power supply in 2012 from thermal power plants was 5,383.98 GWh, and from hydro power plants 95.58 GWh. Electricity supplied via import amounted to 625.058 GWh.

2012	MWh
⁴ TPP Kosova A	1,948,517
⁵ TPP Kosova B	3,435,458
HPP Ujmani	64,873
SHPP Lumbardhi	22,901
SHPP Radavci	2,451
SHPP Dikanci	4,367
SHPP Burimi	987
Total	5,479,554

Table 27.	Electricity	generation
-----------	-------------	------------

Source: annual electricity balance 2012 – KOSTT J.S.C.

1.8.3. Petroleum product supply

Petroleum products were supplied through imports. Below is the coverage of petroleum product consumption for energy and non-energy purposes:

Economic sector	2012	
Industry	104.41	
Transport	342.65	
Household	17.79	
Agriculture	10.94	
Services	46.17	
Final energy consumption	521.97	
Final non-energy consumption	39.22	
Available for final consumption	546.35	

Table 28. Petroleum product demand coverage by economic sector (ktoe)

⁴ TPP 'Kosova A' represents energy output in the transmission threshold

⁵ TPP 'Kosova B' represents energy output in the transmission threshold

Main consumer of petroleum products for energy purposes remains the transport sector with 342.65 ktoe or 65.6% of the total energy consumption of the said products, followed by the industry sector with 104.41 ktoe or 20%, services sector with 46.17 ktoe or 8.8%, household sector with 17.79 ktoe or 3.4% and agriculture sector with 10.94 ktoe or 2.1% of the total consumption.



Figure 22. Proportion of economic sectors in petroleum product demand coverage (%)

1.9. Energy indicators

There is a number of indicators that express the relation between energy and other economic, demographic and other indicators. Main such indicators include: Energy consumption per capita; and Energy intensity.

<u>Energy consumption per capita</u> – is an indicator of the economic development of a country. The amount of energy consumed per capita in Kosovo during 2012 was 0.69 toe⁶. <u>Energy intensity</u> – is an indicator that expresses the relation between available primary energy and the gross domestic product (GDP). In 2012, energy intensity amounted to 0.48toe/1000€. This indicator expresses energy efficiency of a given country's economy. The higher the intensity is, the more efficient is the country's economy, from energy consumption viewpoint.

1.10. Environmental pollution

Impact of the thermal power plants on environmental pollution

According to the Athens memorandum on the establishment of an Energy Union, also signed by Kosovo (22 March 2005), requirements of Directive 2001/80/EC have to be fulfilled by 31 December 2017. Current emissions of pollutant KEK thermal power plants, and limits according to the abovementioned directive are set in the table below:

⁶ Data on the official number of Kosovo residents obtained by SOK.

Ministry of Economic Development

Emission	TPP A	TPP B	Limit	Deadline for achievement
Dust (mg/Nm ³)	614	409	50.00	31.12.2017
$SO_2 (mg/Nm^3)$	601	611	400.00	31.12.2017
$NO_x (mg/Nm^3)$	670	813	500.00	31.12.2017

Table 32. Pollution limits according to the Athens memorandum

Source: 2012 Environmental Report, KEK J.S.C.

ANNEXES

Installed capacities of generation units of Kosovo's TPPs									
Thermal Power	TPP Unit C	Commissioning data							
Plant Unit	Installed	Net	Available	(age)					
TPP Kosova A		-	•						
Unit A1	65	58	0	1962 (51)					
Unit A2	125	110	0	1964 (49)					
Unit A3	200	182	100-130	1970 (43)					
Unit A4	200	182	100-130	1971 (42)					
Unit A5	210	187	100-135	1975 (38)					
TPP Kosova B									
Unit B1	339	310	180-260	1983 (30)					
Unit B2	339	310	180-260	1984 (29)					

Annex 1. Characteristics of Kosovo's energy system

Installed capacities of generation units from renewable energy sources (RES)

Renewable sources	Generator	Year of Commissioning	Active Power (MW)	
xxx: 1 1	G1	2010	0.45	
Wind-powered	G2	2010	0.45	
generators	G3	2010	0.45	
Total			1.35	

Installed capacities of generation units of Kosovo's HPPs

Concretion unit	Unit capacity (N	4W)	Commissioning
Generation unit	Installed	Net	(reconstruction)
HPP Ujmani	35.00	32.00	1983
HPP Lumbardhi	8.08	8.00	1957 (2006)
HPP Dikanci	1.00	0.94	1957 (2010)
HPP Radaci	0.90	0.84	1934 (2010)
HPP Burimi	0.86	0.80	1948 (2011)
Total HPPs	45.84	42.58	

Length of the lines of Kosovo's electricity system

Lines			
High voltage	Length	Medium and low voltage	Length
kV	km	kV	km
400	188.49	35	648.42
220	231.83	10	5861
110	764.95	0.4	16760
Total	1185.27		23427

Company (city)	Installed capacity (MW)	Operational capacity (MW)	Length of distribution grid (km)	Number of substations
DH Termokos	135.62	135.62	70	323
DH Gjakova	38.6	20	23.5	260
DH Mitrovica	16.9		4.5	20
DH Zveçan	1.6		0.8	

Generation capacities of Kosovo's district heating companies

Unit conversion								
	kcal	kJ	kWh	kgoe				
1 kcal	1	4.1871	0.001163	0.0001				
1kJ	0.2388	1	0.000278	0.0239 x 10 ⁻³				
1kWh	860	3600	1	0.086				
1kgoe	10000	41871.4	11.62	1				

Energy source characteristics

Energy type	Unit	kJ	kgoe	toe	ktoe
Anthracite	kg	27,000.00	0.645	6.45E-04	6.45E-07
Bitumen coal and other	kg	20,125.00	0.481	4.81E-04	4.81E-07
Coal stone for coke	kg	29,310.00	0.700	7.00E-04	7.00E-07
Lignite	kg	7,802.15	0.186	1.86E-04	1.86E-07
Coke and semi-coke	kg	28,500.00	0.681	6.81E-04	6.81E-07
Coal gas, water gas, etc.	kg	20,000.00	0.478	4.78E-04	4.78E-07
Turpentine coke from coal tar	kg	37,700.00	0.900	9.00E-04	9.00E-07
Brown coal	kg	8,060.24	0.193	1.93E-04	1.93E-07
Brown Coal Pellet	kg	20,014.53	0.478	4.78E-04	4.78E-07
Peat	kg	10,802.82	0.258	2.58E-04	2.58E-07
White fuel	kg	43,600.00	1.041	1.04E-03	1.04E-06
Aviation gasoline	kg	44,006.84	1.051	1.05E-03	1.05E-06
Gasoline	kg	44,006.84	1.051	1.05E-03	1.05E-06
Kerosene	kg	43,001.93	1.027	1.03E-03	1.03E-06
Fuel oils/heavy duty oil	kg	39,610.34	0.946	9.46E-04	9.46E-07
Petroleum	kg	42,290.11	1.010	1.01E-03	1.01E-06
LPG	kg	46,016.67	1.099	1.10E-03	1.10E-06
Petroleum coke	kg	31,403.55	0.750	7.50E-04	7.50E-07
Other petroleum products	kg	39,987.19	0.955	9.55E-04	9.55E-07
Bitumen	kg	37,684.26	0.900	9.00E-04	9.00E-07
Petroleum remains	kg	39,987.19	0.955	9.55E-04	9.55E-07
Biomass (20% humidity)	m ³	6,155,095.80	147.17	1.47E-01	1.47E-04
Biomass (40% humidity)	m ³	3,596,585.77	85.90	8.59E-02	8.59E-05
Biomass (45% humidity)	m ³	3,507,670.18	83.77	8.38E-02	8.38E-05
Biofuel	kg	6,168,000.00	0.874	8.74E-04	8.74E-07
Heating	kWh	3,600.94	0.086	8.60E-05	8.60E-08
Electricity	kWh	3,600.94	0.086	8.60E-05	8.60E-08

Annual Energy Balance of the Republic of Kosovo for the year 2012

Annex 3. Annual energy balance of the Republic of Kosovo for 2012

			Bitumeno	0		Coke	Coal	Terpenti	Brown			Tatal
Annual (realized) energy balance for 2012 (ktoe)	Total	ite	other	coal	Lignite	semi-	gas, water	ne coal	coal	Tar	Soot	coal
			coal			coke	gas, etc	from tar	bricquet			
Primary production	1746.64				1493.28							1493.28
Gained production												
lm ports	668.82	23.05	15.77	0.00	9.82	0.42	0.00	0.00	0.00	0.00	0.40	49.47
Stock difference	-14.65				-14.65							-14.65
Exports	42.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bunkers												
Gross dom estic consum ption	2358.24	23.05	15.77	0.00	1488.46	0.42	0.00	0.00	0.00	0.00	0.40	1528.10
Transform ation input	1469.18	0.00	0.00	0.00	1459.52	0.00	0.00	0.00	0.00	0.00	0.00	1459.52
Therm al Power Plants	1462.84				1459.52							1459.52
Therm al Power Plants with automatic production												
Nuclear plants												
Facilities with patented fuels and pricquets												
Facilities with mostin furness												
Constitues with mattern turnates												
District heating facilities	5.65											
S olar nanels	0.69											
Transform ation output	508 21	0.00	0 0 0	0 0 0	0.00	0.00	0.00	0.00	0 0 0	0 0 0	0 0 0	0 0 0
Thermal Power Plants	502.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thermal Power Plants with automatic production	002.00											
Nuclear plants												
Facilities with patented fuels and bricquets												
Facilities with coke furnaces												
Facilities with martin furnaces												
Gasification plants												
R e fin e rie s	0.00											
District heating facilities	4.66											
S olar panels	0.69											
Exchanges and transfers, return	0.00											
M id-product transfers												
Transferred products												
Returns from chemical industry												
Transform ation losses	0.00											0.00
Consumption by energy branches (self-consumption)	65.55											
Losses in transmission and distribution	80.62											
A vailable for final consumption	1251.10	23.05	15.77	0.00	28.94	0.42	0.00	0.00	0.00	0.00	0.40	68.58
Final non-energy consumption	39.62									0.00	0.40	0.40
Chemical Industry	0.40									0.00	0.40	0.40
	39.22									0.00	0.00	0.00
Final energy consumption	1226.30	23.05	15.77	0.00	28.94	0.42	0.00	0.00	0.00	0.00	0.00	68.17
In dustry	272.98	23.05	15.65	0.00	10.25	0.42						49.36
Non-ferric metal industry	85.31	£ 0.4	15.60		8.10	0.42	l					35.64
Chemical industry	1 56	0.31			0.00	0.00						0.31
Glass, ceramics and construction materials industry	55.64				0.00							0.00
O re extraction industry	2.12				0.00							0.00
Food, beverages and tobacco industry	58.21	4.61	0.05		1.98		l					6.64
Textile, leather and clothes industry	0.13				0.00							0.00
Paper and printing industry	0.24			1	0.00	1	t	ł				0.00
Engineering and other metal industries	0.01				0.00	l	1	1				0.00
O ther industries	32.02	1			0.00	i	t –	İ				0.00
Transport	342.65			0.00								
Railroad transport	0.99											
Road transport	327.38											
A ir transport	14.29											
Internal navigation												
Household	473.73			0.00	16.10				0.00			16.10
Agriculture	19.85			0.00	0.00							0.00
S e rvic e s	117.09		0.12	0.00	2.59	0.00						2.71
Statistical difference	-14.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual Energy Balance of the Republic of Kosovo for the year 2012

Annual (realized) energy balance for 2012 (ktoe)	Gasoline	G a s-o il	Kerosen e	Kerosen e (jet fuel)	Heavy oil	Diesel	LPG	Petroleu m coke	Other petroleu m products	Lubrican toil	Petrolue m remains	Bitum en	Total petroleu m products
Primary production													
Gained production													
Im ports	71.51	0.00	0.00	14.29	46.61	307.84	37.53	43.68	0.00	5.22	0.00	35.38	562.05
Stock difference													
Exports	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.38	1.40
Bunkers													
G ross dom estic consum ption	71.51	0.00	0.00	14.29	46.58	307.84	37.53	43.68	0.00	5.22		34.00	560.65
Transformation input		0.00	0.00		7.19	1.79	0.00	0.00					8.98
Therm al Power Plants					1.54	1.79							3.33
Therm al Power Plants with autom atic production													
Nuclear plants													
Facilities with patented fuels and bricquets													
Facilities with coke furnaces													
Facilities with martin furnaces													
G asification plants													
R e fin e rie s		0.00	0.00		0.00								0.00
District heating facilities					5.65								5.65
Solar panels													
Transform ation output	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00
Therm al Power Plants													
Therm al Power Plants with autom atic production													
Nuclear plants													
Facilities with patented fuels and bricquets													
Facilities with coke furnaces													
Facilities with martin furnaces													
G asification plants													
R e fin e rie s					0.00	0.00	0.00						0.00
District heating facilities													
Solar panels													
Exchanges and transfers, return													
M id-product transfers													
Transferred products													
Returns from chemical industry													
Transformation losses					0.00	0.00	0.00	0.00	0.00	0.00			0.00
Consum ption by energy branches (self-consum ption)					3.07	2.25							5.32
Losses in transmission and distribution													
A vailable for final consum ption	71.51	0.00	0.00	14.29	36.32	303.81	37.53	43.68	0.00	5.22		34.00	546.35
Final non-energy consum ption	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	5.22		34.00	39.22
Chemical industry												0.00	0.00
O ther sectors										5.22		34.00	39.22
Final energy consum ption	71.51	0.00	0.00	14.29	36.32	311.73	44.44	43.68	0.00	0.00		0.00	521.97
In dustry	0.55	0.00		0.00	25.00	25.11	10.07	43.68	0.00	0.00		0.00	104.41
Iron and steel industry	0.00				0.00	0.51	0.00	5.19					5.70
Non-ferric metal industry	0.00				22.07	7.32	0.03	0.00					29.42
Chemical industry	0.03				0.00	0.04	1.23						1.29
Glass, ceram ics and construction materials industry	0.35				1.76	12.18	6.23	29.39					49.91
Ore extraction industry	0.01				0.49	0.37	0.00						0.87
Food, beverages and tobacco industry	0.14				0.37	3.47	2.47						6.45
Textile, leather and clothes industry	0.00				0.03	0.01	0.00						0.04
Paper and printing industry	0.00				0.00	0.07	0.01						0.08
Engineering and other metal industries	0.00				0.00	0.00	0.00						0.00
O ther industries	0.03				0.29	1.14	0.11	9.09				0.00	10.66
Transport	67.23	0.00		14.29		249.80	11.34	0.00	0.00	0.00		0.00	342.65
Railroad transport	0.00					0.99	0.00						0.99
Road transport	67.23					248.81	11.34						327.38
A ir transport	0.00			14.29		0.00	0.00						14.29
Internal navigation	0.00					0.00	0.00						
H o u se n o la	3.43	0.00		0.00		4.34	10.02	0.00	0.00	0.00		0.00	17.79
A gricuiture	0.06	0.00		0.00	44.00	10.88	0.00	0.00	0.00	0.00		0.00	10.94
	0.23	0.00		0.00	11.32	21.60	13.02	0.00	0.00	0.00		0.00	46.17
S TA TISTICA I DITTE FE N C E	0.00	0.00	0.00	0.00	0.00	-7.92	-6.91	0.00	0.00	0.00		0.00	-14.83

Annual Energy Balance of the Republic of Kosovo for the year 2012

Annual (realized) energy balance for 2012 (ktoe)	Logwood	Biofuels	Hydro-energy	Solar en ergy	Wind energy	Gained heat	E le ctricity
Primary production	244.45		8.22	0.69	0.00		
Gained production							
Im ports	3.54	0.00					53.75
Stock difference							
E x p o rts	0.499	0.00					40.66
B un kers							
Gross dom estic consum ption	247.49	0.00	8.22	0.69	0.00		13.09
Transformation input	0.00	0.00	0.00	0.69	0.00		0.00
Therm al Power Plants							
Therm al Power Plants with autom atic production							
N u c le ar p lants							
Facilities with patented fuels and bricquets							
Facilities with coke furnaces							
Facilities with martin furnaces							
G as ification plants							
R e fin e rie s							
D is trict heating facilities							
S olar panels				0.69			
Transform ation output	0.00	0.00	0.00	0.69	0.00	4.66	502.86
Therm al Power Plants							502.86
Therm al Power Plants with autom atic production							
Nuclear plants							
Facilities with patented fuels and bricquets							
Facilities with coke furnaces							
Facilities with martin furnaces							
G as incation plants							
R efin efies							
District neating facilities						4.66	
				0.69			
Exchanges and transfers, return	0.000		-8.22		0.00		8.22
Mid-product transfers			-8.22		0.00		8.22
Patiens free products							
Transform a tion losses	0 0 0 0						
Consumption by one ray branches (solf consumption)	0.000					0.46	E 0 7 7
losses in transmission and distribution	0.000					0.40	79.87
A vailable for final consumption	24749	0.00	0.00	e a .0	0.00	3.44	384 54
	0,000	0.00	0.00	0.00	0.00	0.44	0.04
Chemical industry	0.000						5.00
O ther sectors							
Final engy consumption	247.50	0.000	0.00	0.69	0.00	3.44	384.54
In du strv	11.28	0.000	0.00	0.00	0.00		107.92
Iron and steel industry	0.05			5.00			4 3 . 9 3
Non-ferric metal industry	0.00						1.39
Chemical industry	0.03				1		0.24
Glass, ceramics and construction materials industry	0.29						5.28
Ore extraction industry	0.05						1.20
Food, beverages and tobacco industry	4.76						40.37
Textile, leather and clothes industry	0.00						0.09
Paper and printing industry	0.01						0.16
Engineering and other metal industries	0.00						0.01
O ther industries	6.11						15.24
Transport	0.000	0.00	0.00	0.00	0.00		
Railroad transport							
Road transport		0.00					
A ir transport							
Internal navigation							
Household	2 2 7 . 2 5	0.00	0.00	0.21	0.00	2.24	210.15
A g ric u l tu re	2.25	0.00	0.00	0.00	0.00		6.66
Service s	6.71	0.00	0.00	0.48	0.00	1.21	59.81
Statistical difference	0.00	0.00	0.00	0.00	0.00	0.00	0.00

