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



ANNUAL REPORT 2019

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List of abbreviations

CPA	Central Procurement Agency
EU	European Union
RES	Renewable Energy Sources
CCP	Customer Care Programme
CEER	Council of European Energy Regulators
TENG D	Thermal Energy and Natural Gas Department
LLD	Legal and Licensing Department
CPD	Customer Protection Department
TPD	Tariffs and Pricing Department
EMD	Energy Market Department
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECRB	Energy Community Regulatory Board
SEE	South East Europe
EMS	Serbia Transmission System Operation
ENS	Energy Not Supplied
ENTSO-E	European Network of Transmission System Operators for Electricity
ERC	Energy and Water Regulatory Commission of the Republic of Northern Macedonia
ERE	Albanian Energy Regulator Authority
ERRA	Energy Regulators Regional Association
USS	Universal Service Supplier
GWG	Gas Working Group
PHLG	Permanent High Level Group
GWh	Gig watt hour
HC	Hydropower Plant
MAR	Maximum Allowed Revenue
IAP	Ion-Adriatic-Pipeline
ITC	Inter TSO Compensation
EnC	Energy Community
KEDS	Kosovo Electricity Distribution and Services
SEEEC	South East Europe Energy Community
KEK	Kosovo Electricity Corporation
KESCO	Kosovo Electricity Supply Company
KESH	Albanian Energy Corporation
KfW	German Development Bank
CM	Council of Ministers
km	Kilometer
KOSTT	Transmission, System and Market Operators
KPSC	Kentucky Public Service Commission
kV	Kilovolt
kW	Kilowatt
OL	Overhead line
MPA	Ministry of Public Administration

PPA	Power Purchase Agreement
MESP	Ministry of Environment and Spatial Planning
MVA	Megavoltamper
MW	Megawatt
MWh	Megawatt hour
MW_{TH}	Thermal Megawatt
MED	Ministry of Economic Development
NARUC	National Association of Regulatory Utility Commissioners
AU	Administration unit
DH	District Heating
SS	Substation
DSO	Distribution System Operator
TSO	Transmission System Operator
MO	Market Operator
PECI	Projects of Energy Community Interest
EP	Regulatory Period
RAB	Regulated Asset Base
RoR	Rate of Return
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SCADA	Supervisory Control and Data Acquisition
SKE	Energy Community Secretariat
TAP	Trans-Adriatic-Pipeline
PP	Power Plant
TF	Task Force
TKE	Energy Community Treaty
MV	Medium Voltage
TR	Transformer
LV	Low Voltage
VAT	Value Added Tax
AI	Administrative Instruction
USAID	United States Agency for International Development
WACC	Weighted Average Cost of Capital
WBIF	Western Balkans Investment Framework
CA	Cadastral Area
ERO	Energy Regulatory Office (ERO)

1 EXECUTIVE SUMMARY

Pursuant to the obligations contained in the Law No. 05/L-084 on the Energy Regulator, the Energy Regulatory Office (hereinafter ERO) presents the Annual Report 2019 for review by the Assembly of the Republic of Kosovo. The Annual Report contains information on activities undertaken and results achieved in relation to the scope of ERO, as well as analysis regarding the energy enterprise activities, according to licensee data, and present an overview of the energy market development in Kosovo. An integral part of this report is also ERO's financial report for 2019.

The Regulator drafted secondary legislation for the energy sector, based on the requirements arising from the primary laws and the obligations deriving from the Energy Community, where Kosovo is a participant in the Energy Community Treaty. The drafting and review of the secondary legislation by the Regulator is done by applying public consultations where third parties can provide their stands.

Further, a brief summary of the Regulator's activities and developments in the energy sector is presented, starting with the obligations, responsibilities, organizational structure and funding of the Regulator.

- An important activity of the Regulator is the licensing of energy enterprises for generation, supply/trade, transmission and distribution of energy. The Regulator's Board has issued licenses for energy generation to the companies; Hydroenergy, Kelkos Energy, Kosovo Energy Corporation (KEK for the TPP Kosova A - license extension) and in the process of review is the application of Contour Global Kosova.

The license for the company Enerco LLC has been issued for the supply of electricity.

The Regulator, through various forms of support, including the Support Scheme and priority in dispatching, pays special attention to the development of Renewable Energy Sources (RES) projects. The projects for the development of RES are realized through the authorizations issued by the Regulator, where during 2019 the Regulator has issued 22 preliminary authorizations, 2 final authorizations, has modified 4 final authorizations and 3 applications are in the process of review. In the process of construction are 4 projects with wind turbines, some projects of small hydropower plants and a project of biomass.

Also, during 2019, 20 decisions have been issued for the construction of self-consumption generators.

- During 2019, the Regulator has continued to monitor licensed energy companies, including the energy market.

Monitoring reports are published on the ERO website.

- The Regulator has reviewed the applications of licensed entities for allowed revenues and tariffs in the electricity sector, for the transmission, distribution, bulk purchases of electricity and the supply of electricity to customers with universal service, as well as the review of the tariff application for thermal energy.
- In February 2019, the Regulator's Board certified the Transmission System Operator, thus concluding the certification process which was considered successful by the Energy Community Secretariat.

- In the framework of customer protection, the Regulator during 2019 has received 75 new complaints from customers, while it has resolved 263 complaints, including those from previous years.
- In the framework of its cooperation activities and relations with other institutions, the Regulator has made reports to the Assembly of Kosovo, and has had meetings with parliamentary committees and concluded an agreement with the Kosovo Chamber of Commerce.

During 2019, cooperation agreements were signed with international partners such as the Energy and Water Regulatory Commission (ERC) of the Republic of Northern Macedonia and the Energy Regulatory Entity (ERE) of the Republic of Albania.

As part of the cooperation with NARUC, issues for vulnerable customers and cyber security were discussed.

- In carrying out and performing the duties and responsibilities defined by law, the Regulator has participated in international activities organized by the Energy Community Secretariat as a participant in working groups for electricity, gas, customers and retail markets, as well as for REMIT and cyber security.
- The Regulator is funded from its own revenues, in accordance with the Law on Energy Regulator, and during 2019 has realized revenues in the amount of € 1,329,192.29, while it has spent € 699,215.18 and the unspent portion in the amount of € 629,977.11 has been poured into the Budget of the Republic of Kosovo.

The second part of the report contains the activities of the licensees in the energy sector where electricity, thermal energy and natural gas are analysed separately.

- In the electricity sector the report contains data on the electricity market, production, transmission, distribution, demand, losses, supply, imports, exports and wholesale and retail electricity prices.
- Electricity production in 2019 was 5,718 GWh, of which 5,404 GWh are from thermal power plants, while from HP and other RES are 314 GWh, and there is an increase of 7.7% compared to production in 2018.
 - The total demand for electricity in the system in 2019 was 6,001 GWh, which represents an increase of 5.8% compared to the demand in 2018.
 - Losses in the transmission network are at an acceptable level of 1.25% to the energy introduced into the transmission.
 - Losses in the distribution network are quite high. Technical losses are 12.84%, while unauthorized energy consumption (hereinafter referred to as commercial losses) accounts for 13.04% of the distribution demand, of which unencumbered energy in the four northern municipalities of Kosovo is 5.53% (294 GWh). The supply of customers in 2019 includes the supply of customers with the right to universal service and unregulated customers. The share of household customers in total consumption is about 57%, while with 43% other customers participate.

2019	Load	Realisation	Billing	Collection
	MWh	MWh	€	€
Regulated customers (distribution)	5,321,999	3,944,315	278,206,817	276,721,423
Unregulated customers (transmission)	573,713	573,713	27,801,482	27,801,482
Total	5,895,713	4,518,028	306,008,300	304,522,905

For the category of household customers, the average price of energy is € 5.68 cents / kWh, while for non-household customers the average price of energy is € 7.33 cents / kWh.

- The following table reflects the main data realized in 2019 compared to the balance sheet of 2019 and the realization in 2018, which shows that to balance the system-supply to demand there is a need for imports and exports.

	Unit	Generation	Demand	Import	Export	Losses	
						Transmission	Distribution
Realisation 2019	GWh	5,718	6,001	928	905	105	1,378
Balance 2019	GWh	5,696	5,627	693	650	110	1,341
Ratio Realis./Balance	%	100.38	106.65	133.98	139.23	95.90	102.71
Realisation 2018	GWh	5,311	5,686	1,242	880	118	1,464
Ratio 2019/2018	%	107.66	105.54	74.76	102.84	89.40	94.10

- As for the thermal energy sector, the situation remains largely unchanged. The cogeneration project in DH Termokos has given good results by raising the quality of heating for customers connected to the network, while the cogeneration project in DH Gjakova is in the process of realization.
 - Thermal energy production in 2019 in DH Termokos was 235 GWh_{Th}, while in DH Gjakova 9.1 GWh_{Th};
 - Thermal energy consumption in 2019 in DH Termokos was 210 GWh_{Th}, while in DH Gjakova 6.9 GWh_{Th};
 - Thermal energy losses in 2019, in DH Termokos were 8.44% (only for the primary distribution network), while in DH Gjakova 20%.
- In Kosovo, there is no functional infrastructure and natural gas market, but energy laws and energy strategy envisage the development of natural gas infrastructure, through connection with gas infrastructure projects in the region of Southeast Europe, through the gas pipeline project. TAP ("Trans-Adriatic-Pipeline" - Pipeline Beyond the Adriatic) and the Northern Macedonia-Kosovo Gas Interconnection Project - Kosovo.

2 ENERGY REGULATORY OFFICE

Energy Regulatory Office (ERO) is an independent agency and separated in legal and functional terms from any other natural or legal person. ERO's duties and functions are defined in the Law 05/L-084 on Energy Regulator, which includes: the efficient, transparent and non-discriminatory creation and functioning of the energy market; determining the terms and conditions as well as granting of licenses for carrying out activities in the field of energy; determining the terms and conditions and the granting of authorizations for construction of new capacities; market monitoring and the care to improve energy supply security; setting tariffs for energy activities in a reasonable manner and based on tariff methodology; monitoring and preventing the creation of dominant position and uncompetitive practices by energy enterprises, as well as resolving complaints and disputes in the energy sector.

ERO is responsible for designing and implementing the regulatory framework for the energy sector in Kosovo, in order to achieve compliance with the obligations of SEECC Treaty and alignment with the "*acquis communautaire*" on energy, ensure non-discriminatory access to all energy network users at prices reflecting true economic costs.

2.1 The Board of the Regulator

The Board of the Regulator consists of 5 members including the chairman, who are appointed as full-time employees by the Assembly of Kosovo with a term of five (5) years. The Board of the Regulator is a decision-making body for all matters under the Regulator's jurisdiction and competence. The Board takes decisions by majority vote and has the quorum needed to take a decision if at least three Board members are present, but there should be three (3) votes in favour in order to become a final decision. The Board states its stances regarding the issues it handles through decisions that are taken at open sessions announced in advance on ERO's official website.

From May 2017, the ERO Board operates with acting chairpersons but has the necessary quorum for decision-making.

On December 31, 2019, the Board of the Energy Regulatory Office consisted of the following members:

Arsim Janova, Acting chairman;

Besim Sejfiqaj, member;

Selman Hoti, member; and

Izet Rushiti, member.

For decision-making purposes, in accordance with the authority granted under the legislation in force, the ERO Board has held regular meetings where it discussed about the functioning of the energy system in Kosovo, and adequate decisions were taken and documents needed for the sector were approved.

The ERO's Board until December 2019 has held a total of eleven (11) public meetings, in which 134 decisions related to:

- Market monitoring and energy sector activities;
- Liberalization of the energy market;
- Price adjustment;
- Licensing of energy activities in Kosovo;
- Authorization for construction of new generation capacities from renewable sources;
- Customer protection;
- Approval of rules, methodologies and other energy sector documents, and
- Other issues within its responsibilities.

Most of the approved and reviewed documents were initially subject to public discussion, as foreseen by law, to include all parties involved in the decision-making processes and are published in ERO's official website.

The Board, for all activities, was supported by: Managing Director, Administration Unit and 5 departments as follows:

- Legal and Licensing Department (LLD)
- Energy Market Department (EMD)
- Tariffs and Pricing Department (TPD)
- Customer Protection Department (CPD)
- Thermal Energy and Natural Gas Department (TENGS)

In terms of professional qualifications, the Board of ERO has targeted the employees' specialization in the relevant profiles within their responsibilities, through various training courses organized inside and outside the country.

2.2 Organizational Structure and Human Resources

The Regulator is organized in accordance with the Law on Energy Regulator (Chapter II of the Law) and the Regulator's Operations Manual. The Board of the Regulator, according to the responsibilities defined by law, performs the following activities:

- approves the regulatory and operational policies of the Regulator;
- organizes and supervises the work of the Regulator;
- oversees the implementation of the Budget and Financial Management of the Regulator and approves its financial reports and statements;
- organizes recruitment procedures and supervises the work of the staff employed by the Regulator;
- approves compensation levels and other employment conditions for employees of the Regulator;
- drafts and approves bylaws that are necessary for implementation of the Law on Energy Regulator.

The organizational structure of the Regulator is determined by the Board of the Regulator based on the responsibilities and duties provided in the Law on Energy Regulator no. 05/L-084. The basic structure consists of the Managing Director, the Assistance Officer of the Board, the Public Relations Officer, five departments and the Administration Unit (AU) which were established in accordance with the operational duties of the Regulator.

2.2.1 Managing Director

The managing director coordinates the activities between the Board and the professional and administrative staff; is responsible for implementing all decisions of the Regulator's Board, actively informs and advises the Board on developments in the energy sector, supports the Regulator's Board to ensure that all activities of the Regulator are carried out in accordance with the laws, regulations and policies of the Regulator, as well as oversees the work of the Regulator's departments. The Managing Director reports and responds directly to the Board and exercises the duties under the direction and guidance of the Board, in accordance with the Regulator's Manual of Operations.

2.2.2 Departments of the Regulator

Departments are headed by department heads, who organize, control, and plan, collaborate, evaluate his/her staff and are responsible for the activities and fulfilment of all tasks assigned to the work of the departments. The head of the department is responsible for delegating the day-to-day affairs of the department staff.

The role of department staff members is to perform tasks, whenever necessary according to legal requirements, and through department heads are proposed to the Board. In some cases, staff members may be authorized by the Board to perform special duties.

Staff members should work closely with the head of the department and other professional staff. The staff member should also have the opportunity to attend the trainings available from the Regulator, to improve their skills and professional knowledge.

Legal and Licensing Department (LLD)

Legal and Licensing Department is responsible for drafting secondary legislation, reviewing licensing applications by energy enterprises, reviewing applications on granting authorizations for construction of new capacities. This department also supervises and monitors licensees' activities

Energy Market Department (EMD)

Energy Market Department is responsible for market structure, monitoring the performance of market participants, evaluation and analysis of data in the energy sector. The Department also monitors competition and behaviour of market participants in an objective, transparent and non-discriminatory manner.

Tariffs and Pricing Department (TPD)

Tariffs and Pricing Department is responsible for evaluation of tariff applications of licensed enterprises, monitors the execution of operational and capital expenses through tariff reviews, undertakes all the measures to ensure that the tariffs are cost-reflective, reasonable, non-

discriminatory, based on objective criteria and established in a transparent manner, taking into consideration customer protection.

Customer Protection Department (CPD)

Customer Protection Department is responsible for reviewing and resolving complaints and disputes between customers and energy enterprises, system operators and energy enterprises as well as between two energy enterprises. In the course of exercising its duties and responsibilities, this Department cooperates with all institutions and organizations which legitimately represent customers.

Thermal Energy and Natural Gas Department (TENGD)

Thermal Energy and Natural Gas Department is responsible for reviewing and implementing strategies, performance standards and other operational practices that are related to these sectors. This Department carries out the monitoring of licensed enterprises through collection, analysis and evaluation of relevant data and information and also contributes to the development of reporting systems of district heating enterprises, focusing in technical-technological elements and integration of incentives and targets for efficiency. It also cooperates with other departments of ERO by providing support and technical expertise on issues related to thermal energy and natural gas.

Administration Unit (AU)

Administration Unit supports the functioning of ERO, administration of finances, organizes the efficient recruitment of ERO staff, coordinates trainings of the ERO staff, supply and maintenance of office equipment and assists in arranging the office by making it comfortable for work for all the ERO staff.

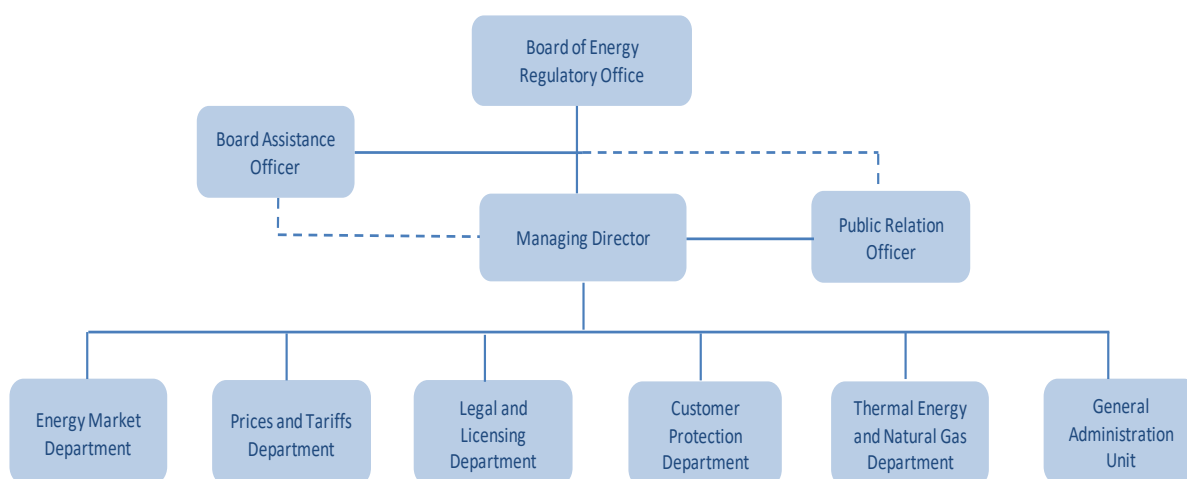


Fig. 2.1 Organizational Scheme of ERO

Brief description of organizational structure with job positions in 2019 is shown in the table below.

Tab. 2.1 Organizational structure

Job Positions	Planned Positions	Employed	Vacancies
ERO Board	5	4	1
Managing Director	1	1	0
Public Relations Officer	1	1	0
Board Assistance Officer	1	1	0
Administration Unit			
Head of Administration Unit	9	9	0
Chief Financial Officer			
Procurement Manager			
Administration Officer			
Data Manager Officer			
Database Development Expert			
English Translator			
Receptionist			
Driver/Maintenance			
Legal and Licensing Department (LLD)			
Head of Legal and Licensing Department	3	3	0
Legal Affairs and Monitoring Expert			
License Monitoring Analyst			
Tariffs and Pricing Department (TPD)			
Head of Tariffs and Pricing Department	4	4	0
Expert for Regulatory Affairs and Tariffs			
Tariffs and Prices Analyst			
Tariff Structure Analyst			
Energy Market Department (EMD)			
Head of Energy Market Department	4	4	0
Power Supply and Market Structure Analyst			
Power Systems Analyst			
Market Monitoring Analyst			
Thermal Energy and Natural Gas Department (TENGD)			
Head of Thermal Energy and Natural Gas Department	2	2	0
Thermal Energy Analyst			
Customer Protection Department (CPD)			
Head of Customer Protection Department	3	2	0
Customer Protection Officer			1
Standards Performance Analyst			
Total	33	31	2

The Regulator's staff is a team of experts with proven performance in the areas of responsibilities they cover.

This composition of engineering, economics, law and other experiences strengthens the confidence of an institution having clear strategies towards success in developing the energy sector in Kosovo.

2.3 Funding of the Regulator

The Regulator is funded from dedicated revenues collected from taxes of licensees pursuant to Article 24 of the Law on Energy Regulator.

The Regulator collects taxes for:

- Initial and annual licensing tax;
- Applications for issuance and modification of licenses;
- Issuance of Certificates of Origin;
- Reviewing of applications for authorization for construction of new capacities.

In accordance with the Law on Energy Regulator, all the above-mentioned taxes are dedicated revenues of the Regulator.

If it is deemed that the Regulator's dedicated revenues are insufficient to cover the total costs required for the effective performance of the obligations, the Regulator may request an additional budget allocation to cover the shortfall. Also in accordance with this Law, if the collected taxes exceed the provisions of the Regulator, they are deposited in the state budget.

3 ACTIVITIES OF THE ENERGY REGULATORY OFFICE

3.1 Licensing of energy activities

It is now known that no energy activity can be carried out in Kosovo without a license issued by the Energy Regulatory Office. All types of activities for which enterprises must be licensed are described in the legislation in force, more specifically in Article 28 of the Law on Energy Regulator. According to this Article (paragraph 2) and also according to Article 3 (paragraph 1) of the Rule for Licensing of Energy Activities in Kosovo (ERO Rule / No. 07/2017, dated 31.03.2017), Regulator has licensed the following activities: electricity production; thermal energy production; co-production of electricity and thermal energy; transmission of electricity, including operation of transmission system; distribution of electricity, including operation of distribution system; distribution of thermal energy; supply of electricity and thermal energy, including transit, import or export of electricity; wholesale supply (trading) of electricity supply; and operation of the electricity market

In addition to the aforementioned licenses, applicable laws allow for some energy activities without having to apply to the Regulator for a license, as these activities do not have a stringent impact on Kosovo's energy system. Activities that do not require a permit are as follows:

- production of electricity at the energy location, with a capacity not exceeding 5 MW;
- production of thermal energy from DHs for own consumption, or with a capacity not exceeding 1 MW;
- production of electricity for own consumption, where the production facility or electricity customers are not connected to the transmission or distribution system.

Since its establishment until now, the Regulator has licensed about seventy (70) enterprises for various energy activities; where about forty (40) still have active licenses.

During this year, the focus of the companies that have applied for licensing has been on licensing the production of electricity, mainly from renewable energy sources (water), electricity supply and extension of the license.

Unlike other years, for the first time this year no enterprise has applied to the Regulator for licensing of the activity of wholesale supply (trade) of electricity.

3.1.1 Licensing of electricity generation activity

According to Article 29 of the Law on Energy Regulator, power generation for generators with a capacity greater than 5 MW cannot be done without a license issued by the Regulator.

As a result, the Regulator continuously accepts applications for licensing of electricity generation activity (from lignite, wind, water, solar, etc.), which is worth mentioning that during this year, unlike other years, the Regulator has issued four (4) (temporary) licenses for electricity generation from hydropower plants, where the process of construction of these hydropower plants has also been led by the Regulator through the rule on authorization procedure for construction of new capacities. Also during this year an applicant has applied to the Regulator for electricity production from lignite (coal) and an applicant for extension of the license.

Enterprises that have been provided with a (temporary) license for electricity production, the license has been extended and those who are in the process of licensing the activity of electricity production, can be found in the table below.

Tab. 3.1 The licensed companies have had their licenses extended and are in the process of licensing their electricity generation activity

No.	Name of the Company	Description of licensed activity	License number	Address, headquarters of the licensee	License validity
1	"Hidroenergj" L.L.C. (HPP Lepenci 3)	Electricity generation (from water)	ZRRE/Li_63/18	Str. Dëshmorët e Kombit, P.N. Ferizaj, Republic of Kosovo	05.06.2019 - 04.06.2020 Temporary license
2	"KelKos Energy" SH.P.K (HPP Deçani)	Electricity generation (from water)	ZRRE/Li_49/16	Str. Demë Ali Pozhari, No. 41, 51000 Deçan, Republic of Kosovo	14.10.2019 - 13.10.2020 Temporary license
3	"KelKos Energy" SH.P.K (HPP Belaje)	Electricity generation (from water)	ZRRE/Li_50/16	Str. Demë Ali Pozhari, No. 41, 51000 Deçan, Republic of Kosovo	14.10.2019 - 13.10.2020 Temporary license
4	"KelKos Energy" SH.P.K (HPP Lumbardhi II)	Electricity generation (from water)	ZRRE/Li_64/18	Str. Demë Ali Pozhari, No. 41, 51000 Deçan, Republic of Kosovo	14.10.2019 - 13.10.2020 Temporary license
5	Kosovo Energy Corporation JSC (PP Kosova A)	Electricity generation (from lignite)	ZRRE/Li_05/17_A	Str. "Nëna Terezë" No 36, 10000 Prishtina, Republic of Kosovo	04.10.2019- 04.10.2020-License renewal
6	"ContourGlobal Kosovo" L.L.C.	Electricity generation (from lignite)	ZRRE/Li_66/19	Str. Anton Çeta, 5A, 10000 - Prishtina, Republic of Kosovo	in the process of licensing

Hydropower (Hidroregjioni) L.L.C. – has applied to the Regulator for electricity generation license from Lepenci 3 Hydropower Plant, on 20 December 2018, for installed capacity of **9.98 MW**.

The Regulator's Board on 5 June 2019, with decision V_1140_2019, has issued a temporary license to the company in question, obliging the company to bring the Integrated Environmental Permit to the Regulator within twelve (12) months from the date of issuing the decision.

Kelkos Energy L.L.C – this enterprise has applied to the regulator for licensing the activity of electricity production, for three (3) production units from:

- Deçan hydropower plant with a capacity of **8.06 MW**
- Belaje hydropower plant with a capacity of **9.8 MW** and
- Lumbardhi II hydropower plant with a capacity of **6.2 MW**

For the first two units it applied on 24 February 2016, while for the last unit it applied on 21 December 2018. In the absence of complete documentation, no decision was made to license this enterprise until 2019. Thus, the Board of the Regulator during this year, more specifically on 14 October 2019, by decision V_1182_2019, V_1183_2019, and V_1184_2019 has issued to the enterprise in question a temporary license for all three hydropower plants, obliging the enterprise to bring the Integrated Environmental Permit to the Regulator within twelve (12) months, within the deadline set in the decision, from the date of issuance of the decision.

The commissioning of these hydropower plants (Lepenci 3, Deçani, Belaje and Lumbardhi II), increases the production capacity in Kosovo from renewable resources (over 5MW) in total of **34.04MW**.

Kosovo Energy Corporation JSC The Generation Division, Kosova A Thermal Power Plant - this year, as well as other years, KEK has applied for extension of the license for production of electricity from lignite (coal) until 04.10.2022, while the same has been extended the license from the Board of Regulator for the period from 04.10.2019 to 04.10.2020.

With regard to the extension of the license, the duration of each license may be extended for a period of time not exceeding the relevant time period of the current license, meaning that the licensee manages to meet all the conditions and obligations of the license and has submitted a written request for extension of the current license.

Contour Global Kosovo L.L.C. – In addition to the application for energy production from renewable energy sources, the Regulator on 20.06.2019 has received an application with several supporting documents for energy production from lignite (coal) with an installed capacity of 500MW. The application is in the process of being reviewed and will be evaluated in accordance with applicable legislation.

3.1.2 Licensing of electricity supply activity

Unlike previous years, when the interest for licensing of this activity was much higher, during this year we have only one enterprise (Enerco LLC) which has applied on 5 March 2019 and on 16 April 2019 is licensed to supply electricity, despite this, has not yet provided any supply of electricity to customers.

Neither this nor seven (7) previously licensed enterprises (HEP Energy KS L.L.C., GSA ENERGJI L.L.C., FUTURE ENERGY TRADING AND EXCHANGE DYNAMICS L.L.C., JAHA COMPANY L.L.C.,) SharrCem L.L.C, and the Kosovo Energy Corporation JSC) except KESCO have not entered the market to supply customers with electricity. Therefore, the entire supply of customers in the country with electricity, even during 2019, has been done by KESC, the same as in previous years.

Tab. 3.2 Enterprises that are licensed for electricity supply activity during 2019.

No.	Name of the Company	Description of licensed activity	License number	Address, headquarters of the licensee	License validity
1	Enerco LLC.	Electricity supply	ZRRE/Li_65/19	Bregu i diellit, Hyzri Talla 11/4, Prishtina, Republic of Kosovo	16.04.2019-15.04.2024 license issuance

The duration of the supply license is determined depending on the financial situation of the applicant with a maximum duration of twenty-five (25) years, while in terms of the enterprise Enerco L.L.C the Board of the Regulator has issued a license for a period of five (5) years in accordance with Article 32 of the Law on Energy Regulators.

The Regulator decides on each license application, within sixty (60) calendar days, upon submission of the completed application.

It is important to note that during this year there was no application for licensing the activity of wholesale supply (trade) of electricity, so the trade of electricity was carried out by some enterprises that are licensed by the Energy Regulator and other enterprises, licensed to any of the contracting parties of the Energy Community. According to the Law on Electricity, licenses issued for the trade of electricity in other Contracting Parties of the Energy Community must be recognized in Kosovo. Such

licensed suppliers will be entitled to trade electricity without the need for an additional license. Traders and suppliers registered with another Party of the Energy Community have the right to participate in the electricity market, in accordance with the principle of reciprocity and in accordance with applicable market rules, balancing rules and fiscal rules.

3.2 Renewable Energy Sources (RES)

The applicable Law No. 05/L-081 on Energy has established the RES policy, which aims to promote the economic and sustainable exploitation of the local potentials of RES, in order to meet the needs for energy, increase the security of supply and environmental protection, which is an integral part of the Energy Strategy of the Republic of Kosovo.

For the purpose of implementing RES policies, the respective Ministry, according to the legislation in force, has determined with a special sub-legal act the energy targets of RES in accordance with requirements of relevant directive of the European Union.

Law No. 05/L-084 on the Energy Regulator has established that the construction of new generation capacities (RES), new systems for transmission and distribution of natural gas, including interconnectors, and direct electricity lines and direct pipelines for transmission of natural gas shall be undertaken in line with authorization procedures as described in this law, and shall be carried out by the Regulator, in line with objective, transparent and non-discriminatory criteria.

In order to fulfill the legal obligations to achieve the mandatory target for RES by 2020, the Ministry of Economic Development has issued Administrative Instruction no. 01/2013 and no. 05/2017 with which it has determined the annual and long-term energy targets by the RES.

The Administrative Instruction has determined that the mandatory RES target by 2020 is 25% of the gross final energy consumption as set out in Article 4 of the Decision No. D/2012/04/MC –EnC of the Ministerial Council of the Energy Community.

It is worth mentioning that Kosovo is a signatory party to the Treaty establishing the Energy Community, which was signed on 25 October 2005, ratified and entered into force on 1 July 2006 and began to be implemented on 1 July 2007. Based on this, Kosovo has taken legal obligations to fulfill all obligations related to the energy sector where it is foreseen the mandatory obligation to achieve the targets of RES by 2020.

Annex I of this Administrative Instruction 05/2017 has defined electricity capacity from renewable energy sources (MW), where the level of the targets set for renewable energy sources and admitted to the Support Scheme is as in the following table:

Tab. 3.3 Targets for RES capacities

Capacity of Electricity from RES					
Primary Energy Source	2016	2017	2018	2019	2020
Photovoltaic	6	7	8	9	30
Wind	1	61	115	129	150
Small HPPs	40	57	181	187	240
Biomass	6	8	10	12	20

3.2.1 Existing Support Scheme for Renewable Energy Sources

The Energy Regulatory Office (ERO), as an independent institution that regulates the energy sector in Kosovo, implements the authorization procedure for development of RES projects, issues licenses and conditions for the operation of these projects, and drafts Support Schemes to help their financing and realization.

The Rule on Support Scheme sets out the current principles of electricity support or subsidy generated by renewable energy sources which would otherwise not be able to compete in the wholesale market.

To be qualified for the Support Scheme, a RES generating facility must generate electricity from one of the primary renewable energy sources, must be located within the territory of Kosovo and must be equipped with new and unused generation facilities.

During the review of their application for admission, ERO refers to the mandatory specific target of 2020 technology set by the Ministry of Economic Development.

The Rule on Support Scheme for renewable energy generators also determines the maximum size of a single acceptable project for a scheme such as:

- 3 MW for PV,
- 14 MW for biomass,
- 35 MW for the wind and
- 10 MW for hydro

Currently, **the feed-in tariff is the only Support Scheme** that uses financial incentives to achieve RES targets. The criteria for obtaining this support exclude other types of financial incentives that will be used simultaneously for the same project. There are currently no incentives for tax deductions or import costs for renewable energy sources for electricity generation.

Kosovo, similar to most countries in the Southeast European Region (SEE), created its own support scheme based on the feed-in tariff. However, due to financial constraints and the lack of quick response to falling prices of RES technology, the efficiency of current support schemes has been called into question. There is a need to consider a return to market-based support schemes, mainly incentive premiums and competitive bidding/tender procedures (auctions), in order to increase cost-effectiveness and limit competitive distortions. This trend has been accelerated by EU rules on state aid that guides a gradual introduction of competitive bidding processes and provide for a gradual replacement of the feed-in tariff with incentive premiums, which will also be a mandatory approach for members of the Energy Community.

When considering a suitable support scheme for RES, four basic principles must be followed in determining the most suitable support scheme for RES: effectiveness, efficiency, practice and external effects of a support scheme.

Considering the certain benefits and disadvantages in different forms of RES support, incentive premiums and auctions are the most approved RES support mechanisms based on market and price.

RES support mechanisms that are not considered pricing-based mechanisms are also important to consider by policymakers, but are usually considered as something that complements pricing-based

mechanisms. Therefore, in order to achieve the planned goals for RES, a combination of supportive but complementary financial and non-financial mechanisms (i.e., policy instruments) must be gradually implemented to support the development and deployment of RES.

In order to set the right policy of the RES sector for Kosovo, the current phase of market liberalization must be taken into account. There are well-known limiting factors in countries with similar market conditions as in Kosovo; however, the general guidelines to follow when defining a support scheme are;

- Restrictions on Financial Support - Responsible decision makers should limit financial support to what is needed to ensure the competitiveness of RES generation in the market;
- Flexibility - RES support scheme should be able to react to declining technology costs;
- Integrity and transparency - decision makers should avoid any unannounced or retroactive changes;

Although auctions should provide greater efficiency and effectiveness in the RES sector, the following risks could potentially occur;

- Risk of unsuccessful tendering process. Every tender process takes a lot of time and costs significantly to organize and participate in such a process.
- The risk of failure to complete the project by the winning manufacturer can affect the effectiveness and failure to achieve mandatory targets.

The aforementioned risks can be mitigated by selecting the right elements of the auction design. One of the most important elements for mitigating the risk where incentive premiums, auctions and competitive bids are presented are the price restrictions at the highest and lowest, which are restrictions that do not allow either the premium or the price for electricity generated by the RES go above or below predefined values.

Auctions are generally not organized for small power plants due to the high cost of preparing documentation for bidding. For these manufacturers, an administrative approach to determining the feed-in tariff or incentive premium is recommended. Similarly, auctions are not quite suitable for markets without developed competition or where markets are dominated by a single entity.

In order to proceed with a new support scheme for RES based on competitive criteria, Kosovo authorities need to analyse all relevant aspects in order to determine an appropriate way to move forward in a gradual transformation towards market support mechanisms. To select the appropriate support mechanism and its elements, the authorities must review and eventually adjust the legal and regulatory framework. It is important to note that the introduction of the new mechanism should not have any impact on all current PPA contracts signed under the current support scheme.

Key facts that characterize the RES Support Scheme:

- Generators from RES sign the Power Purchase Agreement valid for 10-12 years, depending on the technology.
- Support through Promotional Fees is provided for a reliable and stress-regulated regulatory framework to support the additional cost of production by RES.
- RES generators have the right of priority in dispatch for all electricity generation along the entire validity of the PPA and are compensated for the delivered electricity.

- Generators from the RES accepted in the Support Scheme are responsible for only 25% of their unbalanced costs.

3.2.2 Promotion of electricity production by RES

Kosovo is one of the countries that has so far supported the entire financial support mechanism for renewable sources at the Energy Regulatory Office, which has created mechanisms of the RES Support Scheme based on the targets set by the Government of Kosovo for fulfilling the legal obligations it has received in relation to the European Commission. Thus, Kosovo had the obligatory target that by 2020, to achieve that 25% of domestic consumption is from RES. As a result, the Regulator has handled this obligation very carefully, creating appropriate and predictable mechanisms for the time and economic and social circumstances of Kosovo. The mechanisms created by the Regulator to support RES have proved to be quite effective, largely covering the targets in various technologies with investment applications, and from time to time has adapted to these mechanisms legal changes and conditions for doing business in Kosovo and region.

We can say that the energy sector, including renewable energy, remains one of the most attractive links for investment in Kosovo, thanks to the above mechanisms. As a result, the level of investment in RES has increased significantly in recent years, where only in 2019 it is estimated that about 35 million euros have been invested in generating capacity with 24.9 MW from water technology and 3.4 MW capacity installed with solar panels.

For the period 2013-2019, these production capacities have been invested by RES according to the technologies presented in the following table, which have been put into operation by the end of 2019.

Tab. 3.4 Installed capacities of RES according to technology

RES installed capacities 2013-2019	
RES technology	MW
Wind Turbines	33.75
Photovoltaic	10
Hydro Power Plant	50.02
Biomass	0
Total	93.77

Feed-in tariffs are a mechanism for encouraging investment in electricity generation from renewable sources, which are applied in developing countries, as well as in developed countries (EU, US and beyond.). Being an indispensable need to promote investment in RES, Kosovo has also adopted the Feed in Tariff as the main support mechanism.

The following table shows the feed-in tariffs for electricity production by RES, according to technologies.

Tab. 3.5 Feed-in tariffs of RES according to technology

Feed-in tariffs applicable to RES	
RES	€/MWh
Wind	85.00
Photovoltaic	136.40
Small Hydro Power Plants	67.47
Biomass	71.30

Implementation of the Support Scheme of the Feed-in Tariff is made possible through the RES Fund managed by the Market Operator. The financial value of the fund foreseen for 2019 has been around 13.74 million Euros. According to the investment trend in RES, the RES fund is expected to increase in the coming years.

Since the targets of RES under international obligations and the Administrative Instruction of the Government of Kosovo for promotion of RES are limited, then the Regulator has taken care to create a regulatory framework for all potential investors to invest in RES technology outside the Support Scheme. This framework guarantees you priority in energy dispatching and market prices, to all generators outside the support scheme.

The Regulator has also developed a Support Scheme for RES self-consumption generators. The main purpose of this scheme is to encourage customers to invest in micro-generators through which they would cover part of their consumption.

3.3 Authorization - construction of new capacities

ERO, during this year has continued with the implementation of the authorization procedure, the review of applications for the issuance of authorization for construction of new generation capacities based on Renewable Energy Sources (RES), for companies that have applied for authorization.

In the framework of fulfilling the obligations set forth in the legislation in force, ERO has issued Final Authorizations for Construction of Generating Capacities, whereby each applicant in order to obtain the authorization was subject to regularity analysis and correctness of legal, administrative, technical, financial and environmental documentation, as well as obtaining relevant permits for water use in case of hydropower plant, land use rights, technical solutions of the connection and environmental consent, issued by relevant institutions in accordance with the activity that entities have requested for obtaining a Final Authorization for allowing construction of new generating capacity from RES.

During 2019, ERO has received 17 applications from various legal entities for obtaining authorization for construction of new generating capacities from RES. 2 requests for conversion of Preliminary Authorization to Final Authorization from wind energy sources and biomass have been received and reviewed. During this year there have been requests for Modification of Final Authorization.

3.3.1 Issuance of preliminary authorization

ERO during this year has reviewed and evaluated the applications received by legal entities and that they have proven their suitability for construction of new facilities, but have not yet met the

requirements arising from the legislation in force, has issued Preliminary Authorizations for completing applications and for obtaining Final Authorization for construction of new generating capacities.

The following table shows the number of Preliminary Authorizations issued by ERO Board according to various sources during 2019.

Tab. 3.6 Preliminary authorizations of RES

RES preliminary authorizations	No. of decisions issued
Solar energy	22
Total	22

ERO has issued Preliminary Authorizations for 22 projects from solar/photovoltaic panels with an installed capacity of about 66 MW, which have been considered by decision as "pending" applications to be admitted to the Support Scheme.

Regarding the applicants who have met the requirements and criteria set for the issuance of Preliminary Authorization, during this year the ERO Board has issued twenty-two (22) preliminary authorizations ("pending"). The following are the companies to which the Preliminary Authorization has been issued (see Table 3.7 below);

Tab. 3.7 Companies that have been issued a Decision for Preliminary Authorization

No.	Legal entity	Facility	Location	Installed capacity	Date of issuance of the Preliminary Authorization
1	KPOWER L.L.C.	Solar	KSOL project -Sverrk- Peja	33 MW	28-Jan-19
2	EDK L.L.C.	Solar	SUNPOWER 1 project – Sverrk Peja	3 MW	28-Jan-19
3	EDK L.L.C.	Solar	SUNPOWER 2 project – Sverrk Peja	3 MW	28-Jan-19
4	JAHA EXRA BETON L.L.C.	Solar	DUKASONNE 1 project - Sverrk Peja	3 MW	28-Jan-19
5	JAHA EXRA BETON L.L.C.	Solar	DUKASONNE 2 project - Sverrk Peja	3 MW	28-Jan-19
6	PERLAT L.L.C.	Solar	ALPHA POWER project - Sverrk Peja	3 MW	28-Jan-19
7	EDK L.L.C.	Solar	SUNPOWER 3 project – Sverrk Peja	3 MW	28-Jan-19
8	N.T.SH. ELING	Solar	SOLAR project - Llabjan Peja	3 MW	28-Jan-19
9	D-ENERGY L.L.C.	Solar	D-ENERGY 1 project, Peja	3 MW	5-Jun-19
10	D-ENERGY L.L.C.	Solar	D-ENERGY 2 project, Peja	3 MW	5-Jun-19
11	D-ENERGY L.L.C.	Solar	D-ENERGY 1 project, Peja	3 MW	5-Jun-19
12	BP SOLAR L.L.C.	Solar	SOLAR 1 project, Peja	3 MW	5-Jun-19
13	BP SOLAR L.L.C.	Solar	SOLAR 1 project, Peja	3 MW	5-Jun-19
14	BP SOLAR L.L.C.	Solar	SOLAR 1 project, Peja	3 MW	5-Jun-19
15	ALPHA SOLAR L.L.C.	Solar	ALPHA SOLAR 1 project, Peja	3 MW	5-Jun-19
16	ALPHA SOLAR L.L.C.	Solar	ALPHA SOLAR 2 project, Peja	3 MW	5-Jun-19
17	ALPHA SOLAR L.L.C.	Solar	ALPHA SOLAR 3 project, Peja	3 MW	5-Jun-19
18	SUN ENERGY L.L.C.	Solar	SUN ENERGY 1 project, Sverrk Peja	3 MW	5-Jun-19
19	SUN ENERGY L.L.C.	Solar	SUN ENERGY 2 project, Sverrk Peja	3 MW	5-Jun-19
20	SUN ENERGY L.L.C.	Solar	SUN ENERGY 3 project, Sverrk Peja	3 MW	5-Jun-19
21	SUN ENERGY L.L.C.	Solar	SUN ENERGY 4 project, Sverrk Peja	3 MW	5-Jun-19
22	SUN ENERGY L.L.C.	Solar	SUN ENERGY 5 project, Sverrk Peja	3 MW	5-Jun-19

Compared to 2018, where ERO had issued seven (13) Preliminary Authorizations, during 2019, twenty-two (22) decisions have been issued for Preliminary Authorizations with a total installed capacity of 66 MW, which have been outside the limits of RES, and are considered "pending applications", according to the legal provisions of Rule no. 10/2017 on the Support Scheme for RES generators.

3.3.2 Applications under review by ERO

ERO, during this year has received applications for obtaining authorization for construction of new generation capacities, which are in the phase of completion of applications. The following is a list of applications that are being reviewed.

Tab. 3.8 Companies that are in the process of reviewing the decision for preliminary authorization

No.	Legal entity	Facility	Location	Installed capacity	Application date
1	ECODRI L.L.C.	Hydro Power Plant	HPP ECODRI-me digë), Prizren	9.56 MW	18-Jul-19
2	SHARR PLANINA VODE L.L.C.	Hydro Power Plant	HPP SHARR PLLANINA 1, Dragash	1.65 MW	29-Jul-19
3	SHARR PLANINA VODE L.L.C.	Hydro Power Plant	HPP SHARR PLLANINA 2, Dragash	2.2 MW	29-Jul-19

ERO has evaluated the applications for issuing authorizations for construction of new generating capacities, respecting all legal procedures and criteria for meeting the targets of RES, defined by the instructions in force, and upon completion, will issue preliminary authorizations for the aforementioned applicants.

3.3.3 Termination of preliminary authorization (final)

ERO during 2019 has reviewed the applications for issuance of the Final Authorization, together with the completed documentation for conversion of the decision on the notice for preliminary authorization to the final Authorization for construction.

The following table shows the number of Final Authorizations issued by the ERO Board according to various sources during 2019.

Tab. 3.8 Final authorizations of RES

RES final authorizations	No. of decisions issued
Wind turbines	1
Biomass	1
Total	2

For construction of new generating capacities by Wind Turbines one Final Authorization was issued and one other Final Authorization has been issued for construction of generating capacities by Biomass with a total installed capacity of 12.2 MW, of which:

- 1 authorization from Wind Turbines with a capacity of 11 MW
- 1 authorization from Biomass with a capacity of 1.2 MW

The following table presents the legal entities to which the Final Authorization for Construction of New Generating Capacities has been issued (see the table below).

Tab. 3.9 Companies that have been issued the final authorization for construction

No.	Legal entity	Facility	Location	Installed capacity	Date of issuance of the Final Authorization
1	NP NGROHTORJA E QYTETIT SH.A. GJAKOVA	Biomass	Rezina, Gjakova	1.2 MW	27-Nov-19
2	BOND – COM ENERGY POINT L.L.C.	Wind turbines	Wind Park – BUDAKOVA, Suhareka	11 MW	26-Dec-19

The above-mentioned projects are expected to be realized within the period of deadlines determined according to the dynamic plan of realization of the projects in accordance with the conditions of the Authorization.

3.3.4 Final Authorization Modification

ERO during this year has accepted the request for Modification of Final Authorization for the construction of new generating capacities by RES. Such requests after completion with the relevant evidence issued by the relevant Institutions in the Republic of Kosovo have been evaluated and

reviewed by the ERO Board, in accordance with the legal provisions of the Rule on authorization procedure.

The following table presents the legal entities that have been allowed to modify the Final Authorization for the installed capacities for the production of electricity by the RES.

Tab. 3.10 Companies whose final authorization has been modified

No.	Legal entity	Facility	Location	Installed capacity	Date of Modification of the Final Authorization
1	KelKos Energy SH.P.K	Hydro Power Plant	HPP Lumbardhi II.	6.2 MW	28-Mar-19
2	SOWI KOSOVO L.L.C.	Wind turbines	WIND PARK SELAC 1	34.47 MW	10-Jul-19
3	SOWI KOSOVO L.L.C.	Wind turbines	WIND PARK SELAC 2	34.47 MW	10-Jul-19
4	SOWI KOSOVO L.L.C.	Wind turbines	WIND PARK SELAC 3	34.47 MW	10-Jul-19

Modification of the final authorization of KelKos Energy LLC, has been requested for HP Lumbardhi II Hydropower Plant for the installed capacity of 5.5 MW, authorized by Decision V-568-2013 of 24 October 2013, and modified by Decision V-1122-2019 of 28 March 2019 with an installed capacity of 6.2 MW, municipality of Deçan, meeting environmental and water requirement. While the Modification of Final Authorization according to Decisions V-980-2018, V_981_2018 and V_982_2018 dated 13 June 2018 issued to the company SOWI KOSOVO L.L.C. from the initial installed capacity of 34.5 MW to the installed capacity of 34.47 MW and the reduction of the number of turbines from ten (10) to nine (9) turbines is allowed with Decisions V-1164-2019, V_1165_2019 and V_1166_2019 dated 10 July 2019 in compliance with Construction Permits issued by MESP. These Modifications are allowed in accordance with the criteria and legal requirements of the legislation in force.

3.3.5 Projects under construction according to Final Authorization

Projects which are being built according to the dynamic implementation plan and according to the deadlines set by Regulation no. 11/2017 on the Authorization Procedure, there are four (4) projects from the Wind Turbines where 103.4 MW with a total of twenty-seven (27) turbines, in the Wind Park in Bajgora of the Municipality of Mitrovica, and the project Wind Park Budakova with a capacity of 11 MW with a total of three (3) turbines are being built in Budakova, Suhareka. Also, in the process of construction are some small projects from hydropower plants where according to the dynamics of works are expected to be realized in the coming years, as well as the first project from Biomass with a capacity of 1.2 MW of electricity and 15 MW of thermal energy which will be implemented by NP District Heating - Gjakova, a project funded by the European Commission.

3.3.6 Operation of generators by RES

During this year, after the finalization of the projects according to the Authorization by the ERO Board, and after the technical acceptance, seven (7) projects have entered into commercial operation, with a total installed capacity of 28.3 MW.

The following table shows the projects that have entered into commercial operation for the production of electricity from RES.

Tab. 3.11 Companies that have entered the operation

No.	Legal entity	Facility	Location	Installed capacity	Date of entry into operation
1	N.T. SH. ELING	Solar	Llabjan, Peja	0.4 MW	23-Mar-19
2	EUROKOS JH L.L.C.	Hydro Power Plant	HPP Brodi 3- Dragash	4.7 MW	8-May-19
3	N.T.N. RENELUAL TAHIRI L.L.C.	Hydro Power Plant	HPP Orqusha	4 MW	4-Jun-19
4	HIDROENERGJI L.L.C.	Hydro Power Plant	HPP Lepenci 3- Kaçanik	9.98 MW	19-Jun-19
5	SOLAR GREEN ENERGY L.L.C.	Solar	Novosellë, Kamencia,	3 MW	18-Sep-19
6	KELKOS ENERGY L.L.C.	Hydro Power Plant	HPP Lumbardhi II - Deçan	6.2 MW	31-Dec-19



Fig. 3.1 View from the building of HP Lepenci 3, Kaçanik



Fig. 3.2 View from Solar Park / photovoltaic, Novosele, Kamenica

Hydraulic projects and solar/photovoltaic panels are in commercial operation, Power Purchase Agreements for the production of electricity from RES have been finalized, agreements have been signed for a period of ten (10) years for energy production from hydropower plants and twelve (12) years for energy production from solar/photovoltaic panels with KOSTT/OT.

3.4 Self-consumption generators

ERO, during this year has also addressed the requests/applications for generators for obtaining the status of customer producer for self-consumption, which after meeting the legal requirements in accordance with the Authorization Rule and Support Scheme, are allowed to continue with the construction of self-consumption generating capacities.

The following table shows the number of decisions issued by the ERO Board, for self-consumption generators during 2019.

Tab. 3.12 Authorizations for self-consumption

Decisions for Self-consumption	No. of decisions issued
Solar	20
Total	20

The following table presents the legal entities that have been issued the decision for authorization for the construction of generators for self-consumption.

Tab. 3.13 Companies that have been issued a decision to construct self-consumption generators

No.	Legal entity	Facility	Location	Installed capacity	Date of issuance of the Decision
1	IADK	Solar	Sfaraçak I Ultë, Vushtrri	10 kW	20-Jan-19
2	Physical Person	Solar	Gjakova	4.88 kW	20-Jan-19
3	Physical Person	Solar	Prishtina	5 kW	16-Apr-19
4	Physical Person	Solar	Ceceli/Vushtrri	5 kW	5-Jun-19
5	NTSH TIK –TAC –SERVICE&SUPPLY	Solar	Shkugza/Gjakova	4.8 kW	5-Jun-19
6	Physical Person	Solar	Leshan/Peja	5 kW	5-Jun-19
7	DYZI BERRY FRUITS L.L.C.	Solar	Dyz/Podujeva	25 kW	05 June 219
8	BESIANA – G L.L.C.	Solar	Izvor/Novobërda	5 kW	5-Jun-19
9	BESIANA – G L.L.C.	Solar	Prelez/Ferizaj	69 kW	10-Jul-19
10	Physical Person	Solar	Orllat/Drenas	3 kW	28-Aug-19
11	Physical Person	Solar	Zllatar/Prishtina	5 kW	28-Aug-19
12	N.T.P. AMG	Solar	Balloç/Podujeva	30 kW	14-Oct-19
13	DONI FRUITS L.L.C.	Solar	Z. Industriale/Shtime	49.92 kW	14-Oct-19
14	OBRICO L.L.C.	Solar	Graqanica	30 kW	14-Oct-19
15	Physical Person	Solar	Prishtina	9.9 kW	14-Oct-19
16	BALLKAN PETROL L.L.C.	Solar	Gërlaç/Ferizaj	100 kW	27-Nov-19
17	AGROPRODUKT L.L.C.	Solar	Sine/Istog	64 kW	27-Nov-19
18	Physical Person	Solar	Dujak/Gjakova	5 kW	27-Nov-19
19	Physical Person	Solar	Pagarush/Malishevë	2 kW	27-Nov-19
20	DRENA L.L.C.	Solar	Skenderaj	75 kW	26-Dec-19

The above-mentioned projects are expected to be realized within the defined period according to the dynamic plan of realization of the projects in accordance with the technical conditions of connection.

ERO has also received other requests from natural and legal persons, which are in different stages of completion and according to the procedures in force, after completion will be allowed in the construction of new generating capacities by generators for self-consumption.

3.5 Harmonization of Power Purchase Agreements for RES

ERO, during 2019 at the request of the European Bank for Reconstruction and Development (EBRD) and other international financial institutions, has reviewed the Power Purchase Agreement for generators of RES, where after analysing, evaluating and consulting with all interested parties and institutions of the country, has approved this Agreement, which in November 2019 was signed

between EBRD/SOW/KOSTT for financing and implementation of the construction project of three (3) generators from RES/wind, with an installed capacity of 105MW, which project is considered one of the largest in the Balkans and is funded by the EBRD.

ERO, during 2019, has drafted and approved the Power Purchase Agreement for self-consumption generators. This completes the entire regulatory/legal framework for handling these self-consumption generators or otherwise known as prosumers, and thus meets the last criteria of the Rule on Support Scheme for RES, and the handling of energy produced by self-consumption generators.

3.6 Monitoring of energy enterprises

One of the main competencies of the Energy Regulator regarding the supervision/monitoring of energy enterprises are provided by the Law on Energy Regulator, especially with Chapter XII, the Law on Electricity and secondary legislation.

Thus, the Regulator, as in other years, this year as well, has continued to monitor companies licensed for energy activities, ensuring whether enterprises are operating in accordance with the terms of the license, enforcement of rules, individual acts and other decisions issued by the regulator or other legislation in force. Monitoring is done by requesting reports and data from the licensees, holding meetings, as well as visiting (monitoring) the licensed, with or without prior notice.

Even during 2019, the Regulator has monitored licensed energy enterprises, especially those over 5 MW, but also monitored enterprises that are in the process of construction through the authorization procedure for building new capacity.

Detailed reports on the monitoring of energy enterprises are published on the Regulator's website.

3.6.1 Electricity market monitoring

Despite the liberalization of the electricity market, for the smooth running and functioning and avoidance of irregularities and discrimination of the participants in the energy sector, it is necessary to constantly monitor the energy market. The regulator is responsible for monitoring the operation of energy markets.

The regulator continuously monitors the energy market in general through daily, monthly reports, etc., according to legal requirements. This monitoring includes the production, demand and losses of electricity according to different categories, as well as imports and exports of electricity. Internal quartile reports are prepared for the findings of these monitoring, while at the end of the year all these are summarized in the annual ERO report, which is published on the ERO website.

3.6.2 Monitoring the construction of new generating capacities

The Regulator, during this year, has monitored the legal entities that are equipped with Final Authorization for the construction of generating capacities, which are in different stages of construction.

ERO has monitored the works that are being carried out by the company HIDROENERGJI LLC, for the project HP Lepenci 3 Authorized by Decision V-755-2016, for the construction of new generating

capacities by the Hydropower Plant, with an installed capacity of 9.98 MW, CZ Kaçanik, Municipality of Kaçanik. HPP Lepenci 3 project has been completed and is in commercial operation.

HPP Vica Hydropower Plant, according to the dynamics of the works carried out in the field, is expected to be finalized in early 2019, while the projects HPP Shtërpca and HPP Sharri are in different stages of construction.

ERO has monitored the works that are being carried out by the company HIDROENERGJI LLC, for the project HPP Lepenci 1 Authorized by Decision V-754-2016, for the construction of new generating capacities by the Hydropower Plant, with an installed capacity of 9.98 MW, CZ Uji i Tharët, Municipality of Hani i Elezit. This project has been delayed due to the construction of the R6 Highway Pristina - Hani i Elezit.

ERO has monitored the works that are being carried out by the company EUROKOS JH LLC, for the project HPP Brodi 3 Authorized by Decision V-870-2016, for construction of new generating capacities from the Hydropower Plant, with an installed capacity of 4.7 MW, CZ Kukalane, Municipality of Dragash. The HPP Brodi 3 project has been completed and is in commercial operation.

ERO has monitored the works that are being carried out by the company N.T.N. RENELUAL TAHIRI L.L.C., for the HPP Orqusha project, Authorized by Decision V-891-2017, for the construction of new generating capacities by the Hydropower Plant, with an installed capacity of 4 MW, CZ Orqusha, Dragash/Dragash Municipality. This project has been finalized and has entered into commercial operation.

ERO has monitored the works that are being carried out by Matkos Group LLC, for HPP Vica, HPP Shtërpca and HPP Sharri projects, Authorized by Decisions V-640-2014, V-759-2016 and V-760-2016, for construction of new generating capacities from Hydropower Plants, with a total installed capacity of three (3) projects of 16 MW, CZ Shtërpce, Municipality of Shtërpce. These projects are in different stages of realization.

ERO has monitored the works that are being carried out by the company SOLAR GREEN ENERGY LLC, for the project Authorized by Decision V-838-2016, for the construction of new generating capacities from solar/photovoltaic panels, with an installed capacity of 3 MW, CZ Novosele, and Municipality of Kamenica. This project has been finalized and has entered into commercial operation.

ERO has also monitored the works in the implementation of projects by the company SOWI KOSOVO L.L.C. for Wind Park project SELAC1, SELAC 2 and SELAC 3, authorized by Decisions V-980-2018, V_981_2018 and V_982_2018 dated 13 June 2018, where according to the dynamic plan it is expected to install twenty-seven (27) turbines for the production of electricity from the wind.

Also, ERO has monitored other projects that are being implemented according to the decisions on the Final Authorizations, which are in different stages of construction according to the legal deadlines given with the respective decisions. Their monitoring has been carried out continuously depending on the requirements that have emerged during their implementation.

ERO will continue to monitor the construction of new generating capacities from Renewable Energy Sources, respecting all legal procedures and criteria set by applicable law.

3.6.3 Monitoring according to the Reporting Manual in the Energy Sector

According to this manual, licensed energy companies have sent to the Regulator immediate, quarterly, or annual reports, depending on the requirements described in this handbook or other requirements of the Regulator. For some articles of the license, of particular importance, i.e. violation of the license conditions that may have a serious impact on government policies, customers or the cost of compensation, the licensee must immediately notify the Regulator. In the event that such notification is not made in time, the Regulator has the right to impose administrative measures or fines in accordance with the Rules of Administrative Measures and Fines.

Taking into account the reports sent during 2019, the regulator has not imposed any administrative measures or fines for licensees.

In the following, some of the monitoring carried out by the Regulator for energy enterprises during 2019 are presented in brief.

3.6.4 On-site monitoring of the Distribution System Operator Compliance Program (KEDS) for 2018

This program has been in force since 2015 (V_750_2015), which is approved by the Board of the Regulator. Every year, the KEDS Compliance Officer has reported to the Regulator regarding the fulfillment of the obligations set out in this program. So far, there has been no need to impose measures or fines on the licensee in connection with the implementation of this program. However, for its better functioning, the Regulator during the monitoring of this program during 2019, has requested from KEDS that this program be modified and approximated with the current legislation, hence, KEDS has sent this modified program, which is expected to be approved by the Board of the Regulator during 2020.

3.6.5 Monitoring of capital investments in KOSTT and KEDS for 2018

The safety of electricity supply and its quality depend on the level of operating and capital costs. For this purpose, ERO during the regulatory periods allows a certain level of capital investments based on planned projects. To see how such projects have been implemented, ERO, within its responsibilities and competencies, made the necessary monitoring. In this context, through the decision VB_114_2018 of the ERO board, the working group for monitoring the capital investments of the licensees KOSTT and KEDS was established.

To carry out this process, the monitoring group through written communications and field visits has focused on monitoring the procedural, technical and financial aspect. The methodology used for the realization of this monitoring has been done by selecting projects according to coincidence which are of different natures. For this purpose, the working group has requested from the licensees the files of the respective projects.

After reviewing and analysing the selected projects, the monitoring group has issued results which by nature are measurable (quantitative) and qualitative. In general, we can say that after analyzing the files and field visits, the licensee KOSTT performed the procedural and technical process in accordance with the general technical and procedural requirements and provided evidence for the

selected projects, while the licensee KEDS explained technical and procedural process but did not provide sufficient evidence.

In accordance with the findings of the monitoring report, the ERO Board made the notification of non-compliance by notifying the parties of non-compliance with the regulatory framework and issued remarks on improvement.

Details from the capital investment monitoring report for KOSTT and KEDS for 2018 can be found in the report published on the ERO website on the following link:

http://ero-ks.org/2019/Raportet/Monitorimi%20i%20investimeve%20kapitale%20KOSTT%20dhe%20KEDS_Qershor%202019.pdf

3.6.6 Monitoring the provision of customer service by KEDS and KESCO

The Regulator in accordance with the legal provisions given in the Law on Energy Regulator during 2019 has monitored the complaints and other issues related to the field of customer protection for the Supplier - KESCO and the Distribution System Operator - KEDS. The activities undertaken by the Regulator during the monitoring of the licensees KESCO and KEDS regarding customer complaints and other areas in customer protection are:

1. Providing data in the field of providing services to customers by the Supplier - KESCO and the Distribution System Operator - KEDS;
2. Visits of the working group of the Regulator in three districts: Pristina, Ferizaj and Mitrovica;
3. Providing data (samples) from the scene in the aforementioned districts;
4. Analysis of all data provided by KESCO and KEDS;
5. Statements derived from data provided by KESCO and KEDS.

The Working Group of the Regulator, based on the data and information received by KESCO and KEDS, has prepared the Final Report on the provision of customer service by KEDS and KESCO for the period January - December 2018, which describes in detail all the processes related to the provided KEDS and KESCO services.

In the Customer Services Report by KEDS and KESCO for the period January - December 2018, these areas were monitored:

- New connections and Electricity Consents;
- Replacement of electric meters;
- Implementation of disconnections and reconnections;
- Implementation of the procedure for identification and prevention of unauthorized use of electricity;
- Customer reading;
- Customer complaints.

In the Final Report on the provision of customer service by KEDS and KESCO, in addition to the analysis of data and processes obtained by both licensees, also presented the findings for each area of monitoring, and presented concrete recommendations for the licensees KEDS and KESCO related to improving customer service delivery.

ERO recommendations for KESCO and KEDS are as follows;

a) New Connections and Electricity Consents

- Points 7 and 8 given in the Electricity Consent by KEDS, which relate to the operation, maintenance, billing of customers, as well as the delivery of energy facilities, must be unifying for all applicants and be in accordance with the legal provisions of the primary and secondary legislation.
- KEDS must compensate all customers who have been charged with Electricity Consent for the payment of the metering group or even the placement of the metering group by the customer himself, because according to Article 54 of the Law on Electricity: "Measuring devices for measuring electricity are property of the Transmission System Operator and the Distribution System Operator, as defined in the Energy Law".

b) Replacement of electric meters

- Customer requests related to the review of meters, i.e. the accuracy of meter measurement, must be respected by KEDS and they must be made in accordance with the Metering Code;
- No response related to customer complaints regarding the suspicion of measuring the electricity consumption of the electricity meter should be issued by KESCO without reviewing the accuracy of that electricity meter first.

c) Customer disconnections and reconnections

- KEDS should not disconnect customers in any case, for the disputed values as defined in Article 17 of the Regulation for disconnection and reconnection of customers in the energy sector
- KEDS must submit each official record to the customer at the residential facility.

d) Unauthorized use of electricity

- KESCO / KEDS instructs that in the case of new connections, the initiation of unauthorized use of electricity should be determined based on the customer's request and efforts should be made to provide information on the duration of the calculation of unauthorized use.
- KEDS is instructed to continue to advance the training of authorized workers for the inspection of metering points for the method of completion, as well as the content of inspection/control minutes in order to present as accurately and clearly the factual situation and measures undertaken during the inspection, otherwise such minutes may be considered invalid.

e) Customer complaints

- KESCO and KEDS must comply with Article 6, paragraph 4, of the Regulation on Resolution of Complaints and Disputes in the Energy Sector, and send for review and approval to ERO their internal procedure for handling customer complaints harmonized according to the above-given Regulation.

- KESCO should improve responses to customer complaints, which responses should be designed in accordance with Article 10 of the Rule on Resolution of Complaints and Disputes in the Energy Sector; to respect the legal deadlines in accordance with Article 9, paragraph 3; as well as to comply with the provision of Article 12, paragraph 4 of the above-mentioned rule, which concerns the provision of documents for the customer.
- KEDS for customer complaints regarding electricity consents and complaints for network access / connection, to issue a written response to customers / applicants for connection in accordance with Article 10 of the Rule on Resolution of Complaints and Disputes in Energy Sector.

The Board of the Regulator in the session dated on 28.08.2019 has reviewed the Report on the provision of services for customers by KEDS and KESCO for the period January - December 2018, together with the recommendations presented in the report, and has decided to notify the operators of the monitoring findings and to proceed with the procedures provided in the Monitoring Program.

3.6.7 Non-compliance notice (Board findings and decisions regarding enterprise monitoring)

The Board of the Regulator in its meeting held on 28.08.2019, based on the proven findings and recommendations presented in the monitoring reports of the working groups of the Regulator, as well as in accordance with the provisions of the Law on Energy Regulator, has decided to oblige the licensees KEDS and KESCO to inform the Board within 30 days from the date of receipt of this notice regarding the actions that will be taken to improve the irregularities in the monitoring reports, and the actions that will be taken for non-repetition of ascertained irregularities.

Based on the notification of non-compliance of the Regulator, the licensees KEDS and KESCO on 07.10.2019 responded to the Regulator regarding the notification of non-compliance, respectively the licensee for each point of notification has provided the necessary clarifications.

The Board of the Regulator in the session held on 27.11.2019 has issued a decision where it has obliged KEDS to immediately stop performing activities that cause violation of the conditions and obligations provided by Article 11 of the DSO License, and has obliged KEDS that within 30 (thirty) days from the date of receipt or publication of the Decision, to compensate all customers who have been charged with the Energy Consent for the payment of the measuring group.

3.6.8 Monitoring of thermal energy enterprises

As monitoring is one of the regular activities undertaken continuously by ERO, in 2019 the realizations and performance in the 2018/2019 season of the enterprises DH Termokos and DH Gjakova were monitored. Monitoring of realizations has included:

- Energy balance: production and supply of thermal energy as well as network losses;
- Realization of revenues (billing and collection) and operating costs;
- Realization of capital costs - specifically of new allowed investments;
- New connections and customer supply contracts;
- Unauthorized use and disconnections; and

- Customer complaints and requests and their addressing by the respective enterprises;

From the analysis of data and information collected during the monitoring, the monitoring reports of the realizations in the 2018/2019 season for DH Termokos and DH Gjakova were drafted, which were reviewed by the ERO Board in the session of 28 August 2019. These reports have described the assessments and findings for the implementation of each monitoring component and relevant recommendations were also provided.

3.7 Court Disputes

During the reporting year, several ERO Decisions were challenged in the Basic Courts, Department for Administrative Affairs, and which are expected to be reviewed and decided during 2020 by the competent Courts. ERO's challenged decisions are mainly related to customer complaints, while one of the challenged decisions is related to the setting of the feed-in tariff for electricity that will be produced by photovoltaic/solar panels.

In the next Annual ERO Report, the course of these disputes will be reported in detail.

3.8 Electricity and Thermal Energy Annual Balance

According to the Law on Energy (No. 05 / L-081), ERO is responsible for approving energy balances, which include annual and long-term (10-year) balance sheets of electricity, thermal energy, and natural gas. In this sense, the legal responsibility of ERO lies in defining the Methodology, rules and procedures for the preparation and approval of energy balances. Also, according to the law, the obligations of the system operators for the preparation of these balances are determined. Annual balance sheets must be approved by ERO separately and then summarized as a total for electricity, thermal energy and natural gas and published on the website.

Based on the legal requirements and the Rule and methodology for drafting energy balances, in the session of 26 December 2019, it approved the following Annual Balances:

- Annual Balance of Electricity 2020;
- Annual Balances of Thermal Energy of DH Termokos and DH Gjakova 2020;

Since Kosovo does not have an organized natural gas system, the relevant balances for natural gas have not been prepared.

These documents were drafted in accordance with Law no. 05 / L-081 on Energy (Article 8), and the Methodology on Preparation of Electricity Balances and contain:

- a) annual and long-term production planning of electricity and thermal energy;
- b) forecast of import and export of electricity;
- c) consumption and losses in electricity / thermal transmission and distribution networks.

The purpose of these documents is to inform all interested parties about the forecast of energy demand for 2020. The documents are published on the ERO website www.ero-ks.org.

3.9 Activities of the Regulator in the Area of Price Regulation

3.9.1 Tariff review

The Energy Regulatory Office (ERO) based on the Law on Energy Regulator and Rule on Maximum Allowed Revenues (MAR), within the given competencies is the only authority responsible for setting tariffs for regulated activities and those that have the obligation of public service in the energy sector.

In this context, one of the main tasks of ERO during 2019 has been the review of licensed applications for allowed revenues and tariffs in the electricity sector, including transmission, distribution, wholesale energy purchase and power supply activities for customers with universal services, respectively tariffs for regulated customers. ERO has assessed the allowed revenues and tariffs through the analysis of technical, economic and financial indicators presented in the applications of the licensees.

ERO during 2018 has conducted the periodic review for the period 1 April 2018 to 31 March 2019, where the Maximum Allowed Revenues (MAR) of the licensees has been determined: Transmission System Operator-Market Operator (TSO / MO-KOSTT), Distribution System Operator (DSO-KEDS) and one-year period for the Universal Service Supplier (USS-KESCO). Based on the revenues set during the periodic review, ERO has carried out regular revenue adjustments, in March 2019, while in April 2019 it has determined the fees for regulated electricity services.

Review of applications for revenues and fees regulated in the electricity sector has included: wholesale energy purchasing activities by local generators, electricity imports, electricity transmission activity, electricity distribution activity and the universal service supplier (USS) activity. In this tariff review, ERO has analysed the data for 2018, which it has adapted to those of the relevant tariff year 2019.

This whole review process has gone through public consultation (meetings and publication of documents) as follows:

- The Regulator in December 2018 has initiated the tariff review for 2019;
- Consultation Paper on Maximum Allowed Revenues, Periodic Review for DSO, published in March 2019;
- Consultation Paper on Maximum Allowed Revenues of the Universal Service Supplier (KESCO), published in March 2019;
- Final Report on Maximum Allowed Revenues TSO/MO - Responses to Comments, published in April 2019;
- Final Report on Maximum Allowed Revenues DSO - Responses to Comments, published in April 2019;
- Final Report on Maximum Allowed Revenues of the Universal Service Supplier - Responses to Comments, published in April 2019.

3.9.2 Energy purchases in the wholesale market

Production prices for Public Generators (KEK JSC) are deregulated from 1 April 2017, but this energy will be offered in the wholesale energy market, with priority for the Universal Service Supplier. After determining the necessary quantities for the supply in order to cover the customer requirements of the Universal Service Supplier, the calculation of other costs for the purchase of energy in the wholesale market is done. In accordance with the Rule on USS Revenues, the Universal Service Supplier is obliged to provide electricity in a transparent, competitive and efficient manner. The Universal Service Supplier must demonstrate that the projected electricity prices are reasonable, in line with the historical and projected prices in the wholesale market.

Kosovo, as a signatory to the Energy Community Treaty, has committed to implementing the third EU energy package and is implementing them. ERO based on the Guideline on Market Liberalization and Market Design is developing the competitive market. By opening up the market, it is possible to increase competition in the wholesale and retail market. This enables customers to benefit from more competitive prices.

In determining the revenues of USS, the electricity balance is taken into account, which should reflect only the costs of electricity supply for customers who enjoy the right to supply in terms of universal service. The energy produced by KEK will be offered in the wholesale market, which must be done in accordance with the "Energy Trade Procedure". Respecting this procedure and Market Rules, the Transmission System Operator and the Distribution System Operator make the purchase of energy to cover losses and provide ancillary services. Contracts for these services must be made in accordance with market principles.

Load forecasting (Energy Balance) - available energy includes: purchases of energy generated by KEK, purchases of energy produced by hydropower plants, production of energy from solar panels, production of energy from wind turbines, purchases from imports, purchases of electricity losses for the transmission system, distribution and sales to regulated tariff customers.

These energy and financial data allowed for 2019 are presented in the following table:

Tab. 3.14 Allowed purchases of electricity for USS

Electricity purchasing costs - 2019	GWh	€/MWh	mi€
Quantities supplied by KEK	3,293.0	29.5	97.14
Ujmani and other OST-level generators	296.0	37.3	11.03
OST-level generators	142.6	37.8	5.39
Import	41.3	60.0	2.48
Total supplied quantities	3,772.0	30.8	116.05
Retail margin [3.00 %]			3.81
Total Electricity purchasing costs			119.53

From the data presented in the table above, it can be seen that the average price for purchasing energy in the wholesale market for USS is € 30.8/MWh.

3.9.3 Revenues and electricity tariffs for regulated customers

In accordance with the general principles set out in the legislation and the Rule on USS Revenues, KESCO has prepared the application with proposals for revenues and tariffs for review by ERO.

ERO after evaluating the applications of the licensees, has made the necessary analyzes and has prepared the Evaluation Report for the maximum allowed revenues for USS. This report has been in public consultation for the purpose of obtaining comments from stakeholders. Following the acceptance of the comments and their review, ERO has prepared the final report on the maximum allowed revenues for USS.

After determining the maximum allowed revenues, the licensee has submitted the proposals for tariffs, where ERO has analysed the proposal and decided that the regulated tariffs remain the same.

Justifiable costs which have been used to determine regulated tariffs include: energy purchase costs, transferable costs (transmission and distribution network costs), supplier costs (retail costs) and adjusted costs. Details of these costs are presented in the following table.

Tab. 3.15 Justifiable costs which are used to determine the regulated fees

MAR for Universal Service Supplier - 2019	mil€
Operating expenses	6.06
Depreciation	0.11
Transferable costs	
TSO costs	30.34
DSO costs	101.50
RES fund	12.06
Working Capital (WCLCt)	1.68
Costs for purchasing energy	119.53
License fee	0.01
Adjustments 2018	-32.42
Bad debt (BDTA)	9.95
Final MAR	248.82

ERO sets the regulated tariffs for customers who enjoy the right to supply in terms of universal service. The criteria for which customers enjoy this right are set out in the Law on Electricity, according to which: "The right to universal service is enjoyed by all household customers and non-household customers who have an annual turnover of no more than ten (10) million Euros, or not more than fifty (50) employees".

In 2019, the customers who have been billed with regulated tariffs are the customers connected to the voltage levels 35kV, 10kV and 0.4kV, while the customers connected to the voltage level 220kV and those at 110kV have been supplied at unregulated prices (market prices)

It should be noted that all customers are entitled the supply at market prices, i.e. the possibility to choose a supplier. So far ERO has licensed a total of 8 suppliers from which customers can purchase their energy at unregulated prices, but it is worth noting that only KESCO is active.

The structure of retail electricity tariffs for customers with universal services (regulated tariffs) is designed to cover the set revenues in the amount of 248.82 million euro's.

The following table shows the structure of retail tariffs, after the application of these tariffs it is expected that the supplier will bill the allowed level of maximum allowed revenues. This tariff structure is being applied from April 1, 2019.

Tab. 3.16 Tariff Structure of Retail Customers for 2019

Tariff Group	Voltage Level of Supply	Customer Tariff	Unit	Time of the day	Approved 2018
1	35kV	Customer Fixed Tariff	€/customer/month		11.19
		Engaged Power	€/kW/month		5.85
		Active Energy (P), of which	€/kWh	High Tariff	4.92
			€/kWh	Low Tariff	3.16
		Reactive Energy (Q)	€/kVArh		0.67
2	10kV	Customer Fixed Tariff	€/customer/month		4.62
		Engaged Power	€/kW		5.04
		Active Energy (P), of which	€/kWh	High Tariff	5.73
			€/kWh	Low Tariff	3.69
		Reactive Energy (Q)	€/kVArh		0.67
3	0.4 kV Category I (reactive power customers)	Customer Fixed Tariff	€/customer/month		2.57
		Engaged Power	€/kW		2.97
		Active Energy (P), of which	€/kWh	High Tariff	6.69
			€/kWh	Low Tariff	4.96
		Reactive Energy (Q)	€/kVArh		0.67
4	0.4kV Category II	Customer Fixed Tariff	€/customer/month		2.97
		Active Energy (P), of which	€/kWh	Single Tariff	8.83
			€/kWh	High Tariff	10.71
		Active Energy (P), of which	€/kWh	Low Tariff	5.30
5	0.4kV 2-rate meter (household)	Customer Fixed Tariff	€/customer/month		1.74
		Active Energy (P), of which	€/kWh	High Tariff	6.75
			€/kWh	Low Tariff	2.89
6	0.4kV 1 rate meter (household)	Customer Fixed Tariff	€/customer/month		1.74
		Active Energy (P), of which	€/kWh		5.32
7	0.4kV (household- unmetered)	Estimated consumption			
		Customer Fixed Tariff	€/customer/month		1.74
		Active Energy (P), of which	€/kWh	Average Tariff	6.75
8	Public Lighting	Customer Fixed Tariff	€/customer/month		3.21
		Active Energy (P), of which	€/kWh	Single Tariff	9.24
High Tariff (day) is applied from 07:00-22:00 during the period from 1 October until 31 March					
High Tariff (day) is applied from 08:00-23:00 during the period 1 April until 30 September					
The customer is charged with reactive energy above the allowed one which corresponds with $\cos(\Phi)<0.95$					

3.9.4 Revenues and tariffs for the use of the transmission system

During 2019, ERO has carried out the process of adjusting revenues through the application of efficiency factor and indexing costs for inflation for operating expenses, repairs & maintenance, cost of purchasing losses, return and depreciation costs resulting from planned investments according to development plan and other reasonable costs for operating the transmission and distribution system.

To enable the security of electricity supply, support for increasing the load, integration of renewable sources, increasing the quality of supply, ERO during the periodic review for the regulatory period 2018-2022 has allowed capital investments of about 60 million euro's for OST/OT . The allocation of these investments over the years for the period 2018-2022 is presented in the figure below.

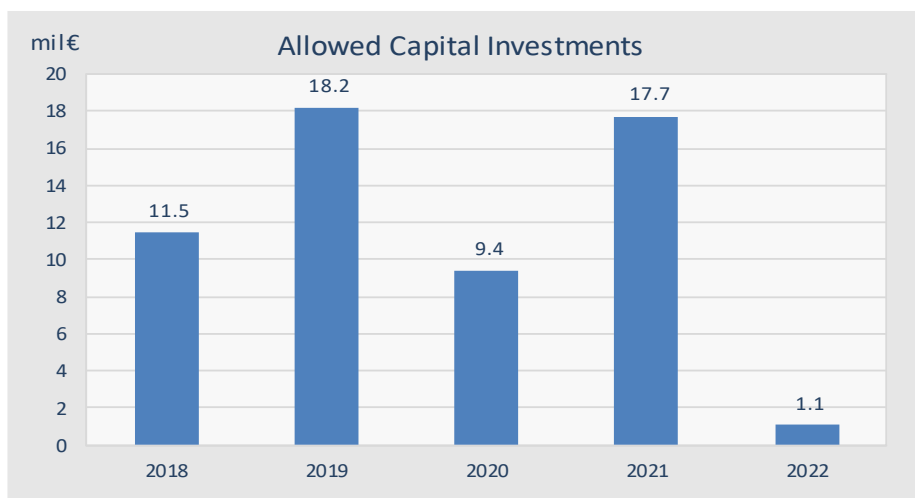


Fig. 3.3 Capital investments for TSO / MO

In order to ensure supply, liberalization and integration of electricity markets, integration of new generation capacities, reduction of losses and improvement of other technical parameters of the network, sufficient revenues for the operation of the transmission network have been allowed.

The table below presents the maximum allowed revenues approved by the ERO Board for the relevant tariff year 1 April 2019 – 31 March 2020.

Tab. 3.17 Maximum allowed revenues for TSO/MO

TSO/MO MAR - 2019	mil€
Operating expenses	7.42
Depreciation	10.63
Allowed return	9.59
Allowed losses	5.11
RESs fund costs	13.74
Costs of auxiliary services	2.66
Unregulated tariff revenues	-0.06
Revenues from IPP	-0.40
Adjustments of PRR1 and 2017	
Adjustments	-1.26
Revenues remaining from KEK	-3.33
Correction of imbalances 2017	0.23
Bad debt (BDTA)	9.85
Final MAR	54.19

The maximum allowed revenues for KOSTT will be collected through the tariffs approved by ERO based on the Methodology of determining the tariffs of the transmission system, system operation, and market operation. So, KOSTT has two licenses issued by ERO such as: Transmission System Operator which manages and operates with high voltage power transmission system and Market Operator which is responsible for the organization and administration of trade (sale-purchase) of electricity and conducting transactions between producers, suppliers and other customers.

The following table presents the structure of tariffs for the use of the transmission system operator and market operator that is applied from 1 April 2019.

Tab. 3.18 TSO/MO tariff structure for 2019

Tariff group	Tariff element	Unit	Tariff
Generation connected to transmission	System Operator Tariff	€/MWh	1.241
	Market Operator Tariff	€/MWh	0.036
Generation connected to distribution	System Operator Tariff	€/MWh	0.550
	Market Operator Tariff	€/MWh	0.036
Distribution operator	System Operator Tariff	€/MWh	1.286
	Market Operator Tariff	€/MWh	0.038
Supply	TOUS Tariff 400/220 kV	€/kW/year	11.600
	TOUS Tariff 110 kV	€/kW/year	23.885
	System Operator Tariff	€/MWh	1.286
	Market Operator Tariff	€/MWh	0.038
	RES Fund Tariff	€/MWh	3.198

3.9.5 Revenues and tariffs for the use of distribution system

The process of regular annual adjustments similar to TSO/MO is also applied to DSO. Thus, ERO through a transparent process and consulting with all stakeholders has determined the maximum allowed revenues for DSO for 2019.

To enable the security of electricity supply, support for increasing the load, integration of renewable sources, expansion and strengthening of the network, increasing the quality of supply, ERO during the periodic review for the regulatory period 2018-2022 has allowed capital investments of about 131 million euro for DSO.

The allocation of these investments over the years for the period 2018-2022 is presented in the figure below:

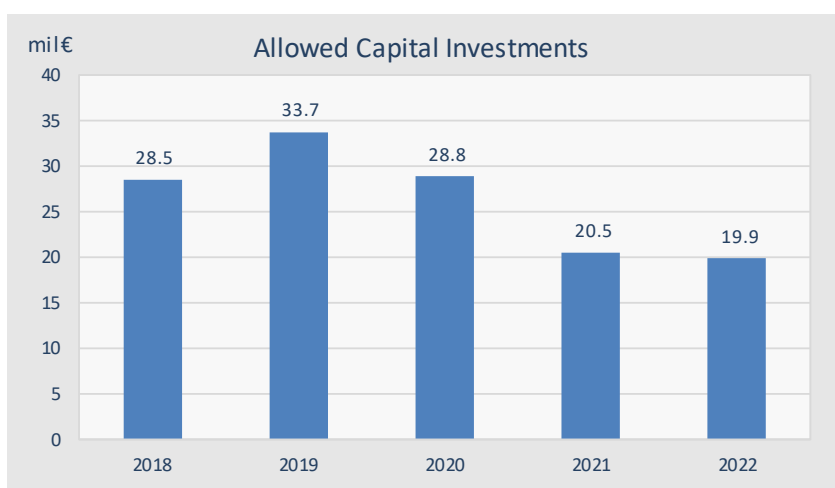


Fig. 3.4 Capital investments for DSO

DSO revenues for the period 1 April 2019 – 31 March 2020 which have been approved are presented in the following table;

Tab. 3.19 Maximum allowed revenues for DSO for the period 1 April 2019- 31 March 2020

DSO MAR - 2019	mil€
Operating expenses	26.30
Depreciation	14.65
Allowed return	13.59
Obligations for OS and OT	1.23
Allowed losses	41.89
Unregulated revenues	-3.50
Adjustments of PRR1 and 2017	
Adjustments	-1.50
Correction for loss price of 2017	-2.48
Correction for imbalances of 2017	1.74
Revenue Correction Factor KREV	9.58
Final MAR	101.50

The maximum allowed revenues for DSO will be collected through the tariffs approved by ERO based on the Methodology of determining the Distribution System Tariffs.

The following table shows the structure of tariffs for the use of the Distribution System for 2019.

Tab. 3.20 The structure of tariffs for DSO for 2019

Tariffs for customers connected to DSO		
Voltage level	Unit	Tariff
35 kV	€/kWh	1.71
10 kV	€/kWh	2.01
0.4 kV	€/kWh	2.77

3.9.6 Thermal energy tariffs

In accordance with the primary legislation - Articles 47 and 48 of the Law on Energy Regulator, the Energy Regulatory Office (ERO) is responsible for determining the methodology of tariffs and approving tariffs in the regulated energy sector.

Within its legal competencies and obligations, the Energy Regulatory Office has issued the Thermal Energy Pricing Rule. The rule defines the procedures for submission, review of the tariff application and approval of fees, as well as Methodology for calculating the maximum allowed revenues and tariffs.

Schematically, Tariff Methodology is shown as follows:

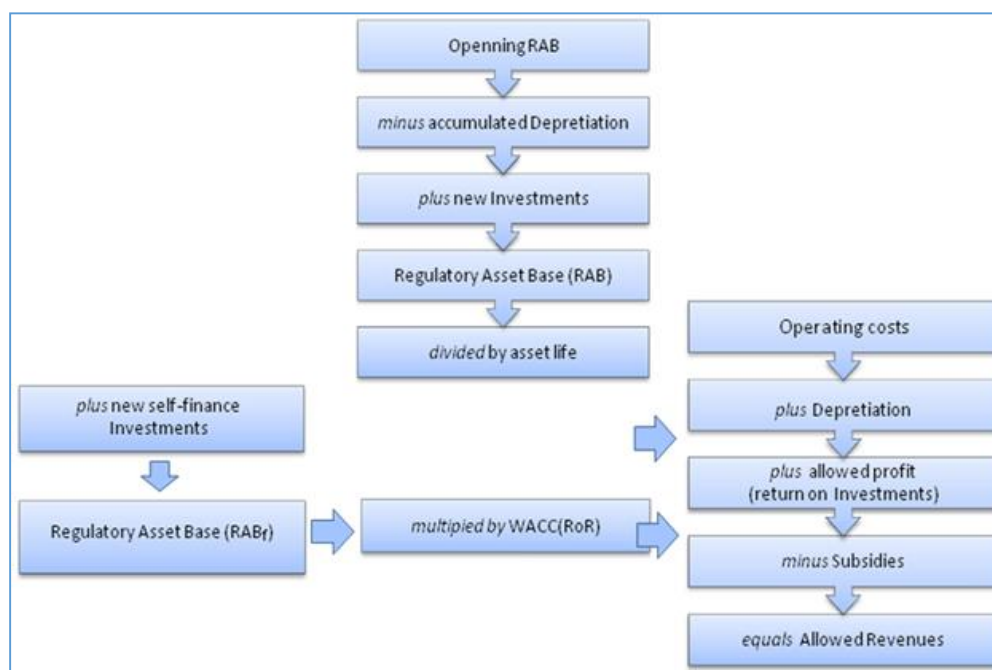


Fig. 3.5 Scheme of calculation of allowed revenues

From the schematic presentation it is noticed that the costs that the enterprise has to cover consist of operating costs, the depreciation that presents the possibility for the enterprise to replace its assets, the cost of network losses and return to the Regulated Assets Base (RAB).

The process of setting tariffs and approving them has been done in two steps:

1. Determining Maximum Allowed Revenues, based on: information and data provided in the tariff application; ii) information submitted during the regulatory reporting of realizations in the last season 2018/2019; and iii) the coordination between actual and projected realizations, which is based on the difference between the planned revenues and those of the previous heating season.
2. Calculation of tariffs based on Maximum Allowed Revenues and tariff structure.

For the determination of the allowed Revenues of DH Termokos JSC, for the 2019/2020 season, in accordance with the Thermal Energy Pricing Rule, ERO has undertaken the following:

- 1) Estimation and determination of allowed operating costs;
- 2) Evaluation and determination of depreciation;

- 3) Determining the Allowed Return on RAB (Return on Investment), which includes:
 - a) RAB determination - assessment and approval of company assets, verification and approval of planned investments and working capital; and
 - b) calculation of Allowed Rate of Return (RoR)/WACC;
- 4) Assessing and determining the allowed cost for network losses.

ERO has engaged the expertise available to make a more realistic assessment of the information provided by Termokos. A comprehensive analysis and evaluation of the presented information has been made, which has been followed by the comparison of the respective data from the previous seasons, in order to determine the exact (forecast) of the allowed revenues for the 2019/2020 season.

In the framework of the tariff review for DH Termokos, ERO has drafted Regulatory Reports for determining the maximum allowed revenues and for determining the thermal energy tariffs for the 2019/2020 season.

Following the review of the relevant tariff review documents, in the session of 14 October 2019, the ERO Board approved the Maximum Allowed Revenues (MAR) for DH Termokos for the 2019/2020 season, in the amount of 6,472,902 euro's. Tariffs reflected by the MAR of DH Termokos for the heating season 2019-2020, have been reduced to an average value of 3.85% - Tariffs according to measured consumption have been reduced by 6.8%; while tariffs according to the heated area (per m²) have been reduced by 2.37%.

Decisions issued:

- V_1187_2019 -for the approval of Maximum Allowed Revenues (MAR) for DH Termokos that will be collected from the thermal energy (heating) tariffs for final customers for the 2019/2020 season;
- V_1188_2019 -for the approval of thermal energy tariffs for the final customers of DH Termokos for the heating season 2019/2020;

Regarding DH Gjakova, ERO has also undertaken a comprehensive assessment of the financial and energy performance of DH Gjakova, which has included the realizations of past seasons. Based on this assessment, these conclusions are drawn:

- The current financial situation and the high price of fuel - fuel oil, condition a limited supply of fuel and consequently limited production and supply limited of thermal energy; It should be noted that the purchase/supply of fuel oil is entirely dependent on subsidies from the Kosovo Budget, i.e. from the expected allocations of the 2020 budget, which has not yet been approved.
- Other operating and maintenance costs also reflect limited financial resources to the extent that they enable a basic operation and limited thermal energy supply.
- In this regard, the supply of thermal energy is limited for a period of three months (the coldest months of the season, December - February) and also the halved number of customers, i.e. the heating area of customers.
- Also, the difficult financial situation makes it impossible for any self-financing of new investments in the district heating system of DH Gjakova, which would affect the reduction of losses in the network and heating production plants, which are currently estimated to be quite large. In this

regard, it should be noted that, in terms of development projects, the whole activity is focused on the project for construction of the new heater and the EU-funded biomass cogeneration unit.

The above given descriptions of the main components for tariff review argue that it is currently very difficult to make any realistic and accurate enough planning (forecasting) to undertake a proper tariff review, which would result in the correct determination of the allowed revenues and tariffs for the 2019/2020 season. Consequently, the ERO Board in its session of 27 November 2019, after reviewing the request of DH Gjakova and the evaluation of the relevant professional staff of ERO, has decided that the tariffs of thermal energy of DH Gjakova for the season 2019/2020 to remain the same as last year until the next tariff review.

- V_1193_2019 - for the approval of thermal energy tariffs, for the final customers of DH Gjakova JSC. for the 2018/2019 heating season.

The structure and levels of thermal energy tariffs for DH Termokos and DH Gjakova are presented as follows:

Tab. 3.21 The structure of thermal energy tariffs for 2019

Thermal energy tariffs - 2019/2020 season					
Tariff components with measurements	Unit	DH Termokos		DH Gjakova	
Thermal capacity monthly tariff (fixed component)	[€/kW/muaj]	0.78		0.91	
Thermal energy supply/consumption tariff (variable component)	[€/MWh]	36.25		58.76	
Tariff components without measurements	Unit	Residential customers	Commercial and institutional customers	Residential customers	Commercial and institutional customers
Thermal capacity monthly tariff (fixed component)	[€/m ² per month]	0.11	0.14	0.09	0.12
Thermal energy supply/consumption tariff (variable component)	[€/m ² per month]	0.65	0.81	0.88	1.27
Total tariffs for customers without measurements	[€/m ² per month]	0.76	0.95	0.97	1.39

3.10 Activities of the Regulator in the Area of Customer Protection

The Regulator in accordance with the Law on the Energy Regulator is responsible for resolving complaints and disputes between customers and licensees, between two licensees, and in relation to the third party's access to the transmission system, or distribution of electricity, thermal energy or natural gas, as well as transmission, cross-border flows of electricity and natural gas.

According to the provisions of the Rule on Resolution of Complaints and Disputes in Energy Sector, all customers have the right to file complaints related to the services provided by the system supplier or operator, and these complaints must first be addressed to suppliers, as the first instance body, which reviews the complaint and issues a response within the legal deadline. After receiving the answer, the customer can address the Regulator for further review of his complaint.

During 2019, the Regulator has registered 75 official complaints of customers who have exercised their right against the answers issued by the Supplier, and has reviewed 128 complaints with the Supplier and Distribution System Operator. During 2019, the number of complaints registered at the Regulator is about 41.33% lower than the number of complaints registered during 2018. In addition to the registered and resolved complaints of the customers, the Regulator has also provided support in providing information, explanations, verbal consultations, e-mail, as well as by telephone to all energy customers.

The number of complaints received by customer categories is presented in the table below.

Tab. 3.22 Customer complaints by categories, 2019

Customer complaints by category	Number	Percentage [%]
Residential customer	58	77.33
Commercial customer	15	20.00
Industrial customer	2	2.67
Total	75	100.00

The following figure shows the number of customer complaints by their nature.

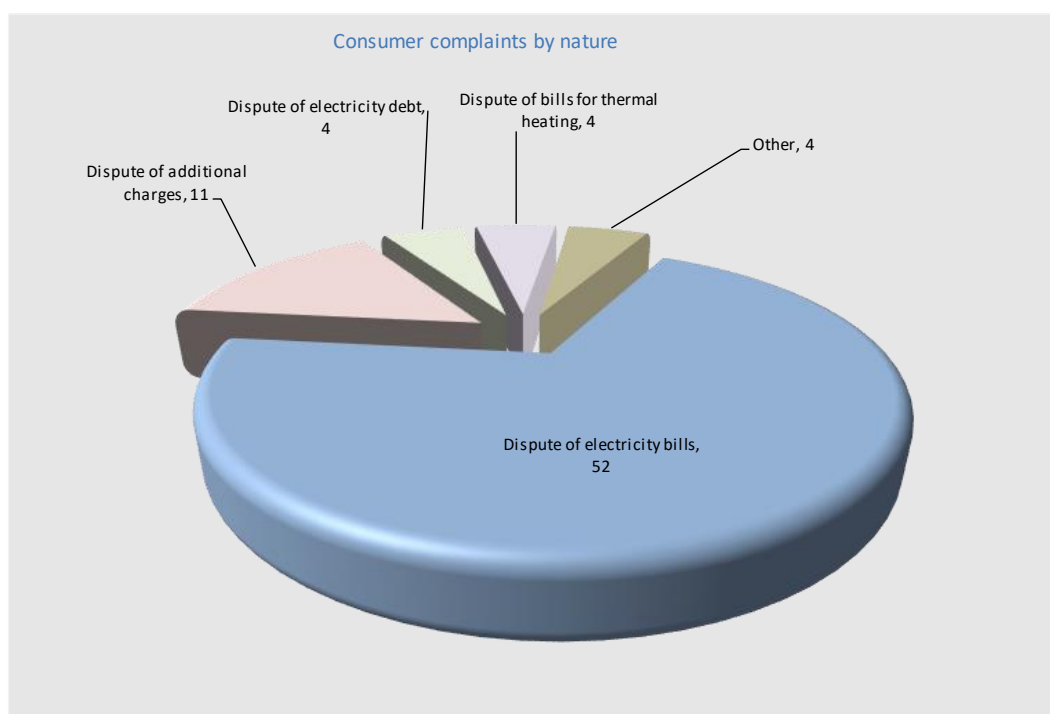


Fig. 3.6 Number of customer complaints by their nature

Below is the explanation of the nature of customer complaints registered for 2019:

- **Contesting electricity bills** relates to customer complaints in cases of incorrect or irregular readings, which in this case are considered to have given an inaccurate reflection of the real state of electricity consumption.
- **Contesting additional charges**, relates to customer complaints regarding additional invoices from regular invoicing. These complaints are the result of incorrect recording of electricity consumption, as a result of a defect in any measuring system.

- **Contesting electricity debt**, relates to customer complaints related to problems regarding the incorrect definition of the electricity debt not collected by the supplier in cases of sale and purchase of property, and to properties that have been usurped.
- **Contesting thermal energy bills** relates to customer complaints regarding thermal energy bills made at DH "Termokos", which are related to the quality of heating and the billed area.

During 2019, the Regulator has resolved 263 customer complaints, including complaints that have been returned for review to the supplier and the distribution system operator. Of the total number of resolved complaints, 192 of them were decided in favour of customers or expressed in percentage as 73.00%, partially approved are 12 or 4.56%, while 59 customer complaints or 22.43% were rejected as ungrounded. All complaints reviewed by the operators, which have been processed by the Regulator, have been reviewed once again by the Regulator in order to certify the full resolution of complaints according to customer requirements, and customers have been notified. In all reviewed cases the customers agreed with the solutions offered.

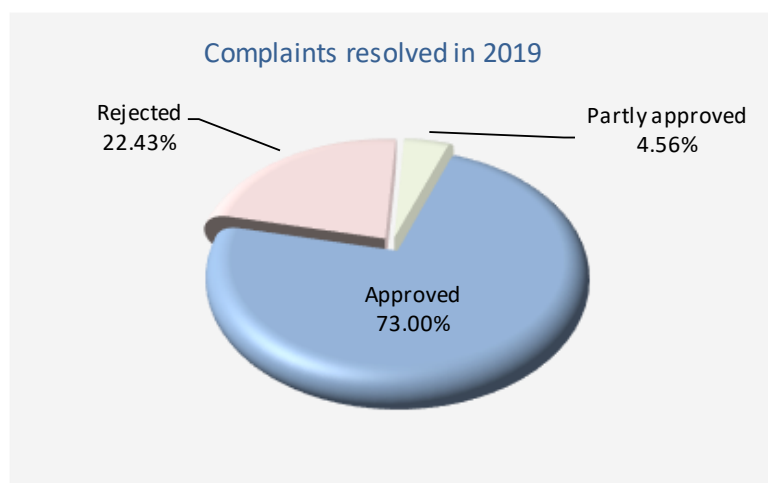


Fig. 3.7 Resolved Complaints, 2019

The number of customer complaints registered and resolved by the Regulator over the years is shown in the figure below.

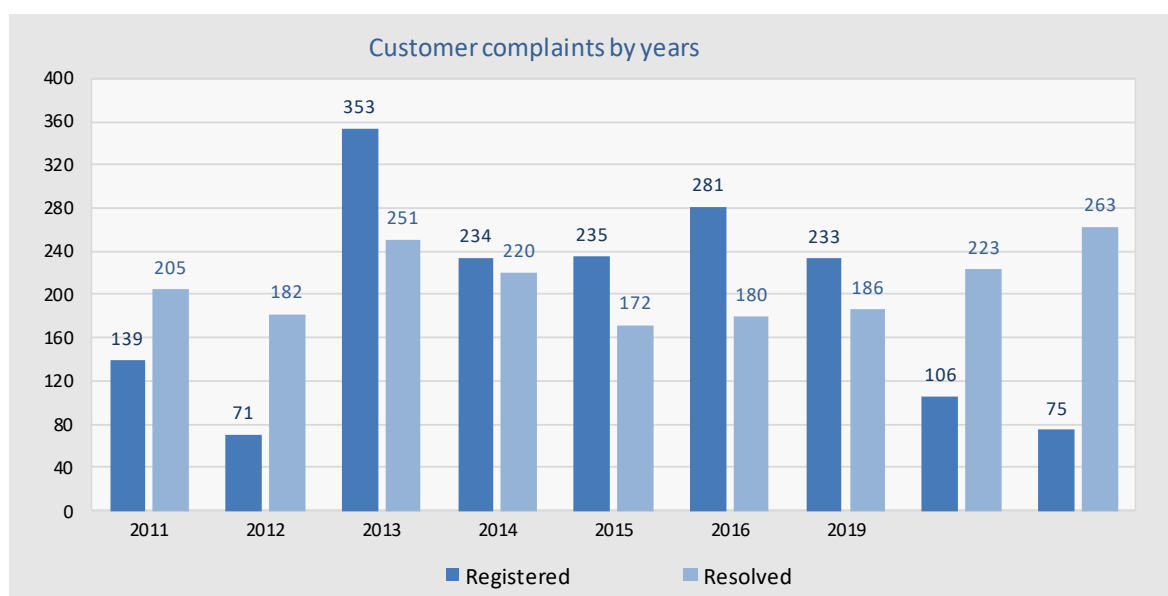


Fig. 3.8 Registered and Resolved Customer Complaints 2011-2019

3.10.1 Disputes between two licensees

Pursuant to Article 17, paragraph 1, sub-paragraph 1.2 of the Law on the Energy Regulator, as well as the legal provisions of Article 4, paragraph 1, under paragraph 1.2 of the Rule on Resolution of Complaints and Disputes in the Energy Sector, the Regulator in addition to the competencies in reviewing customer complaints against an energy enterprise, has the competence for resolution of disputes between two licensees.

Towards the end of 2018, the Transmission System and Market Operator - KOSTT JSC has initiated a dispute at the Regulator against the Kosovo Energy Corporation JSC regarding the objection of the invoice no OST-P-03-2-2018. The dispute raised by KOSTT JSC against KEK JSC regarding the objection of the invoice no. OST-P-03-2-2018 relates to the issue of energy compensation supplied in March 2018 by KEK according to the program compensation to the Transmission System Operators (TSO) of Europe.

The dispute raised by KOSTT JSC against KEK JSC could not be resolved by the Regulator during 2018 because it came at the end of 2018, so it remained to be reviewed and completed at the beginning of 2019. Regarding this, the Regulator on 21.02.2019 after reviewing all case files sent by both licensees KOSTT JSC and KEK JSC, responded to both licensees with an official letter stating that, since both energy companies do not have a written agreement on enabling the return of the compensation program to the TSOs of Europe through the excesses of KEK, which request was approved by the Prime Minister of the Republic of Kosovo, such a dispute cannot be handled by the Regulator, as it is beyond its control and competence, therefore the resolution of this dispute should be requested by both licensees from the shareholders of both enterprises and not by the Regulator.

3.10.2 Decisions of the ERO Board in the area of customer protection

Based on the Rule on Resolution of Complaints and Disputes in the Energy Sector, customers and licensees are entitled to submit complaints against decisions of CPD, as the first instance, to the ERO Board as a second instance.

During 2019, customers have filed 6 complaints at the ERO Board against the decisions of the CPD. Of the 6 registered complaints, the ERO Board reviewed all of these complaints and rejected them as ungrounded.

During 2019, KESCO supplier has submitted 24 complaints to the ERO Board against the decisions of the CPD. Of the 24 registered complaints, the Board reviewed all of these complaints and rejected them as ungrounded.

Also during 2019, the ERO Board has reviewed 4 recommendations issued by the CPD for complaints of commercial and industrial customers, in which case the Board has approved all these recommendations.

3.10.3 Other activities related to customer protection

In addition to the registered complaints, the Regulator's staff during this reporting year has also carried out 1,687 meetings and 1,021 telephone conversations with parties including electronic communications, who have addressed the office for various contractual issues between the customer and the energy enterprise. The Regulator's staff during the communication with customers has informed and instructed them about the rules, procedures and their rights and obligations regarding electricity supply.

During 2019, the Regulator also received 15 customer complaints by mail. Despite the fact that it was necessary to address the licensees or the courts regarding these complaints, the customers insisted on addressing the Regulator in resolving them. The nature of these complaints was mainly for unauthorized use of electricity, as well as damage compensation. The regulator in all these cases responded in writing to the customers by instructing them about further procedures regarding their complaints.

The Regulator, during 2019 same as in the previous years, had close cooperation with the Department of Customer Protection within the Ministry of Trade and Industry. During this reporting year, it has received some customer complaints from this institution. These complaints were received and reviewed by the Regulator in accordance with the legal provisions.

During 2019, a number of Regulator's decisions were appealed by dissatisfied parties to the Basic Court in Pristina - Department for Administrative Matters to assess the legality of administrative decisions. During 2019, the Regulator based on the decisions of the Basic Court in Pristina has prepared 22 responses to the claim against the claimants KEK, KEDS, KESCO and customers regarding the decisions of the Regulator's Board. Also, during this reporting year the Regulator has been engaged in 28 court hearings in the Basic Court in Pristina as a respondent party. It is worth mentioning that during the previous years as well as the reporting year, the number of court proceedings that the Regulator has followed has increased significantly and is demanding high engagement.

It is important to note that, so far, no decision of ERO related to customer complaints in administrative procedure has been returned for review due to legality non-compliance by the administrative body; all these charges against decisions of ERO were rejected as ungrounded and the challenged decisions were upheld.

3.11 TSO (KOSTT) Certification Process

As outcome of the requests issued by Directive 2009/72 and Regulation 714/2009 transposed into Kosovo Energy Legislation in relation to the property dissolution of the Transmission System Operator, ERO has drafted and approved the Rule on Certification of Transmission System Operator (April 2017). In accordance with this Rule, ERO on 03.05.2018 has received an Application on Certificate of Ownership of KOSTT.

The entire evaluation process of KOSTT application by ERO has been conducted in cooperation and coordination with the Energy Community Secretariat. This process was concluded on 15.02.2019 with ERO Decision No. V_1107_2019 by which it Certified the Transmission System Operator as the sole operator in the territory of the Republic of Kosovo, by which has been confirmed that the criteria of property dissolution and decision-making independence from the activity of production and supply of electricity have been met, in accordance with the laws of the Republic of Kosovo and Energy Community. This process has been considered successful by the Energy Community Secretariat.

According to the requirements of legislation as stated above, ERO on 14.10.2019, with Decision No. 1186_2019 has approved the Compliance Officer of the Transmission System Operator, while on 27.11.2019 ERO has approved the Compliance Programme of the Transmission System Operator.

4 COOPERATION WITH OTHER PARTIES AND TRANSPARENCY

ERO has shown full transparency in exercising its function by holding Board meetings open to the public and publishing all decisions. Through press releases, announcements, preparation of the bulletin and other publications on the website and in Facebook, the entire public has been informed in time about all activities and events of ERO. During this period, 20 press releases, 11 announcements, 2 bulletins were published and 7 public discussions were announced.

During fulfilment of obligations of ERO, in the drafting and approval of the secondary legislation as well as other regulatory reviews, in order to involve and inform all interested Parties, it publishes and conducts various public consultations. During 2019, ERO has conducted 7 public discussions.

- On 6 February 2019, ERO has announced in public the draft document for Establishment of Public Service Obligation on Security of Supply. This document describes the criteria for measuring the security of electricity supply, the Process for assessing the establishment of a public service obligation and the Supply Security Tax on suppliers.
- During the process of Regular Annual Adjustments for Maximum Allowed Revenues (MAR) for the tariff year 2019 for the Transmission System and Market Operator (TSO/MO, KOSTT), the Distribution System Operator (DSO, KEDS) and the Universal Service Supplier (USS), ERO has prepared consultation papers with initial proposals for the updated MARs':
 - USS Consultation Paper 2019
 - KOSTT Consultation Paper 2019
 - DSO Consultation Paper 2019
- In order to consult with all interested parties, the above-mentioned papers were announced for public consultation on 22 February 2019. In addition to this, all other documents related to this process were published on the official website of ERO.
- On 26 April 2019, ERO has announced in public discussion the draft Rule on Electricity Service Quality Standards. The purpose of rendering the Rule on Electricity Service Quality Standards is to determine indicators of the quality of electricity service for customers, regarding the provided services, the uninterrupted supply of electricity and the quality of voltage.
- ERO, on 2 May 2019, has announced in public discussion the Consultation Paper on "Support Mechanism for RES targets (20 MW Solar Photovoltaic)". The review of these mechanisms has derived as a result of the revision of an Administrative Instruction 05/2017, on the targets of RES by the Government of the Republic of Kosovo through the Ministry of Economic Development.
 - In June 2019, ERO has announced for public discussion the Ten (10) Year Development Plan of the District Heating Enterprise DH "Termokos" JSC. The Development Plan presents the measures that will be taken to guarantee the suitability of the system and to provide the best possible supply of thermal energy district heating), including plans for rehabilitation projects and expansion of infrastructure of the district heating system in the Municipality of Prishtina, during the next ten (10) years.
 - On September 20, the Regulatory Report on Tariff Review for the 2019/2020 season of DH Termokos was published for public discussion.

- ERO has also announced in public discussion the Development Plan 2020-2029 of the Distribution Operator.

4.1 Reporting and cooperation with the Assembly of Kosovo

Meetings with the Assembly Committee on Economic Development, Infrastructure, Trade, Industry and Regional Development

ERO according to the foreseen legal deadlines has presented the Annual Report 2018 in front of the Assembly Commission for Economic Development, Infrastructure, Trade, Industry and Regional Development, in the meeting held on 18 June 2019. The report was approved by the Committee, but due to the political developments it has not been reviewed in the plenary session.

On 20 April 2019, ERO upon a request of the Committee for Economic Development has discussed with the Chamber of Commerce, the American Chamber of Commerce and the Manufacturers' Club, about demands and difficulties that businesses and manufacturers may encounter with the opening of the market. Chamber representatives may have previously asked ERO to postpone the opening of the electricity service market in order to create more supply for genuine liberalization.

Informative meeting with the Assembly Committee for Agriculture, Forestry, Rural Development, Environment and Spatial Planning

On 16 July 2019, at ERO, representatives of the Board and experts of the Energy Regulator held an informative meeting with members of the Assembly Committee on Agriculture, Forestry, Rural Development, Environment and Spatial Planning. The purpose of this meeting was to inform the members of Assembly with the process of Authorization for construction of new capacities from Renewable Energy Sources (RES), specifically in relation to the several projects, for the construction of hydropower plants, for which members of the Assembly Commission have raised questions and asked for more detailed explanations.



Fig. 4.1 – Working meeting with the Assembly Committee for Agriculture, Forestry, Rural Development, Environment and Spatial Planning 2019, Prishtina

Members of the Assembly have requested clarifications regarding the process and procedure of issuing the authorizations, expressing their concerns in relation to the ambiguities and reactions of the citizens related to some of these projects.

ERO representatives have presented to the Members of the Assembly the process led by ERO, a process based on the Energy Laws and the Authorization Rule.

Agreement with the Kosovo Chamber of Commerce

In order to increase cooperation and provide support to economic development in the country, on 29 January 2019, ERO has signed a cooperation agreement with Kosovo Chamber of Commerce (KCC).

Through the mentioned memorandum, ERO and KCC have agreed that within the function of general economic and social development to assist, promote, support and raise the level of mutual cooperation between them.

ERO and KCA have also agreed to exchange information about their activities and of member businesses. According to the memorandum, the exchange of information will be based on the authorized requests of both Parties and in full compliance with applicable laws.



Fig. 4.2 – Signing of the agreement with KCA 2019, Prishtina

ERO through this memorandum has emphasized once again that it will have as a priority the involvement of all Parties, in the processes of reviewing the development plans of the Transmission and Distribution network, as well during other regulatory processes that are of general interest.

4.2 Cooperation with International Organizations

Cooperation and new agreements with Regional Regulators and other Parties

Cooperation Agreement with ERC

On 19 November 2019, ERO has signed a cooperation agreement with the Energy and Water Regulatory Commission (ERC) of the Republic of Northern Macedonia. The signing of this Agreement expresses the common interest of both institutions to cooperate in fulfilling their obligations to maintain the energy sectors of both countries. Through the signing of this agreement, the two regulatory authorities agreed to exchange information on the applied practices, while fulfilling obligations that are in common with public interest of both countries. Exchange of experiences will be applied in the field of regulatory policies in the energy sector, experience in monitoring licensed activities, methodologies applied in determining tariffs for energy activities, construction of the new generators of RES, manners to support projects by RES, as well as other applied practices that will help to increase the professional capacities of both institutions.



Fig. 4.3 – Signing of the Agreement with ERC 2019, Prishtina

Cooperation agreement with ERE

ERO on 13 December 2019 has signed a Cooperation Agreement with the Energy Regulatory Entity (ERE) of the Republic of Albania. This is the second agreement, after the one signed in 2013, that Regulators of both countries are signing in order to strengthen the cooperation and adapt to the new circumstances created in the energy sector. With this agreement, the two regulators have highlighted the opportunities to focus their joint efforts on the development of a sustainable regulatory structure in the electricity and gas sectors at the regional and bilateral levels.



Fig. 4.4 – Signing of the Agreement with ERE 2019, Prishtina

Partnership activities with NARUC

Addressing the issue of vulnerable customers

The subject of protection of vulnerable customers in the energy sector, which was addressed in the Workshop held in August 2019, has been part of the Partnership Activity that ERO has with the National Association of Regulatory Utility Commissioners (NARUC). The partnership between ERO and NARUC has been supported since 2008 by the United States Agency for International Development (USAID). Considering that the Regulator has an important role in addressing customer protection in the energy sector as part of the partnership with NARUC, ERO is committed to better understanding of the extent to which vulnerable customers will be affected by the abolition of inter-subsidy, the methods by which these customers will be classified, and the policy options available in Kosovo to address this issue. As part of this activity, on 20 August was held a workshop with other Parties involved, in order to address this issue at a wider inter-institutional level.



Fig. 4.5-Workshop for vulnerable - August 2019, Prishtina

In addition to this, the staff of ERO during 2019 has participated in three other groups that NARUC has organized in order to support the energy sector in the region countries.

Cyber Security

ERO has also been part of NARUC's Cyber Security policy development program. To this end, three ERO representatives participated in two workshops organized by NARUC and USAID during 2019. The first workshop was held in Warsaw from 10 to 12 April 2019, where the subject was "Effective Cyber

Security Regulation". Whilst, the Second Workshop was held in Skopje on 28-29 October on "Guidelines for Cyber Security Fees".

The purpose of these roundtables was to familiarize regulators with guidelines for setting tariffs to improve the situation in the power system in relation to cyber security. Participants were also instructed on the approach that regulators should follow in order to advance their preparations for aspects of cyber security.

The purpose of participation in international activities is considered by ERO as one of the key elements that serves institutional strengthening, increase of knowledge and experience of its staff. The main activities and the active participation in international organizations, international conferences, roundtables or multilateral and bilateral meetings are presented below.

4.2.1 Participation in the Energy Community Regulatory Board (ECRB)

The Energy Community (EC) is an international organization established by the international treaty in October 2005 in Athens, attended by the European Union countries, the South East European region and the Black Sea. EC activities during 2018 were focused towards achieving a common goal: "acquis communautaire" implementation, develop the harmonized regulatory framework at regional level and liberalize and integrate markets in the electricity and natural gas sectors.

EC Contracting Parties are: Albania, Bosnia and Herzegovina, Kosovo, Northern Macedonia, Montenegro, Serbia, Moldova, Ukraine and Georgia. European Union member states are participants, whereas Norway, Turkey and Armenia have the observer status.



Fig. 4.6 Member states of the Energy Community of South East Europe

Energy Community Treaty (ECT) is a key strategic component of the European Union (EU) for Southeast Europe and an effective pre-accession tool, which is aimed at expanding benefits from the Regional Energy Market before the regional countries become EU members.

The main institutions of the EC are: Ministerial Council (MC), Permanent High-Level Group (PHLG), Energy Community Regulatory Board (ECRB), the EC Secretariat with the seat in Vienna and four advisory forums: on electricity, natural gas, social issues and oil.

ECRB – “Energy Community Regulatory Board” is an institution established under Article 58 of the ECT SEE, comprised of regulatory authorities of the contracting parties, participants and observers. ECRB plays the role of a coordinating body of the regulatory authorities for harmonization of the regulatory framework, exchange of knowledge and development of best practices on implementation of the treaty.

Based on the provisions of the EC Treaty, ECRB has the responsibility to:

- advise to the Ministerial Council and PHLG on statutory, technical and regulatory issues;
- Issue recommendations to parties, in line with the provisions of the Treaty, on any cross border disputes, etc.;
- Undertake measures against parties, if authorized by the MC;
- Facilitate cooperation and coordination among regulatory authorities;
- Give recommendations and draft reports about the functioning of energy markets; and
- Seeks fulfilment of the parties’ obligations under ECT.

With the purpose of fulfilling its responsibilities, ECRB is organized in working groups that perform activities in their respective fields. ECRB is chaired by the President, annually elected by the representatives of national regulators, and the deputy who is delegated by the European Commission.

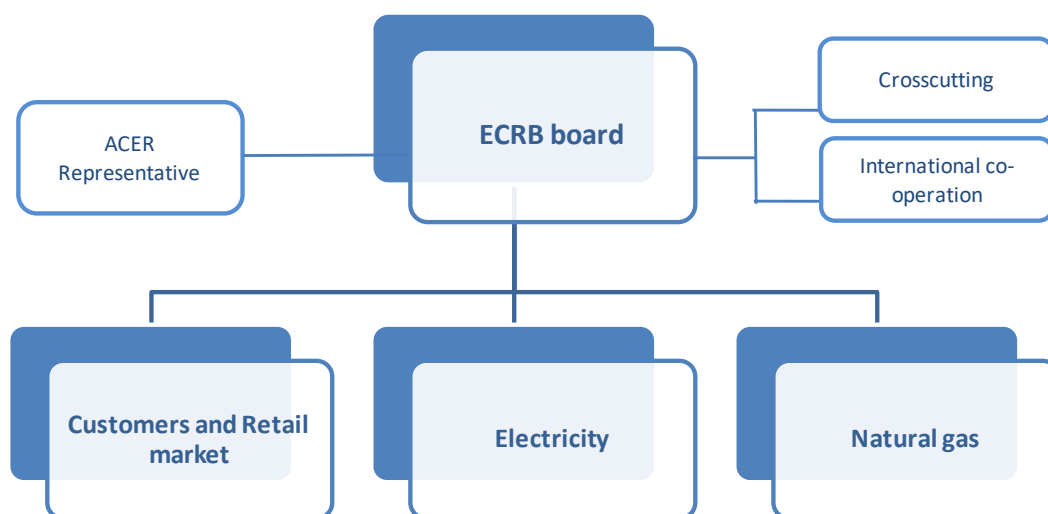


Fig. 4.7 Registered and Resolved Customer Complaints

4.2.2 Activities of the Regulator within ECRB

Under its obligations to the EC, ERO has appointed its members to the ECRB and to each working group, and actively participates in the activities of the Board and of the relevant working groups. Activities of the respective groups are presented below:

4.2.2.1 Electricity Working Group

During 2017, this working group has held regular meetings and activities within its scope; for more efficient work, this group has also established its subgroups (Task Forces –TF), description and activities of which are presented below:

- **TF1 – Electricity Wholesale Market Opening**

In order to support the effective opening of electricity regional markets in Energy Community, this subgroup is focused on regulatory support activities, integration of the "day-ahead" market and "intraday" markets in the South East Europe. Also, activities are focused on providing coordinated inputs for the adaptation of EU Regulations: 1223/2015 on Capacity Allocation and Congestion Management and 1719/2016 on previous Capacity Allocation.

A number of documents were compiled within this Task Force, such as: i) The Report on Trading Activities on the "day-ahead" and "intraday" markets; and ii) Report on the status of 'intraday' markets in the Contracting Parties;

- **TF2 –Integrated Market Balancing**

Implementation of balancing mechanisms based on the market and interconnection of national balancing markets into regional market shall promote transparent formation of balancing prices, shall encourage competition in purchasing of balancing services and have positive impact on the stability of transmission network. This process has received an additional boost from the WB 6 Initiative.

In this respect, TF-2 subgroup activities have resulted in drafting of Reports for: i) Balancing Market Development Plans; ii) Analysis of Price Formation of Imbalances in Contracting Parties; and iii) Coordinated Regulatory Input for Cross-Border Balancing.

- **TF3 – Electricity Wholesale Market Monitoring**

Market Monitoring is a key component of regulatory responsibilities, which is also defined in "acquis communautaire", a full disclosure of market performance and development prospects, enables the promotion of competition, customer protection, energy efficiency, investment and safety of supply.

In this context, activities are focused on drafting of documents such as: i) Monitoring Report on the Development of Electricity Wholesale Market in the Contracting Parties; ii) Guideline on SEE Market Monitoring.

- **TF4 – Monitoring transmission rates based on R838 / 2010**

Within this task force are assessed annual loads of the transmission system on electricity generators (G-charges) that are applied to the Contracting Parties, as well as the relevant recommendations for harmonization at the level of the Energy Community.

4.2.2.2 Gas Working Group (GWG)

This working group focuses its activities on issues of regulating the natural gas sector, harmonizing the regulatory framework at regional level and other issues related to the development of natural gas infrastructure in the SEE region. For efficiency purposes and in favour of handling of specific issues, specific subgroups are created ("Task Force"-TF).

- **TF1 – Natural Gas Wholesale Market Monitoring**

Market monitoring is a fundamental component of regulatory responsibilities, because complete reporting on market performance and development prospects promotes competition, customer protection, energy efficiency, investment and safety of supply.

Within this sub-group, the activities are mainly focused on: i) Monitoring Reports on Developments of Gas Wholesale Market in Contracting Parties; and ii) Monitoring Report of Compliance with Transparency Requirements in Contracting Parties as well as Monitoring Report on ACER Gas Markets.

- **TF2 – Transparency**

Transparency Monitoring has included two components: Assessing Compliance with Transparency Requirements of the Energy Community “acquis communautaire”, and joint venture with “MedReg” to compare transparency achievements. The work within this task force has been concretized with the drafting of 2 reports: i) Report on the compliance of the Contracting Parties with the requirements for transparency of the ‘acquis communautaire’ of the Energy Community; and ii) ECRB-MedReg Joint Transparency Report.

- **TF3 – Implementation of Network Codes**

Upon adoption by the Energy Community of the Network Codes under the Third Package, implementation of these codes by the Contracting Parties is one of the primary tasks in the Energy Community Agenda. In this regard, Regulatory Authorities shall identify and select the best model for implementing network codes.

Activities within this task force are focused on monitoring on congestion of intersection points, considering the trading of capacities in the secondary markets and the use of ‘intermittent’ capacity.

- **TF4 – Coordination of transmission and distribution systems**

Coordination between transmission and gas distribution system operators has become increasingly important in the process of opening of the market and developing network codes, including the interaction between these two systems. The activities are focused on coordinating the development and maintenance of transmission and distribution networks, gas quality at the transmission and distribution level, as well, as on the models applied for balancing. In this regard, an Analytical Report on the common issues of transmission and distribution network codes has been compiled.

4.2.2.3 Customer and Retail Market Working Group

Within the ECRB, there is a customer working group with its own sub-groups, which deals with customer-related activities, tariffs and retail prices, contractual relations between suppliers and customers, and the quality of energy supply and regulation of the voltage quality.

- **TF1 – Retail Market Monitoring**

Market monitoring is a fundamental component of regulatory responsibilities; complete reporting on market performance and development prospects allows regulators to create an

effective framework that balances market participants' needs and promotes competition, customer protection, energy efficiency, investment and safety of supply.

In this regard, the activities of this sub-group include: i) drafting a Monitoring Report on the functioning of retail electricity markets and natural gas in the EC; ii) issuing inputs for the ACEER-CEER Report on monitoring the development of retail markets.

- **TF2 – Customer protection**

Customer protection is considered as one of the main tasks of the Regulatory Authorities, and consequently this responsibility is conveyed to regional / international organizations such as ECRB, CEER and MEDREG. It is estimated that cooperation of these 3 regional bodies is important in the exchange of best and most efficient experiences in the field of customer protection. Among the main activities of this task force was holding of the three-party ECRB-CEER-MEDREG Workshop where numerous aspects of customer protection were reviewed.

- **TF3 – Quality of Supply**

Achieving a satisfactory degree of quality of continuous supply remains a basic activity of regulatory Authorities, as well as monitoring the quality of electricity and gas supply. Activities of this task force have resulted in the drafting of the joint ECRB-CEER Comparative Report on the quality of electricity and gas supply, in which are presented the respective data on the quality of supply in the 'Contracting Parties' and the relevant analyses.

- **TF4 – Self-consumption producers ('Prosumers')**

Following the latest technological developments, especially RES (photovoltaic solar) technologies, customer interest in installing these technologies for generation and self-consumption has been increased. In this context it is necessary to develop a specific, transparent and comprehensive framework for the treatment of self-consumption energy producers.

As part of the relevant activities, this task force has undertaken a research which has included: Assessment of capacity levels for qualification as self-consumption producers; legal procedures for admission to the self-consumption producer scheme; identifying potential barriers; and has made recommendations on improvement in accessing the self-consumption producers.

- **TF5 – Losses in electricity networks**

Since losses directly affect tariffs, then the reduction of network losses is always in the focus of regulatory activities in order to increase the efficiency of system operation. In this regard, the task force has drafted a report on energy losses in the network, which provides comparisons with the level of losses in the EU and the contracting parties of the EC, and has identified practices for calculating network losses.

4.2.2.4 Working Group on REMIT and Cyber Security

Within this group, 4 task forces have functioned:

- **TF1 – Procedural aspects:**

It has addressed issues on the drafting of procedural acts for reporting and the format of reporting, as well handling confidential information.

- **TF2 – Registration and the demand for information technology:**

The registration format of market participants of the Contracting Parties has been established, as well a register at the level of ECRB.

- **TF3 – Implementation of REMIT Regulation no. 1227/2011:**

It has assessed aspects of correct implementation of this regulation and professional capacity building in order to address issues on implementation of REMIT Regulation.

- **TF4 – Cyber Security:**

Considering digitalization in the energy sector, this task force has addressed various aspects of cyber security and made relevant recommendations to increase cyber security in the EC Contracting Parties.

4.2.3 Participation of ERO in meetings organized by international institutions

Given that the regulation in energy sector is a field that is developing dynamically then these developments need to be followed continuously. The Regulator pays special attention to participation in meetings, workshops and trainings. In addition to the contribution made to these meetings and workshops, this has an impact on increasing the knowledge of the Regulator's staff, as well as gaining experience from regional and international regulation practices that are required for professional development.

During 2019, a series of regional meetings, workshops and trainings have been held that have contributed to further enhance the knowledge of Regulator's employees on regulating the energy sector in line with EU standards.

Below are presented the meetings, working groups and trainings held during 2019:

- 29 January 2019 - 42nd Meeting of the Working Group on Customers and the Retail Market within the ECRB, Energy Community Secretariat; Vienna, Austria;
- 26 February 2019 - 46th meeting of the ECRB Electricity Energy Group, organized by the Energy Community Secretariat; Vienna, Austria;
- 14 February 2019 - Workshop "Implementation of electricity network codes in the Energy Community", organized by the Energy Community Secretariat; Vienna, Austria;
- 4-5 April 2019 - 29th EAPM Congress (European Association for Human Management), organized by EAPM and Slovenian Association of Human Resources; Bled, Slovenia;
- 4-5 April 2019 - Workshop "Analysis of the cost benefit of Gas infrastructure projects"; in Budapest, Hungary;
- 27 - 28 May 2019 - 47th Meeting of the ECRB Electricity Energy Group (EWG), organized by the Energy Community Secretariat; Athens, Greece;
- 28 and 29 May 2019 - Athens 24th Electricity Energy Forum organized by the European Commission; Athens, Greece;

- 24 - 25 June 2019 – 43rd Meeting of the Working Group on Customers and the Retail Market within ECRB, as well the second joint roundtable organized between CEER-MEDREG-ECRB, organized by the Council of European Energy Regulators; Brussels, Belgium;
- 25 June 2019 – 2nd CEER-ECRB-MEDREG trilateral Workshop organized by the Council of European Energy Regulators; Brussels, Belgium;
- 20 September 2019 - The 7th Vienna Forum on European Energy Laws, organized by the Energy Community Secretariat, the Law Sector of the European Union School of Florence Regulation, the Robert Schuman Centre for Advanced Studies (RSCAS), the European University Institute (EUI) of Florence, Italy; Vienna, Austria;
- 23-24 September 2019 – 18th Conference on Energy Investment and Regulation Training, in Riga, Latvia;
- 03-04 October 2019 – Conference "100 years of conference interpretation", "Reflection on the past and perspectives of the future", organized by International Labour Organization - ILO (International Labour Organization); Geneva, Switzerland;
- 17 October 2019 – Training on gas and electricity distribution tariffs, organized by the Energy Community Secretariat; Vienna, Austria;
- 16-17 October 2019 – Training - Gender Equality and Diversity in the National Energy Regulatory Authorities; organized by the Council of European Energy Regulators; Brussels, Belgium;
- 23 October 2019 - 48th meeting of the ECRB Electricity Energy Group, organized by the Energy Community Secretariat; Sarajevo, Bosnia and Herzegovina;
- 24 October 2019 - Second meeting of the working group for REMIT, organized by the Energy Community Secretariat; Sarajevo, Bosnia and Herzegovina;
- 25-28 October 2019 – Training “Identifying risk management in the tendering process, managing the procurement process”; Istanbul, Turkey;
- 28-29 October 2019 – Technical Workshop - Guidelines for Cyber Security Fees; organized by NARUC and USAID; Skopje, Northern Macedonia;
- 05 and 06 November 2019 -48th meeting of the ECRB Electricity Group - 3rd ACER Workshop - ECRB on Regulation (EU) 2015/1222 (CACM), organized by the Energy Community Secretariat; Vienna, Austria;
- 14 November 2019 - Regulatory training school: Integration of RES, organized by the Energy Community Secretariat; Vienna, Austria;
- 15-18 November 2019 – Training Role of internal control in budget organizations and public enterprises, in the management of public finances, Istanbul - Turkey;
- 5-6 December 2019 Meeting of the Working Group on Customers and Retail Markets within ERRA, organized by the Association of Energy Regulators; Budapest, Hungary;
- 11 December 2019 – Seventh meeting of the working group for the Security of Supply: under the group of energy electricity; organized by the Energy Community Secretariat in cooperation with the European Commission; Vienna, Austria;

4.3 Procurement activities

ERO has been facing numerous problems as a result of Central Procurement Agency (CPA) failure to perform the procurement procedures. Due to the amendment of the Law on Public Procurement, the office's operation has been hampered by the lengthy procedures pursued by CPA while carrying out procurement activities. This has led the office to remain without services and supplies required for its normal functioning.

5 FINANCIAL REPORT FOR ERO

ERO is funded from its own revenues, in accordance with the Law on Energy Regulator, Chapter 4, respectively from taxes collected by enterprises and licensed operators in the energy sector.

5.1 Revenues

All revenues collected by the Energy Regulatory Office are deposited in accordance with Article 64 of the Law on Public Financial Management and Accountability, in the official bank account established by the Director General of the Treasury.

In 2019, the Energy Regulatory Office has realized revenues in the amount of € 1,329,192.29. Given that the total amount of the budget spent by ERO in 2019 is 699,215.18 €, unspent revenues in the amount of 629,977.11 €, in accordance with Article 23 of the Law on Energy Regulator, have been transferred to the Budget of the Republic of Kosovo.

Tab. 5.1 Revenues

Description	Amount
Own Source Revenues 2019	1,329,192.29 €
Expenditures 2019	(699,215.18) €
Revenues transferred to the Budget of the Republic of Kosovo	629,977.11 €

5.2 Budget

With the Law on the Budget of the Republic of Kosovo No. 06/L-133 for 2019, the Assembly of Kosovo approved the ERO budget in the amount of 836,789€, which is entirely allocated as a government grant, although according to the Law on the Energy Regulator, ERO is funded from its own source revenues and only in cases where such revenues are insufficient, ERO may use budget allocations in the form of government grants. According to economic categories, the budget of ERO is as follows:

Tab. 5.2 Budget at the beginning of the year

Description	Budget
Wages and salaries	523,457.00 €
Goods and Services	219,332.00 €
Utilities	22,000.00 €
Capital expenditures	72,000.00 €
Total	836,789.00 €

With the decision of the Government of the Republic of Kosovo (Decision No. 03/115), ERO's budget has been reduced by € 108,671.25 namely € 47,060.25 in the economic category "wages and salaries" and € 5,611.00 in the economic category "communal expenses" and € 42,000.00 in the economic category "capital expenditures". Expressed in percentage, ERO budget is reduced by 12.98%.

It is important to note that the budget of ERO is shortened by the Government of the Republic of Kosovo at the end of 2019, due to not spending it. The reason for not spending the budget in the category "wages and salaries" is the failure to fill the position of Chairman of the Board and four staff

positions throughout 2019, while not spending the budget in the categories "goods and services" and "capital expenditures" occurred due to non-implementation of procurement procedures by the Central Procurement Agency (CPA).

Tab. 5.3 Final Budget

Description	Budget
Wages and salaries	476,396.75 €
Goods and Services	205,332.00 €
Utilities	16,389.00 €
Capital expenditures	30,000.00 €
Total	728,117.75 €

5.3 Budget Expenditures

To finance the activities carried out in 2019, ERO has spent 699,215.18€.

According to the economic classification, ERO expenditures are as follows:

Tab. 5.4 Expenditures by economic categories

Description	Amount
Wages and salaries	476,396.75 €
Goods and Services	184,955.44 €
Utilities	15,089.99 €
Capital expenditures	22,773.00 €
Total	699,215.18 €

Budget execution in proportion to the remaining budget after cuts is 96.03%.

The degree of realization of the budget according to economic categories, expressed in percentage, is presented in Table 5.5.

Tab. 5.5 Budget execution, expressed in percentage

Description	Budget	Expenditures	Difference	Execution in %
Wages and salaries	476,396.75 €	476,396.75 €	- €	100.00%
Goods and Services	205,332.00 €	184,955.44 €	20,376.56 €	90.08%
Utilities	16,389.00 €	15,089.99 €	1,299.01 €	92.07%
Capital expenditures	30,000.00 €	22,773.00 €	7,227.00 €	75.91%
Total	728,117.75 €	699,215.18 €	28,902.57 €	96.03%

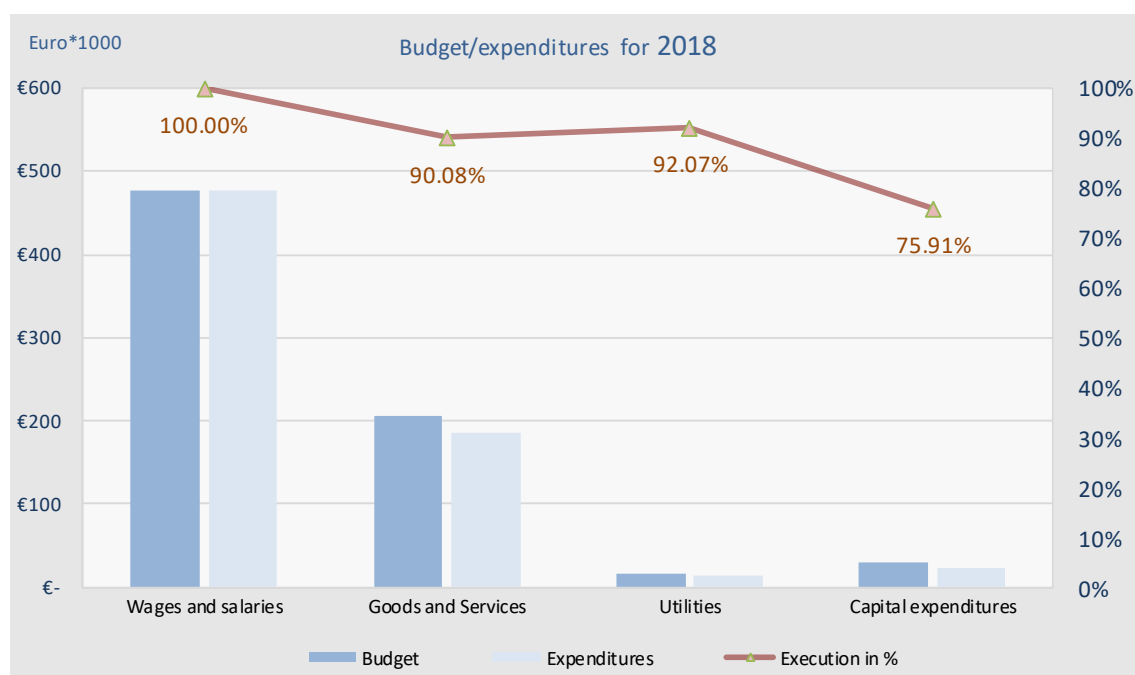


Fig. 5.1 Budget and Expenditures for 2019

The following tables display expenditures by economic codes.

Tab. 5.6 Wages and Salaries

Wages and Salaries	Amount
Net wages	396,181.18 €
Personal Income Tax	34,844.59 €
Employer's pension contribution	22,685.49 €
Employee's pension contribution	22,685.49 €
Total	476,396.75 €

In this category, a total of € 476,396.75 is spent and the all amount was spent on regular salaries of ERO staff. With the exception of allowances (per diems) for official trips abroad, which are paid by goods and services category, ERO does not pay other allowances.

Tab. 5.7 Goods and services

Goods and services	Amount
Other expenditures for official travels within the country	280.00 €
Expenditures for official travels abroad	13,351.33 €
Allowances for official travels abroad	18,883.95 €
Accommodation for official travels abroad	9,375.37 €
Other expenditures for official travels abroad	3,368.12 €
Internet Expenditures	906.88 €
Expenditures for Mobile Telephony	5,143.32 €
Postal expenditures	219.40 €
Education and training services	10,745.00 €
Different intellectual and advisory services	4,273.97 €
Printing services	1,021.50 €
Other contracting services	- €
Membership expenditures	6,560.00 €
Furniture	2,940.00 €
Computer	3,989.70 €
Hardware for IT	1,605.20 €
Other equipment	- €
Office supplies	2,837.42 €
Beverage supply	3,111.90 €
Accommodation	- €
Generator fuels	94.20 €
Vehicle fuel	6,358.35 €
Vehicle registration	420.00 €
Vehicle insurance	771.24 €
Municipal tax for vehicle registration	40.00 €
Security of premises	6,745.20 €
Vehicle maintenance and repair	1,574.20 €
Building maintenance	3,984.31 €
Maintenance of information technology	2,701.00 €
Maintenance of furniture and equipment	- €
Building rent	49,140.00 €
Equipment rent	646.44 €
Machinery rent	11,951.04 €
Advertisements and vacancies	- €
Official dinners	7,056.40 €
Rental tax payment	4,860.00 €
Total	184,955.44 €

As it can be seen from Table 5.7, the amount of funds spent on this category of expenditures is € 184,955.44.

Budget expenditures based on activities are as follows:

Tab. 5.8 Expenditures by activities

Expenditures by activities	Amount
Travel expenditures	45,258.77 €
Telecommunication Services	6,050.20 €
Expenditures for services	22,819.87 €
Purchase of furniture and equipment	8,534.90 €
Other purchases - goods and services	5,949.32 €
Derivatives and fuels	6,452.55 €
Registration and insurance services	7,976.44 €
Maintenance	8,259.51 €
Rent	66,597.48 €
Marketing expenditures	- €
Representation expenditures	7,056.40 €
Total	184,955.44 €

Tab. 5.9 Municipal expenses

Utilities	Amount
Electricity	13,754.21 €
Water	449.48 €
Telephone expenditures	886.30 €
Total	15,089.99 €

Tab. 5.10 Capital expenditures

Capital expenditures	Amount
Information technology equipment	22,773.00 €
Total	22,773.00 €

In this category of expenditures, ERO for 2019 has planned a budget of 72,000.00 €, for the realization of two projects, of which only one has been realized, while the second project in the foreseen value of 42,000.00 €, has not been realized due to non-fulfilment of procurement procedures by the Central Procurement Agency, despite the fact that the initiation of procedures by ERO was done in early 2019.

6 ELECTRICITY SECTOR

6.1 Characteristics of the electricity sector

The energy system in the Republic of Kosovo is composed of electricity generation, electricity transmission, electricity distribution, unregulated customers, as well customers with the right to universal service. Major suppliers and traders are also participants in the electricity market.

Generation is mainly based on lignite power plants (TPP A and TPP B), HC Ujmani which are owned by the Government of the Republic of Kosovo, whereas other HPPs and other RES are privately owned.

KOSTT is the only operator of the transmission and market and is 100% owned by the Assembly of Kosovo. It operates with two separate licenses, a license for operation of the transmission system and a license for market operation. Market Operator is responsible for organizing and developing electricity market, while the Transmission System Operator is responsible for transmitting electricity, operating and maintaining the transmission system, and balancing the system.

KEDS is the only distribution operator but is privately owned. This operator is responsible for the operation and maintenance of the distribution system and the management of generators connected to the distribution system.

KESCO is a supplier that has a license for supply of Public Service Obligation, set forth by the Regulator to supply customers who are entitled to the universal service. In addition, the Regulator has assigned obligation of Last Resort Supplier.

Other suppliers –so far, there are 7 licensed suppliers who are privately owned but have not begun to operate commercially yet.

Kosovo's power system is mainly designed to produce basic electricity, which, as mentioned above, is based on lignite as raw material, but not for maximum load coverage and balancing of the system which remains a major challenge to all participants in the sector.

Kosovo has installed generation capacities of 1,431 MW, including generation capacities from RES, however the operational capacity is considered 1,099 MW, of which lignite thermal power plants (TPP) account for about 87.36%, while the rest consists of HPP Ujmani with 2.91%, wind power plants "Kitka" (Air energy) with 2.95% and other RES (hydro power plants, solar panels and wind power plants) with 6.78%.

These capacities, in most of the period would be sufficient to cover demand as well as to export, but due to power plant aging and insufficient flexibility to accommodate demand at different times, especially at peak times, then imports, and sometimes exports, are required to balance the system. The introduction of generators from RES increases the generation capacity, but in most cases they are unpredictable and are in dispatch priority mode, therefore they do not have an impact on improving the balancing of the power system, and sometimes even increase the imbalances.

The figure below shows the generation, import, export and demand of electricity over the last ten years.

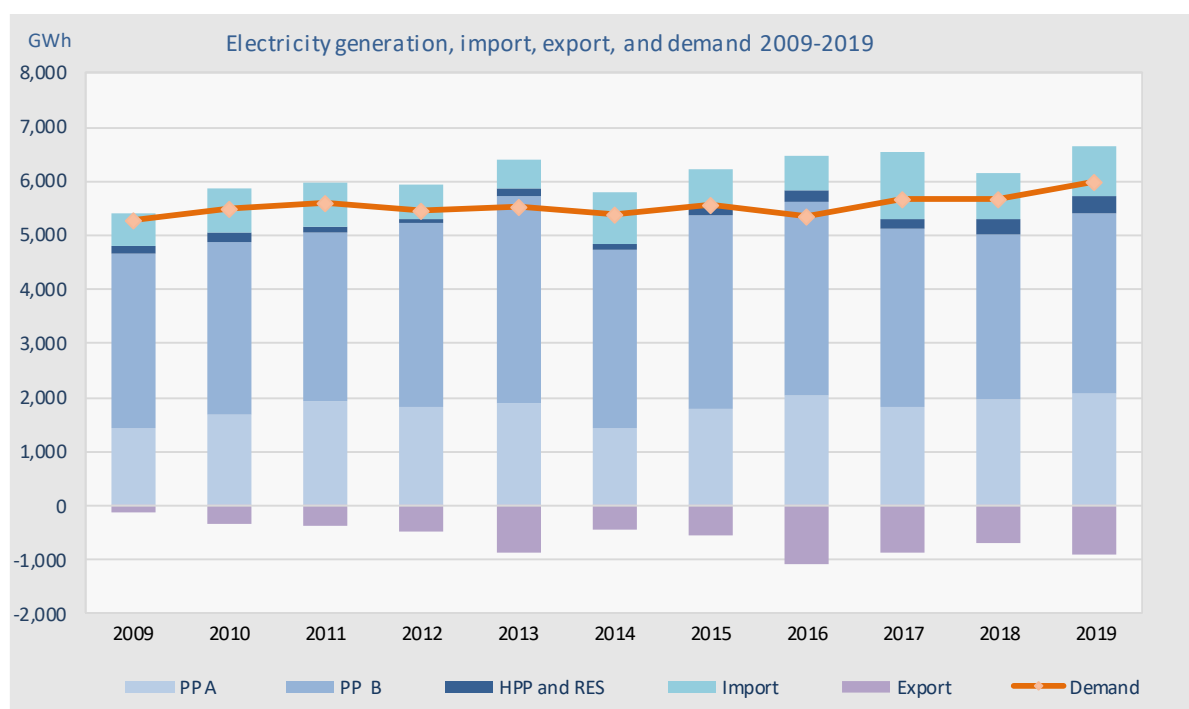


Fig. 6.1 Generation, Import and Electricity Demand 2009 - 2019

6.1.1 Electricity Market

Electricity sector in Kosovo is inextricably linked to the regional market and beyond.

As part of activities for the liberalization of the electricity market is the creation of day-ahead and intraday market stock exchange, as well as market coupling. During 2019, members of working group, such as representatives of the two countries, Kosovo – Albania have held several joint meetings regarding an action plan for carrying out these activities in order to prepare the necessary documents for the formation of the Stock Exchange and market coupling between two countries.

The electricity market in Kosovo includes bilateral electricity trading and trading to balance the electricity system. Based on the legislation in force, electricity generators are obliged to offer their capacity in a transparent, non-discriminatory and market-based manner to all customers in wholesale and retail markets, including those with public service obligations. All customers in the market are entitled to change their supplier.

As mentioned above, due to the low flexibility of the system to meet the demand and the high demand at peak times, there is a need for imports or exports of electricity. From the overall electricity demand at the country level 6,001 GWh (including transmission and distribution losses), most of it is covered by domestic (generators), whereas the rest is covered by electricity imports.

The table below presents system balancing, which shows that during 2019, Kosovo was a net importer.

Tab. 6.1 Balancing of the power system

	Power system Balancing 2019	GWh
1	Production from generators connected in transmission network	5,650
2	Production from generators connected in distribution network	68
3	Import	928
4	Total energy available	6,646
5	Export	905
6	Net import/Export	-24
7	Deviations of the system (exits from the system)	-260
8	Transit	1,696
9	National demand	6,001
10	Losses in transmission	105
11	Consumption of customers connected in transmission network	464
12	LLOMAG Consumption	110
13	Distribution system load	5,322
14	Distribution losses	1,378
15	Nett Consumption in distribution network	3,944

The share of transit in the transmission system network in previous periods has been much higher (even over 50%), but there is a downward trend, especially upon the increase in local demand. In 2019, the share of transit in transmission system network is about 20.2%.

With respect to the operation of the transmission network, it should also be emphasized the KOSTT's inability to allocate transmission capacities due to the non-recognition of KOSTT as a control block/area. Capacity allocation would generate revenues for KOSTT that could be used for maintenance and repair of transmission capacities as well as for the construction of new transmission capacities where there is network congestion. The capacity allocation for Kosovo lines continues to be carried out by the Transmission System Operator of Serbia (EMS), who also collects financial revenues from this allocation.

The implementation of the signed electricity agreement between Kosovo and Serbia has not been implemented yet, although it has been foreseen since November 2015, which would regulate the functioning of KOSTT as a regulatory area / block, capacity allocation, etc.

Regarding the security of supply of electricity customers is required regular operation of the transmission network, distribution and generation network, including import and export of electricity.

Figure 6.2 shows the flow of electricity from generation, transmission up to the distribution to customers, as well as electricity flows towards regional networks and from regional networks including transit.

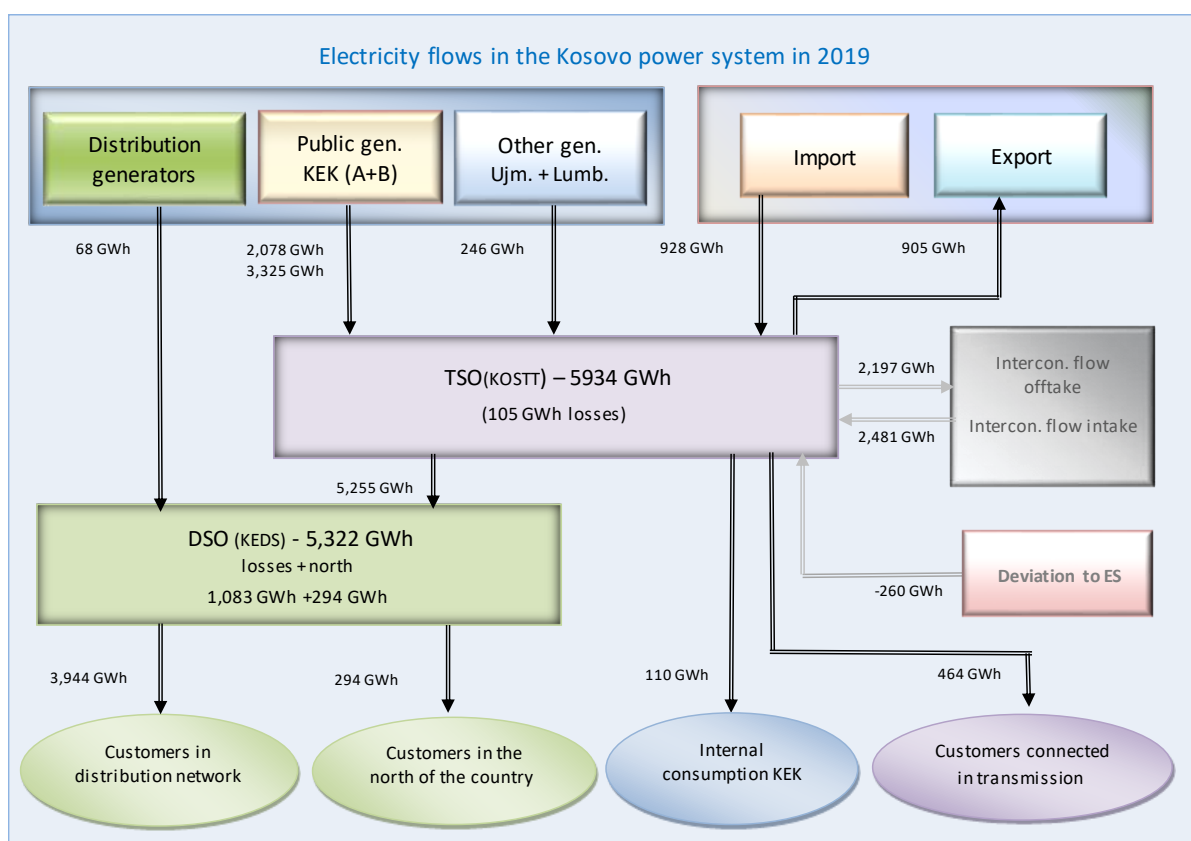


Fig. 6.2 Electricity flows in the system in 2019

6.1.2 Generation Adequacy and Security of Supply

Local generation is not sufficient to cover the maximum load on Kosovo's power system, but it is worth to emphasize that electricity generation along with imports meet the national electricity demand.

The overall generation capacity of generators in Kosovo is 1,099 MW, while the maximum load during this year was 1,253 MW, therefore the ratio of the generation adequacy towards the maximum load is 87.7 %.

The table below shows maximum and minimum monthly loads during 2019.

Tab. 6.2 Maximum and Minimum Loads in 2019

Load 2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	MWh/h	MWh/h	MWh/h	MWh/h	MWh/h	MWh/h	MWh/h	MWh/h	MWh/h	MWh/h	MWh/h	MWh/h
Maximum	1,178	1,105	1,003	887	915	810	759	805	776	927	939	1,253
Minimum	618	535	458	364	327	289	332	349	313	348	417	545

It is worth emphasizing that the maximum loads occur during the winter season due to consumption of electricity for heating.

Adequacy of the transmission system contains sufficient reserves to enable the flow of electricity to meet the local demand, including the coverage of the maximum load (peak), as well as to enable transit through interconnection lines.

The table below shows the maximum and minimum loads (P_{\max} and P_{\min}) of the Kosovo power system over the years, their time of occurrence, generation, and the respective import and export of electricity.

Tab. 6.3 Maximal and Minimal Power System Loads

Year	Maximum load							Minimum load						
	Pmax			Production	Import	Export	Deviation*	Pmin			Production	Import	Export	Deviation*
	[MW]	Data	Ora	[MW]	[MW]	[MW]	[MW]	[MW]	Data	Ora	[MW]	[MW]	[MW]	[MW]
2015	1,129	31.12	20:00	825	308	0	-4	272	30.08	04:00	250	0	50	-72
2016	1,160	31.12	18:00	797	321	0	42	246	12.06	06:00	711	0	310	155
2017	1,161	11.01	20:00	660	415	0	86	286	3.06	06:00	733	50	440	57
2018	1,203	31.12	18:00	787	271	0	145	265	27.06	06:00	577	5	430	-113
2019	1,253	31.12	18:00	861	348	16	60	289	7.06	06:00	435	15	140	21

* Deviation of the system towards the interconnection system

In order to cover the losses, during 2019, electricity continued to be purchased by the Transmission System Operator and Distribution System Operator in the competitive electricity market. The energy required to cover the losses in the transmission and distribution network is provided proportionally by the remaining energy from KEK after the allocation of energy for the universal service. If the energy received from KEK is not sufficient to cover the losses, then the rest of the required energy is provided by import.

6.2 Primary Energy Sources

Kosovo has large reserves of lignite as a primary source of energy, which enables a long-term production of electricity, but remains an environmental issue due to greenhouse gas emissions and other pollutants. Also, our country has the potential of RES such as: water energy, wind energy, solar energy, biomass, etc.

6.2.1 Lignite Production and Consumption

Lignite production in 2019 was 8.06 mil. ton, while consumption 8.38 mil. ton, these quantities are larger compared to 2018.

Lignite production and consumption by months, for 2019 is presented in Table 6.4.

Tab. 6.4 Lignite production and consumption in 2019

Lignite production/consumption	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lignite production (t*1000)	8,063	664	798	807	788	525	421	505	580	758	759	855	603
Lignite consumption (t*1000)	8,382	861	755	859	604	541	491	603	635	654	809	780	790
Lignite consumption in the market	266	19	23	20	17	23	23	21	24	27	27	23	19

The following figure shows the production and consumption of lignite during 2009 - 2019.

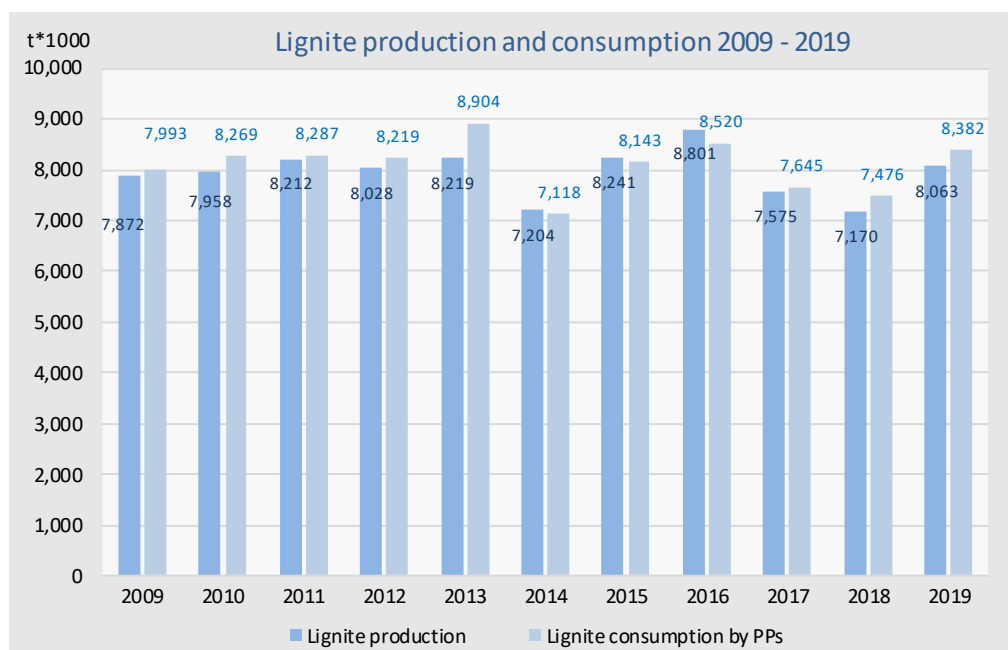


Fig. 6.3 Production and consumption of lignite in the years 2009 - 2019

6.3 Electricity Generation

6.3.1 Electricity Generation Capacities

Electricity generation capacities in Kosovo are mainly from power plants which account for 90.02% of the installed capacity or 87.36% of the operating capacity, and the rest are hydropower plants and renewable energy sources (hydropower plants, wind farms and photovoltaic panels).

The capacity of the generating units is presented in the following table according to the type of primary source, installation and operational capacity, minimum and maximum production limits and the year of operation.

Tab. 6.5 Generation capacities in Kosovo's electricity system

Manufacturing units	Unit Capacity (MW)			Entry into operation
	Installed	Net	Min/max	
PP Kosova A1	65	Not functional		1962
PP Kosova A2	125	Not functional		1964
PP Kosova A3	200	144	100-130	1970
PP Kosova A4	200	144	100-130	1974
PP Kosova A5	210	144	100-135	1975
PP Kosova A	610	432		
PP Kosova B1	339	264	180-260	1983
PP Kosova B2	339	264	180-260	1984
PP Kosova B	678	528		
HPP Ujmani	35.00	32.00		1983
HPP Lumbardhi	8.08	8.00		(1957) 2006
HPP Dikanci	4.02	3.34		(1957) 2013
HPP Radavci	1.00	0.90		(1934) 2010
HPP Burimi	0.95	0.85		(1948) 2011
Total HPP (outside the support scheme)	49.05	45.09		
EGU Belaja	8.06	8.06		2016
EGU Deçani	9.81	9.81		2016
HPP Hydroline-Albaniku III	4.27	4.27		2016
HPP Brod II	4.80	4.80		2015
HPP Restelica 1&2	2.28	2.28		2016
HPP Brodi III	4.70	4.70		2016
HPP Brezovica	2.10	2.10		2017
HPP Orqusha	4.00	4.00		2019
HPP Lepenci 3	10.00	10.00		2019
Wind Power	1.35	1.35		2010
Air Energy-Kitka	32.40	32.40		2018
PV LedLight Technology	0.10	0.10		2015
PV ONIX SPA	0.50	0.50		2016
PV Birra Peja	3.00	3.00		2018
PV Frigo Food Kosova	3.00	3.00		2018
PV Eling	0.40	0.40		2019
PV SGE	3.00	3.00		2019
Total RES (in the support scheme)	93.77	93.77		
Total	1,430.82	1,098.86		

In recent years there has been an increase in the installed generation capacity of RES, which continues to operate as private investment.

6.3.2 Electricity Generation

Overall electricity production in 2019 was 5,718 GWh, whilst in 2018 it was 5,311 GWh, which means that there is an increase of 7.7%. Whereas, compared to the electricity balance for 2019, the

production is about 100.4%. Production including own expenditures by units and months during 2019 is presented in Table 6.6.

Tab. 6.6 Electricity flows in the system in 2019

Generation MWh	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PP A3 gross	480,607	53,486	99,208	92,632	0	0	0	0	0	38,339	53,890	62,209	80,844
PP A4 gross	902,513	48,481	2,178	106,821	76,224	69,197	102,018	109,452	104,914	84,429	89,860	95,680	13,258
PP A5 gross	983,352	103,544	85,548	20,014	108,590	108,656	58,449	111,611	89,490	106,738	55,234	25,310	110,166
PP A Own consump.	288,186	26,756	24,590	26,144	22,456	21,909	18,890	25,449	23,252	27,887	23,585	22,061	25,207
PP A threshold	2,078,286	178,755	162,344	193,323	162,358	155,944	141,578	195,615	171,152	201,620	175,398	161,138	179,061
PP B1 gross	2,197,730	213,445	193,807	213,132	146,196	217,275	194,766	199,422	211,817	41,276	207,255	191,527	167,811
PP B2 gross	1,478,370	207,993	168,232	193,618	100,464	0	0	0	31,673	208,940	175,010	196,105	196,335
PP B Own consump.	350,632	39,080	39,930	37,739	24,010	19,735	18,523	18,687	22,587	22,757	36,042	36,515	35,029
PP B threshold	3,325,468	382,358	322,109	369,011	222,650	197,540	176,243	180,736	220,903	227,459	346,223	351,117	329,118
HPP+RES Transmissi	246,088	15,657	18,842	21,596	25,954	29,632	23,395	17,842	18,277	17,989	9,821	25,448	21,633
RES Distribution	67,965	1,540	3,430	5,774	8,759	12,388	12,259	5,613	3,184	2,150	2,087	4,153	6,629
Total	5,717,806	578,309	506,725	589,704	419,722	395,503	353,476	399,806	413,516	449,218	533,530	541,856	536,442
Balance 2019	5,696,334	564,230	515,533	603,493	406,245	338,507	369,308	372,847	381,574	550,125	533,300	503,277	557,895
Report tot./bil	100.4%	102.5%	98.3%	97.7%	103.3%	116.8%	95.7%	107.2%	108.4%	81.7%	100.0%	107.7%	96.2%

It should be emphasized that 11.82% of the electricity from the gross production of power plants is consumed by the power plants themselves as own costs. Part of this consumption (for both generators TPP Kosova A and TPP Kosova B) is realized directly from the plants, while the rest is exported into the transmission system and then consumed by the power plants.

The figure below presents the participation of generators in the overall electricity generation in 2019.

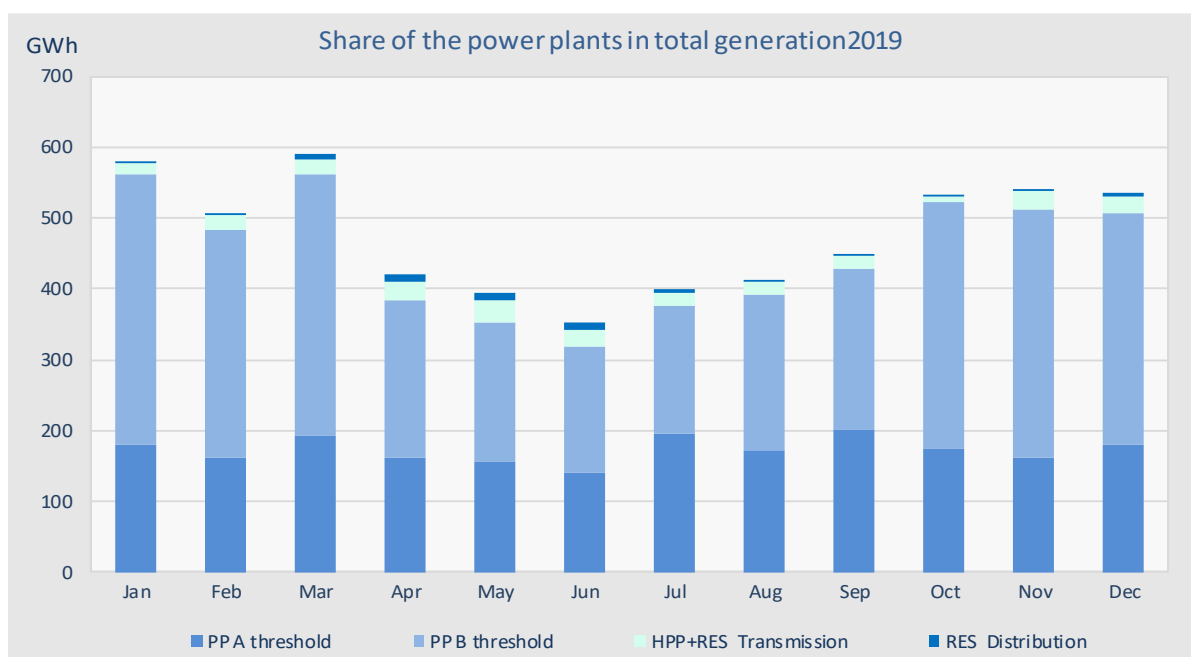


Fig. 6.4 Production of generating units in 2019

The production of RES connected to the transmission network in 2019 was 246.1 GWh and is higher by 0.4% compared to 2018 year. While the production of RES connected to the distribution network

was 67.9 GWh in 2019, and is higher compared to 2018 by 16.8%, since two photovoltaic generators and three hydro-generators with a total capacity of 22.08 MW have been put into operation.

The following tables present electricity generation from RES connected to the transmission network, respectively to the distribution network.

Tab. 6.7 Generation from RES connected to the transmission network in 2019

RES in transmission	Installed capacity	Generation	Share in generation*
	MW	MWh	%
HPP Ujmani	35.00	82,891	33.68
HPP Kaskada Lumbardh	25.95	72,661	29.53
Air Energy/Kitka	32.40	90,535	36.79
Total RES	93.35	246,088	100%

* The share of generating units in the production of RES in transmission

Tab. 6.8 Generation from RES connected to the distribution network in 2019

RES in distribution	Installation capacity	Generation	Share in generation*
	MW	MWh	%
Hydroline	4.27	8,150	11.99
Dikanci	4.02	8,413	12.38
Radavci	1.00	3,464	5.10
Burimi	0.95	1,197	1.76
Eurokos-JH	4.80	23,292	34.27
HPP Brezovica	2.10	3,673	5.40
HPP Orqusha	4.00	4,047	5.95
HPP Lepenci 3	9.99	5,135	7.55
Me ere	1.35	113	0.17
Solar-C	0.10	118	0.17
Solar-Feti	0.10	92	0.13
Solar Onix	0.50	685	1.01
Solar Birra Peja	3.00	4,130	6.08
Solar Frigo Food	3.00	4,128	6.07
Centrali solar"Eling"	0.40	537	0.79
Centrali Solar Green Energy	3.00	790	1.16
Total RES	42.58	67,965	100%

* The share of generating units in the production of RES in distribution

Operation of generating units

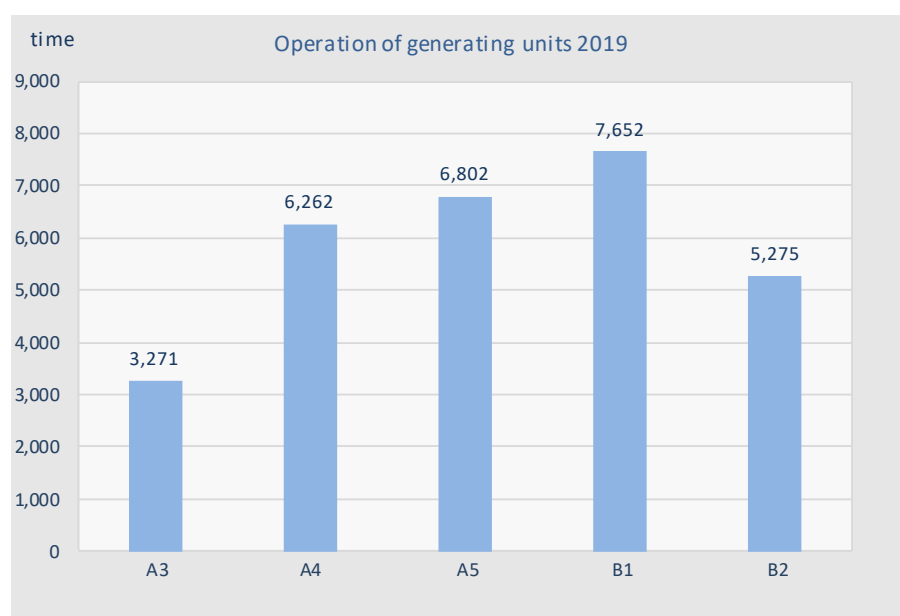
The operation of generating units of TPP Kosova A and TPP Kosova B, during 2019 has been close to the forecasts in the energy balance. The largest share in the total production is from TPP Kosova A and TPP Kosovo B, which have also realized a generation close to the forecasts in the energy balance, and have had high availability at work by completing the hours in operation, approximately according to the forecast in the balance sheet.

Compared to last year, the number of declines from the operation of lignite generating units has been smaller. The table below shows all types of discontinuations and the availability of power plants for 2019, where it is noted that the generating units TPP Kosova A3 and TPP Kosova A4 have never interrupted from the system.

Tab. 6.9 Interruptions of Generating Units 2019

2019	PP Kosova A			PP Kosova B	
	A3	A4	A5	B1	B2
Planned interruptions	3	3	3	2	1
Unplanned interruptions	4	5	1	8	7
Failures	0	0	2	2	7
Total interruptions	7	8	6	12	15
Working hours	3,271	6,262	6,802	7,652	5,275

The operation hours of the generating units of TPP Kosova A and TPP Kosova B in graphical form are shown in the figure below and were lower than planned, especially for Unit B1 which worked only 87.4% of the year, whereas Unit B2 worked around 60.2% of the year.



Pic. 6.5 Operation of Generation Units in 2019

The figure below presents the production of generating units for the period 2009 – 2019.

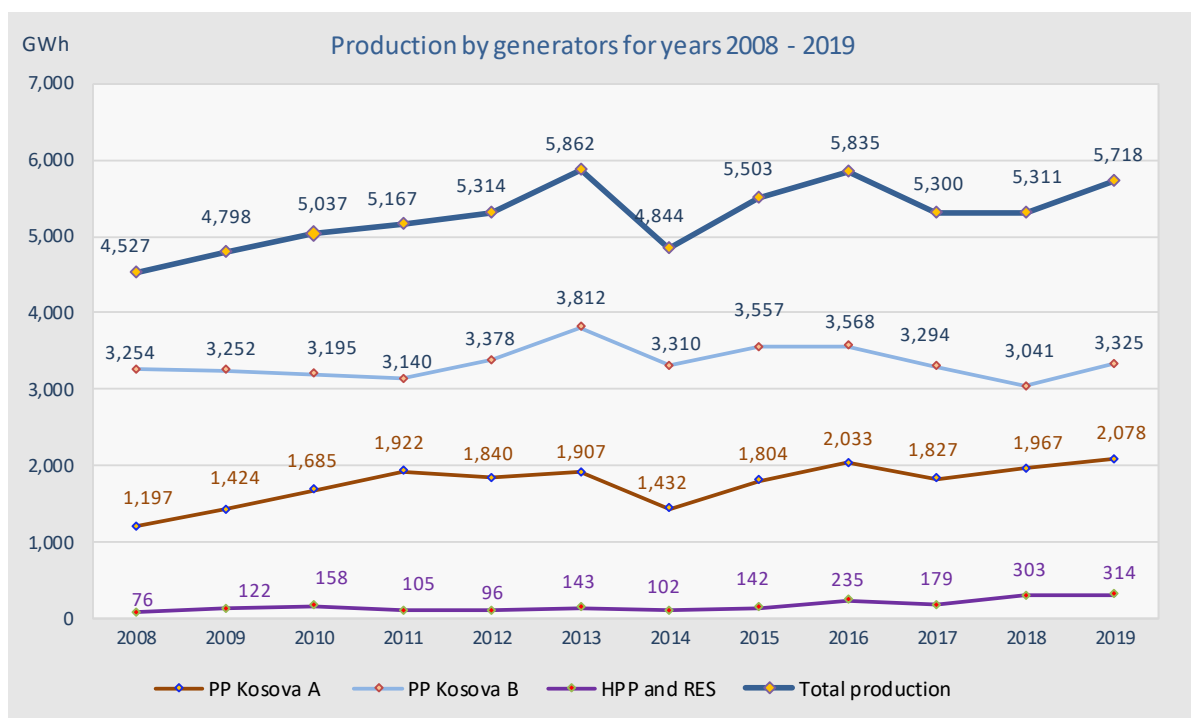


Fig. 6.6 Electricity generation 2009 – 2019

6.4 Transmission System

Kosovo transmission system is operated by KOSTT, who is responsible for the safety and reliability of energy system operation. The transmission network has sufficient capacity to withstand the power flows in the system.

The transmission network of the Kosovo power system is well connected to the regional and European system through interconnection lines with:

- Albania, Macedonia, Montenegro and Serbia – line 400 kV;
- Albania and Serbia – line 220 kV; and
- Serbia – with two lines 110 kV.

Interconnection line 400 kV SS Kosova B - SS Kashar (Tirana) was finalized in 2016 including successful testing phase, but due to political reasons has not started the regular operation yet.

The agreement signed for secondary regulating frequency/power between KOSTT and OST in Albania also remains unimplemented since KOSTT has not yet begun to operate as a regulatory area/block within ENTSO-E.

Transmission network of Kosovo energy system is well-connected to the regional system and meets the domestic transmission needs and criterion N-1, except the line Prizren 2 – Rahovec, which remains with radial supply.

The transformation capacities and transmission network lines by voltage level are shown in the following tables:

Tab. 6.10 Substations in transmission network

Transformation (kV/kV)	Owner	No. of SS	No. of TR	Power (MVA)
400/220	KOSTT	1	3	1200
400/110	KOSTT	2	4	1200
220/110	KOSTT	3	9	1350
220/35	Feronikel	1	2	320
220/35/10(20) (Besiana)	KOSTT	1	1	40
220/10(20) (Besiana)	KOSTT	-	1	40
220/10(20)	KOSTT	1	2	80
110/35/10(20)	KOSTT	6	7	277.5
110/35/6.3	Trepça	1	2	126
110/6.3	Trepça	-	2	63
110/35	Ujmani	1	1	20
110/6.3	Sharri	1	2	40
110/10(20)	KOSTT	14	26	949.5
110/35	KOSTT	7	19	641
110/10	KOSTT	2	8	252
35/110 (Deçan)	Kelkos	-	1	40
Total		41	90	6,639

Tab. 6.11 Transmission network lines

Voltage (kV)	Owner	Length (km)
400	KOSTT	279.5
220	KOSTT	240.8
110	KOSTT	892.5
Total		1,412.8

The scheme below provides basic information on the number of substations (SS), transformers (TR) and transformer installation power, line length, as well as power plants connected to the appropriate voltage level.

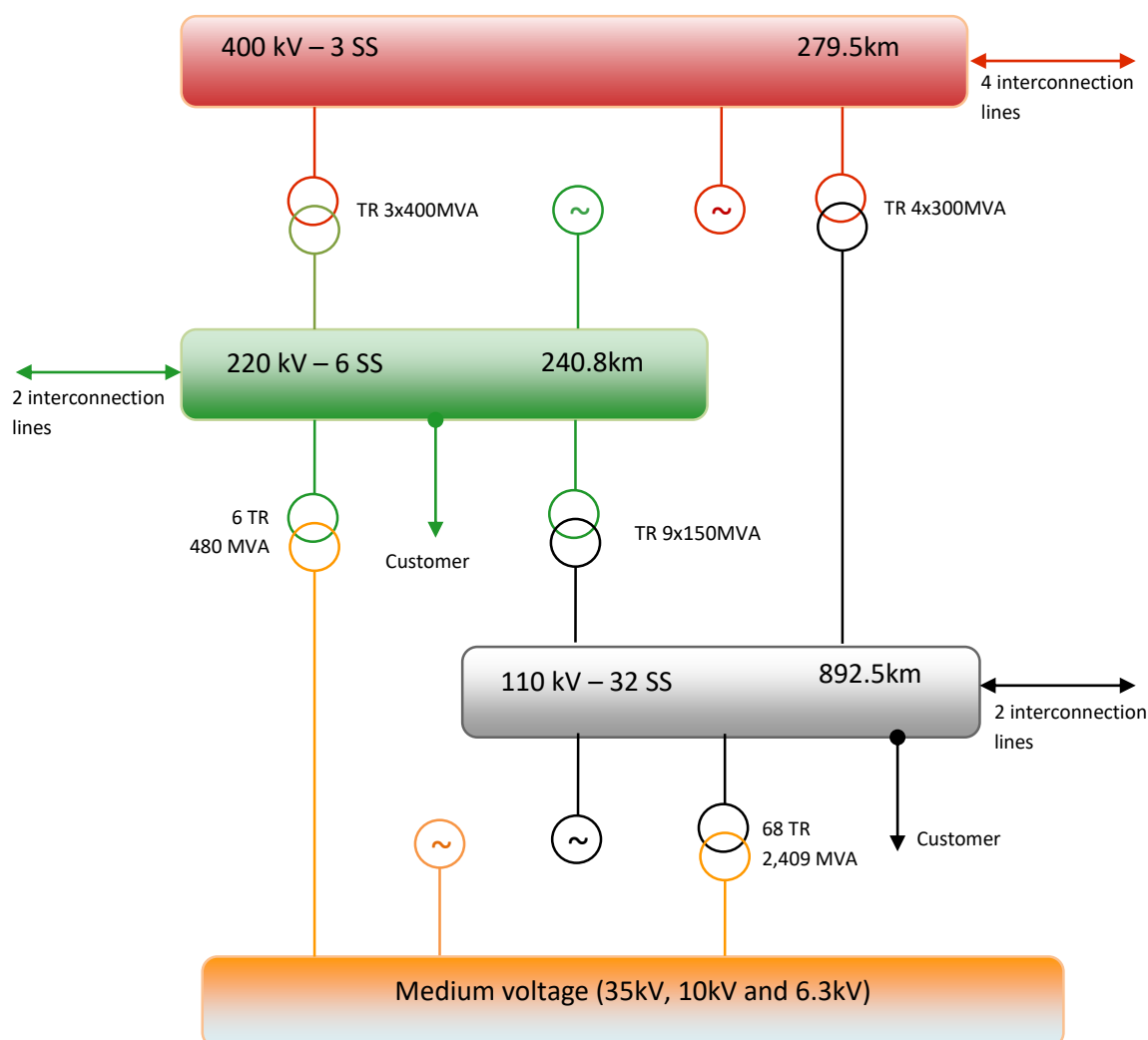


Fig. 6.7 Basic data of transmission network

6.4.1 Electricity flows in transmission systems

The transmission network has considerable electricity flows to cover customer demand from domestic generation and import but also for possible exports of electricity surpluses, and also for electricity transited towards other countries.

Electricity transit through the Kosovo network in 2019 was about 28.3% compared to the demand, and this energy charges the network by increasing losses, depreciation of the network, and the need to maintain the transmission network. Compensation for transit network loading is done through the ITC Mechanism.

The following figure shows the energy flows through all interconnection lines in both directions (input, output).

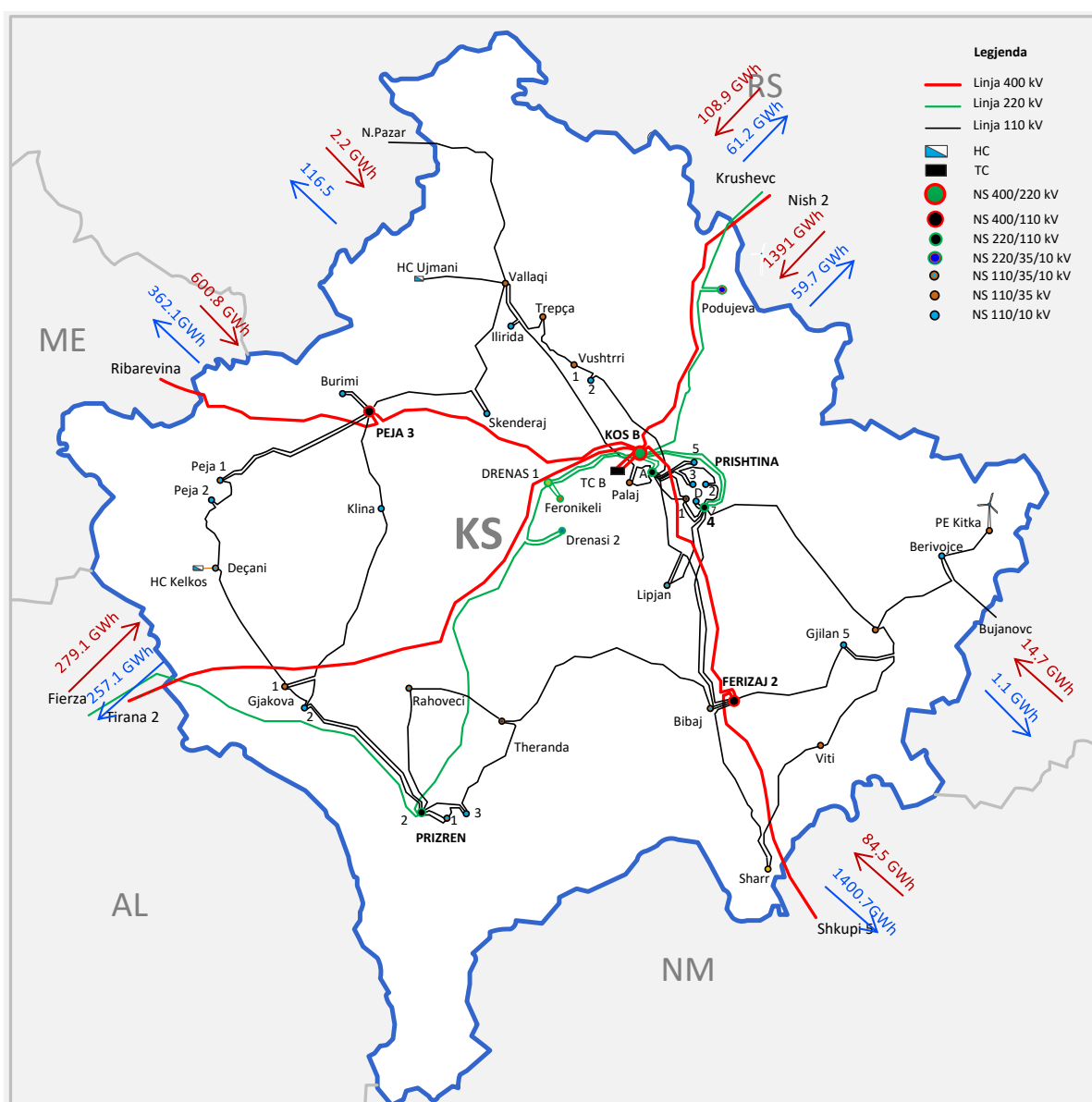


Fig. 6.8 Energy Flows through Interconnection Lines

6.4.2 Investments in transmission system

During 2019, investments were made in the transmission network to support load and generation. Below are the main projects divided into:

Projects completed in 2019 which have one-year valid warranty period

In Q3 of 2016 year, contracts were signed for projects, financed by EBRD / KOSTT and which were completed during 2019. These projects are in the one-year guarantee period.

- Construction of new GIS sub-stations with two 2x40MVA transformers and transmission lines /cables:
 - 110/10(20) kV – SS Prishtina 6 (Dardania) and two fields 110 kV HIS in NS Prishtina 4
 - 220/10(20) kV – SS Drenasi 2

- 110/10(20) kV – NS Mitrovica 2 (Ilirida)

Projects that are ongoing and should be completed in 2020

The continuity of works is until Q2 2020 for projects:

- Line 110 kV Single OH line SS Rahoveci – SS Theranda (80% completed),
- Double Line 110 kV and cable line from the point of intersection of the line TPP Kosova A – SS Lipjan, up to SS Fushe Kosovo, (15%)

** Due to delays in obtaining construction permits, there are delays in the implementation of contract-based projects.

Projects which had started in 2018/2019 and are ongoing, but should be completed in 2022:

- Construction of connection to the city network of water and sewerage in SS Prizren 1, SS Prizren 3, SS Lipjani, SS Viti, SS Ferizaji 1 (in continuation for other NS);
- Renovation of Command Buildings in: SS Deçani, SS Lipjani, SS Burim, SS Viti, NS Prishtina 3, SS Prizreni 3, SS Gjakova 2, SS Besiana, SS Vitia, SS Gjakova 1 (in continuation for other NS);
- Supply with spare parts for tightening and hanging lines, OPGW, joint-box and other accompanying equipment;
- Supply with spare parts for sub-stations;
- Execution of uninterrupted supply of secure operating infrastructure system of the real-time transmission of SO;
- Supply with digital wall monitor of QND and dismantling the existing monitor in QND;
- Supply with hardware;
- Supply with equipment for adoption of SCS functions;
- Purchase of Software DLP and of Database Audit Software.

These projects are funded by KOSTT.

6.4.3 Maximum Load and Electricity Demand in Power System

In order to analyze the functioning of the power system, the value of maximum load (peak) is also important, and this usually takes as a sample five (5) maximum loads realized in different hours and different days of the year. The following table shows the maximum load (peak) values for 2019.

Tab. 6.12 Energy Flows through Interconnection Lines 2019

Maximum load Pmax (MW)	Date	Time
1,253	12/31/2019	18:00
1,193	12/29/2019	18:00
1,178	1/8/2019	18:00
1,177	1/4/2019	18:00
1,138	1/14/2019	18:00

The maximum load in the Kosovo power system was recorded at 31 December 2019 at 18:00 in the amount of 1,253 MW, which is higher than the maximum load in 2018 year (1,203 MW).

The demand varies in daily and seasonal periods, and due to this change, balancing the system is hampered. To see this impact, especially in the case of Kosovo power system, it is important to analyse the daily consumption chart for each hour of the day for the entire annual period.

The below chart shows the demand and generation, which shows that the generation is higher than the demand during night hours, whereas during the day, especially at evening hours, demand has a significant increase and is higher than generation. So, within the same day, in the daylight hours (high tariff) generation does not cover the demand and electricity needs to be imported, while at night (low tariff) there is surplus of energy that should be exported.

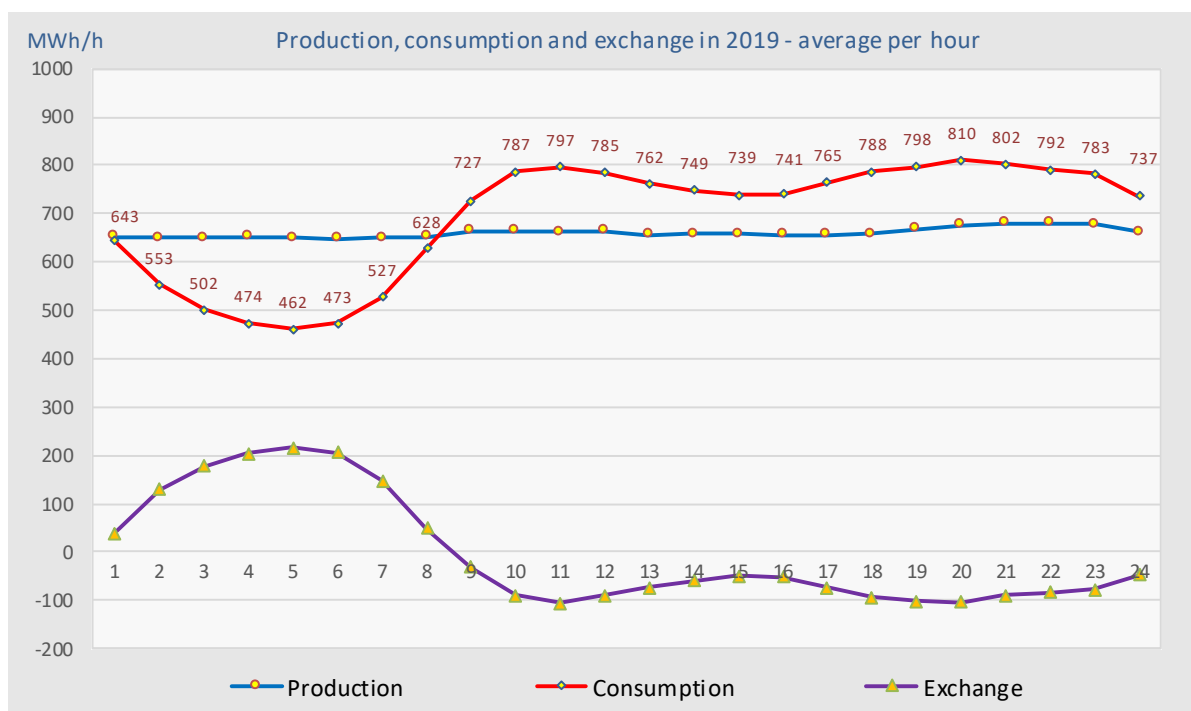


Fig. 6.9 Daily diagram as annual average for hours per 2019

The difference between the average of maximum and minimum daily consumption, during the months of 2019 is shown in the chart below.

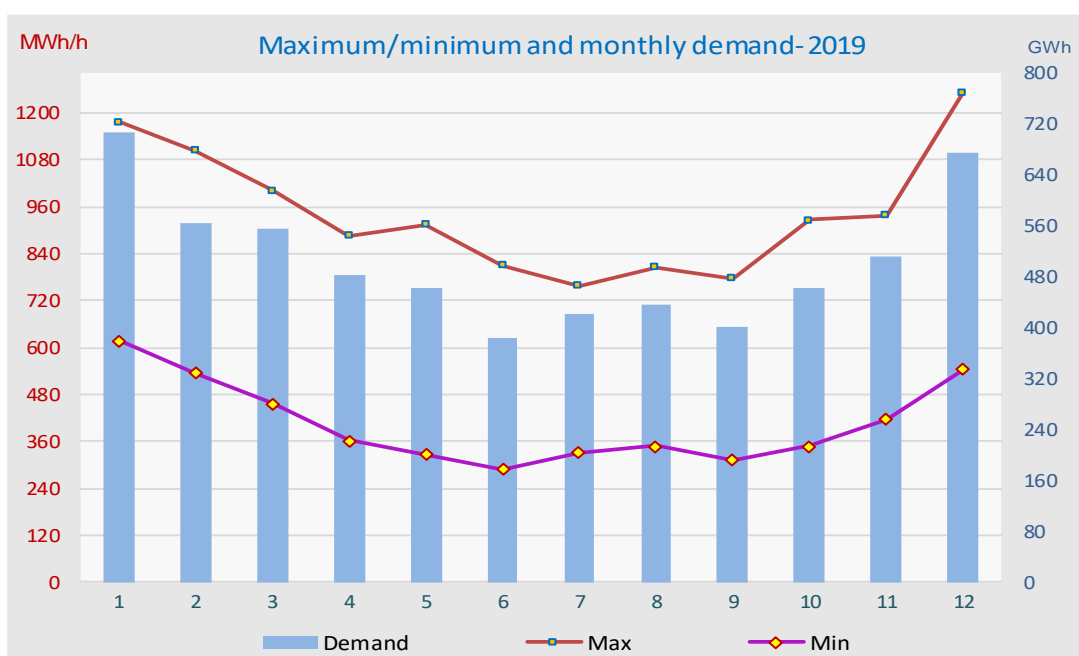


Fig. 6.10 Monthly average demand and maximum / minimum daily loads 2019

The difference between production and total demand can be seen in the following diagrams both on daily and seasonal basis. The diagrams show the characteristic months January - winter season and July - summer season. As well, from the diagrams is seen that every day there are imports and exports of electricity with the regional system, depending on local production and consumption. Consumption fluctuations are on a daily basis, while there are also differences between demand in the winter-summer season, the average maximum above 1000 MWh / h in January, and between 600-700 MWh / h in July.

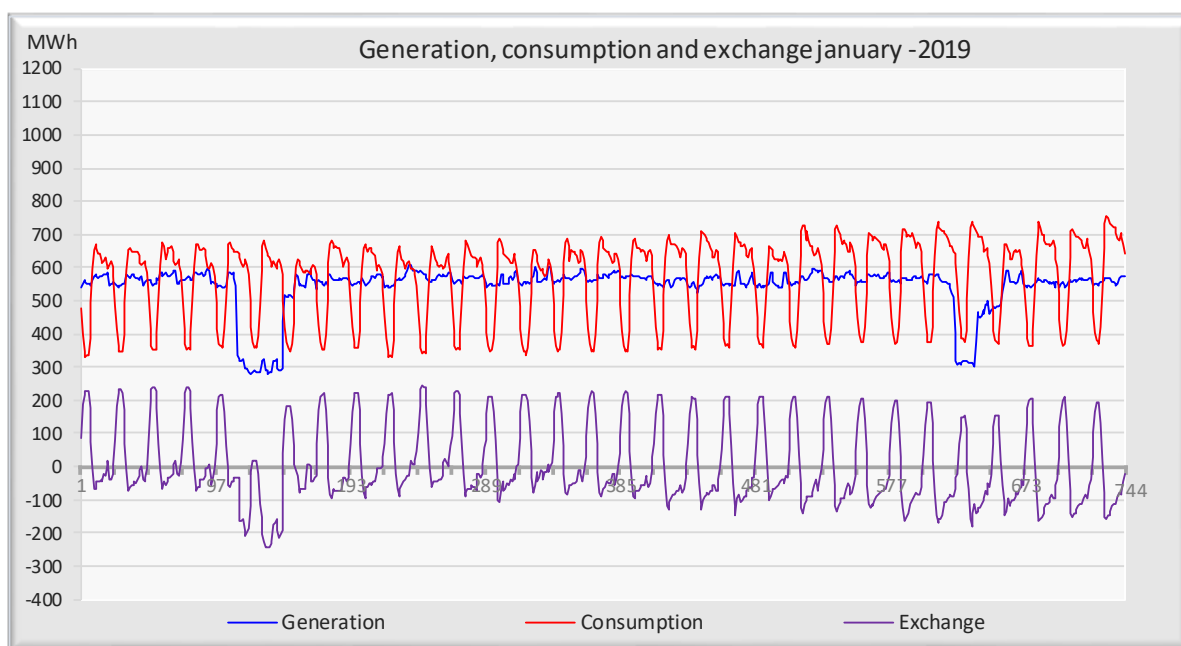


Fig. 6.11 Realization of hours of finding, consumption and exchange, January 2019

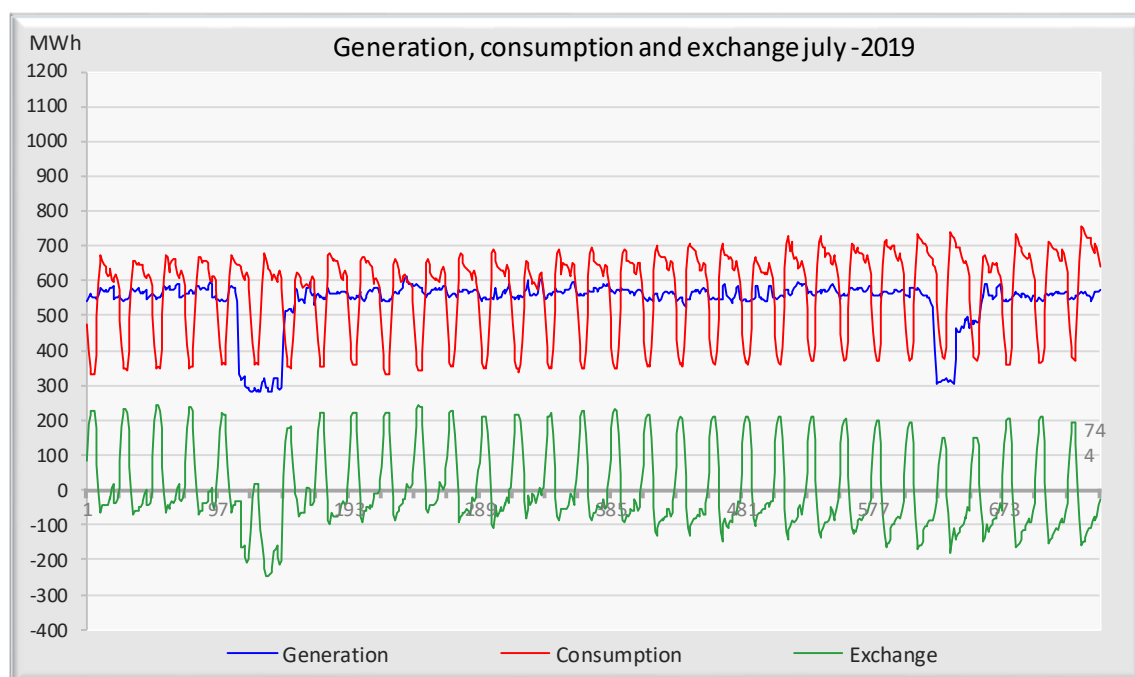


Fig. 6.12 Real-time production, consumption and exchange, July 2019

Shortages due to lack of electricity

Despite the efforts to eliminate supply outages due to power shortages, electricity reductions have been made over the years. At the end of 2018, ERO Board issued a decision to ban reductions for lack of energy, except in cases when the facilities are endangered, therefore in 2019 there were no reductions for lack of electricity.

The table below shows the monthly electricity outages over the years.

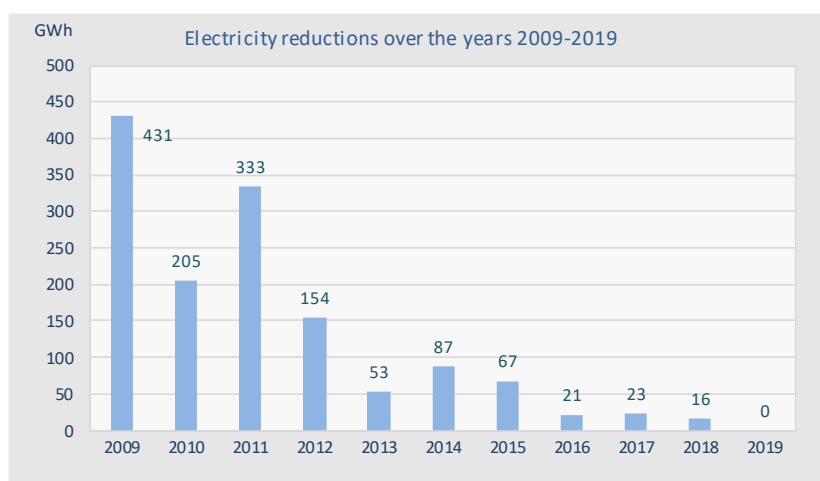


Fig. 6.13 Consumption reductions over the years 2009 - 2019

6.4.4 Electricity Demand and Transmission System Losses

The total electricity demand in 2019 was 6,001 GWh and represents a considerable decrease of 5.8 % compared to 2018, which was 5,671 GWh, while compared to the forecast of electricity balance for 2019, the electricity demand is 1.19 % lower.

Table 6.13 shows the total demand and transmission losses realized in 2019 and compared to electricity balance 2019.

Tab. 6.13 Overall demand and losses in the transmission system in 2019

2019	Gross demand Realization	Gross demand Balance	Realis./Balance Ratio	Losses in transmission realisation		Losses in Transmission Balance	
	MWh	MWh	%	MWh	%	MWh	%
January	696,427	669,672	104.00	13,753	1.97	12,675	1.89
February	556,085	594,769	93.50	9,791	1.76	11,127	1.87
March	549,544	550,690	99.79	10,450	1.90	13,036	2.37
April	479,939	478,081	100.39	8,473	1.77	8,068	1.69
May	464,029	424,842	109.22	6,910	1.49	7,146	1.68
June	388,948	403,144	96.48	6,225	1.60	7,276	1.80
July	416,678	430,868	96.71	6,337	1.52	7,935	1.84
August	429,125	444,789	96.48	6,688	1.56	8,388	1.89
September	389,873	416,327	93.65	6,239	1.60	11,101	2.67
October	456,911	478,523	95.48	8,103	1.77	10,682	2.23
November	504,932	548,713	92.02	9,175	1.82	11,017	2.01
December	668,711	632,886	105.66	13,345	2.00	12,242	1.93
Total	6,001,202	6,073,305	98.81	105,489	1.76	120,692	1.99

The electricity demand has been steadily rising until 2011, whereas starting from 2011 the demand is stabilized, with small fluctuations from year to year, and in the last year an increase is noticed that can be seen in the following figure.

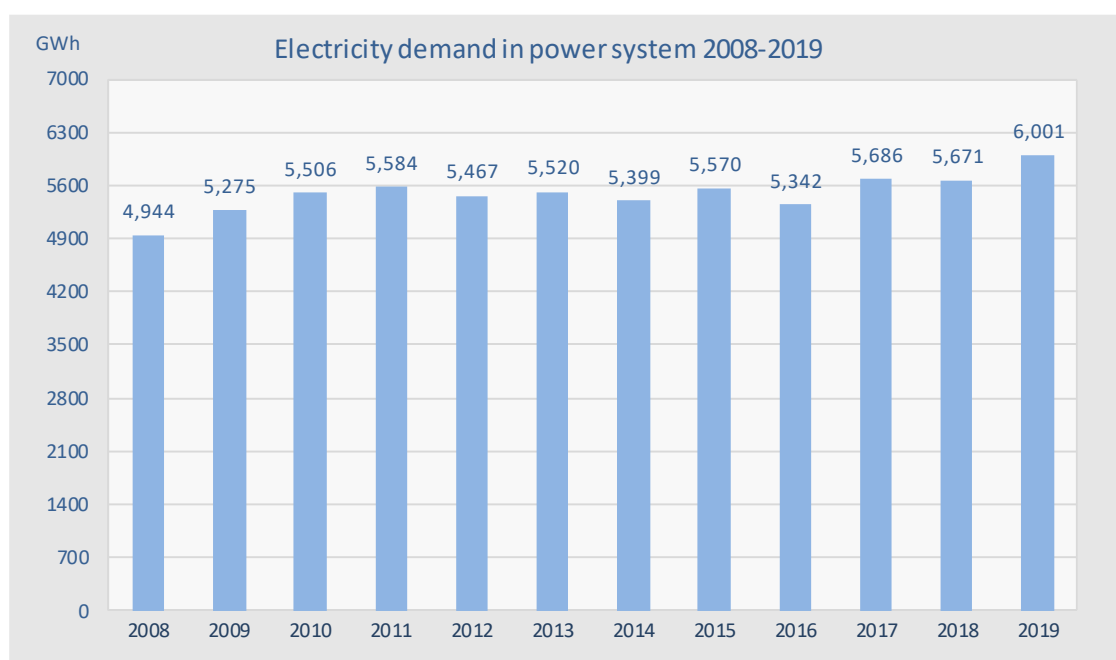


Fig. 6.14 Overall demand in the power system 2009-2019

The total electricity demand is divided into the consumption of customers connected to the transmission network, consumption in the distribution system (including losses), own-consumption

for generation plant needs, and transmission losses, as shown in the table below divided by categories for 2019.

Tab. 6.14 The demand by categories and energy losses

Electricity demand 2018	Total
	MWh
Gross consumption in distribution*	5,321,999
Ferronikeli	371,177
Trepça + Sharrceci	92,933
KEK internal consumption	109,604
Losses in transmission	105,489
Total demand	6,001,202
KEK own consumption from transmission	135,411

*Electricity received in distribution from transmission + generation in distribution

The value of electricity for own expenses in 2019, received from the transmission network is 108 GWh for generators of TPP Kosova A and 27 GWh for TPP Kosova B, or a total of 135 GWh.

Electricity demand varies according to the consumption period, but also according to customer categories and this is shown in the following table, including the losses in the transmission and distribution network (technical and commercial losses).

Tab. 6.15 Share of different categories in the overall demand 2019

2019/GWh	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Household consumption	2,515	289.4	223.2	230.2	199.7	198.1	173.2	177.8	189.3	164.8	188.6	206.0	275.2
Commercial consumption	1,020	101.2	89.0	84.9	75.2	74.9	74.6	85.7	90.6	77.1	78.5	84.9	103.1
Industrial consumption	873	72.2	50.8	77.1	74.4	76.1	69.8	77.9	78.4	69.1	80.8	74.9	72.2
Commercial losses	694	105.0	101.1	72.7	60.7	54.2	23.4	24.2	19.5	27.6	44.2	63.4	98.0
Technical losses	684	103.6	71.8	63.4	52.2	46.4	35.2	37.2	37.2	36.0	46.7	56.7	97.1
Losses in transmission	105	13.8	9.8	10.4	8.5	6.9	6.2	6.3	6.7	6.2	8.1	9.2	13.3
KEK internal consumption	110	11.3	10.3	10.9	9.3	7.5	6.5	7.5	7.5	9.1	10.0	9.9	9.8
Total	6,001	696.4	556.1	549.5	479.9	464.0	388.9	416.7	429.1	389.9	456.9	504.9	668.7

Table 6.16 shows the change of demand by months. In some categories this change is quite high, such as household consumption and commercial losses that are higher in the winter season, which is mainly due to the consumption of electricity for heating.

Losses in the transmission system, which a considerable period (2011-2019) are at an acceptable level owing to investments made by KOSTT. Losses in the Kosovo transmission network are approximately the same as the losses in transmission networks in the region and Europe. Figure 6.15 shows the share of losses in the transmission network towards the overall demand of the Kosovo power system.

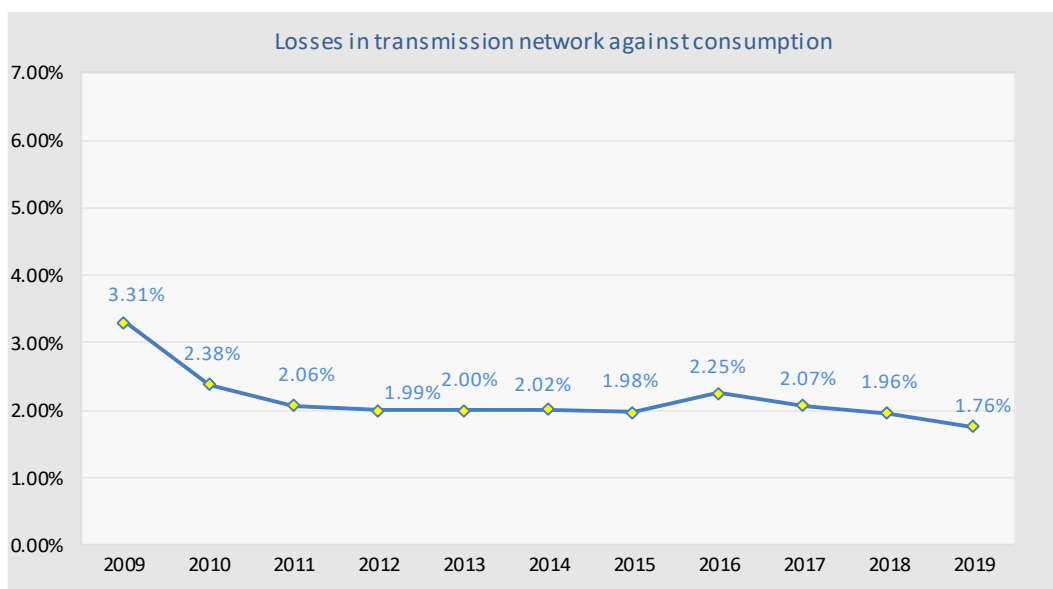


Fig. 6.15 Share of losses in transmission network 2009-2019

The figure shows the share of losses calculated towards the domestic demand. The level of transmission losses is affected by all the energy entered into the transmission system. Therefore, in order to calculate the share of losses towards the transmission network load, other sources, such as transit, as well as energy for generators own costs, should be included in addition to domestic demand. The share of transmission losses calculated in this form is 1.25%.

According to government decision of 2012 to transfer part of the assets of the distribution system to the transmission system, the metering point between the two networks is on the secondary side of the transformers (35 kV or 10 kV). In SS Vallaq, KOSTT failed to place the interval meters on the secondary side, therefore in the balancing mechanism for calculating transmission losses the values from the interval meters located on the primary side of the transformers were obtained. According to the measurements for imbalance (based on interval meters) the losses in the transmission network are 105.5 GWh, while from the monthly readings on the secondary side of the transformers in SS Vallaq the losses in the transmission network are 108.8 GWh. In the same way the energy consumed in the north is 294.3 GWh, while according to the monthly measurements on the secondary side of the transformers in SS Vallaq this value is 290.5 GWh.

6.5 Electricity distribution system

Distribution network consists of voltage lines of 35 kV, 10(20) kV, 6 kV and 0.4 kV and the respective sub-stations of 35/x kV, 10(20)/0.4 kV dhe 6/0.4 kV.

Basic data of substations and lines, including capacity, transformation and length of lines of distribution system have been presented in the tables below.

Tab. 6.16 Substations and transformers by level of voltage in DSO

Transformation (kV/kV)	Owner	No. of SS	No. of TR	Installed Capacity (MVA)
35/10	KEDS	44	94	662
35/10	Private	10	14	63
35/20	KEDS	1	1	4
35/6 kV	Private	5	8	43
35/0.4kV	Private	17	23	22
10(20)/0.4	KEDS	2,487	2,579	1,324
10(20)/0.4	Private	2,394	2,404	1,147
10/20	KEDS	3	3	8
10/0.4	KEDS	2,865	2,865	868
10/0.4	Private	1,247	1,253	606
6(3)/0.4	KEDS	66	66	13
6/0.4	Private	1	1	1
Total		9,141	9,312	4,762

Tab. 6.17 Lines in DSO

Voltage (kV)	Owner	Overhead lines (km)	Cable network (km)	Total (km)
35 kV	KEDS	482	131	613
10(20) kV	KEDS	1,471	474	1,946
10 kV	KEDS	4,165	904	5,069
6 kV	KEDS	42	8	50
3 kV	KEDS	4	1	5
0.4 kV	KEDS	17,187	2,445	19,632
Total		23,351	3,963	27,314

The scheme below provides basic information on the number of substations (SS), transformers (TR) and transformer power (VA), line length, and power plants connected to the appropriate voltage level.

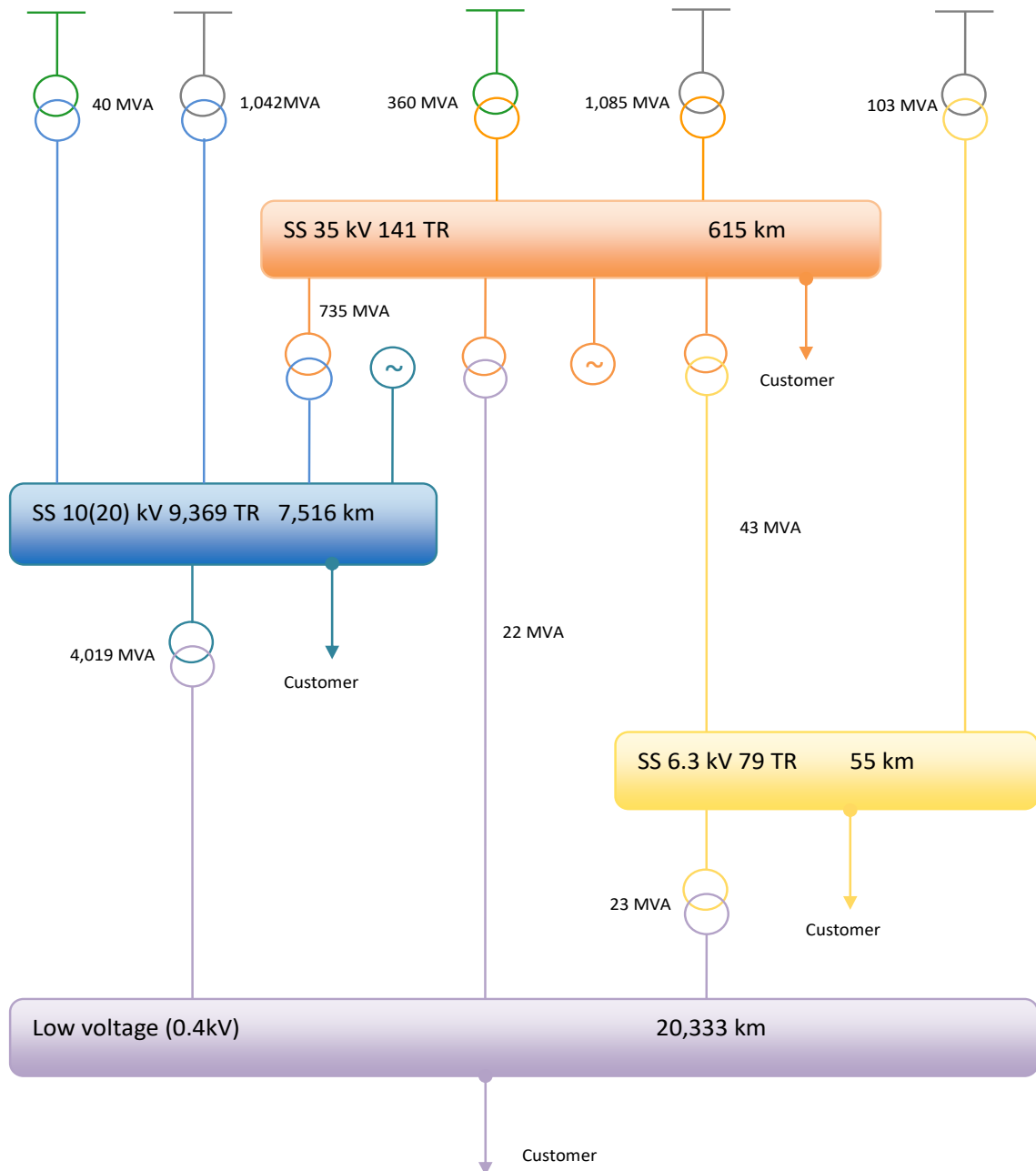


Fig. 6.16 The Basic Data of Transmission Network

6.5.1 Investments in the Distribution System

Investments in the Distribution Network increase the functioning of the distribution system in order to achieve a reliable supply of electricity, to increase the capacity of the existing network. Investments include projects in the medium and low voltage network as well as in projects in the digitalization and modernization of the network such as SCADA, smart PLC meters, etc.

Implementation of 2019 investments includes projects that are planned for 2019 and as a continuation of previous years. Projects are selected by analysing the need for investment in critical

areas and by evaluating them through the priority criteria to achieve the main investment targets, such as:

- Reduction of technical and non-technical losses,
- Reliable and quality power supply,
- Increasing existing network capacity and modernizing the network.

The projects were selected by analysing the following technical criteria:

- Losses,
- Network load,
- Voltage drops,
- No. of interruptions,
- Energy demand,
- Consumption increase,
- Network obsolescence,
- Number of customers.

Medium voltage projects in 2019 have been implemented mainly in the areas of Ferizaj, Fushe Kosove and Dragash to solve the problems of rapid growth of consumption, overloading of the network and improvement of technical parameters.

Reinforcement projects in the low voltage network have been implemented in Podujeva, Drenas, Pristina, Decan, Gjakova and Mitrovica.

The 2019 investment projects are presented in two parts, as "Projects within the scope of past years completed in 2019" and "Investment projects planned for 2019".

Projects within the scope of past years completed in 2019

Investments in 10 kV exits

The project: Hogoshti (Planned year: 2018)

The 10 kV exit Hogosht is supplied by SS Berivojca and is the longest exit in Kosovo. In this case, the exit was divided into two other exits and 1968 customers benefited from this investment. The project was completed in 2019.

The project: Zahaqi - Kastrati (Planned year: 2018)

Many businesses are supplied at Zahaqi exits. By this investment, the load from the Kastrati exit is discharged, as one of its branches will be supplied by Zahaqi. Fusha e Pejes exit is also connected to Zahaq. 1913 customers benefited from this investment, which was completed in 2019.

The project: Fushë Kosova 2 - Apollonia (Planned year: 2018)

Investments in Fushe Kosovo 2 and Apollonia exits discharge the Apollonia exit, whose load is increasing. 971 customers benefited from this investment, which project was completed in 2019.

The project: Plemetin - Fidanishte (Planned year: 2018)

Investments in Plemetin and Fidanishte exits discharge Plemetin, Lum i Madh, Shkabaj and Palaj exits and customers from the exits of Plemetin, Lum i Madh, Shkabaj and Palaj are benefitting with a total number of 2476 customers. The project was completed in 2019.

Conversion of exits at 20 kV level

Since 2017, the DSO (Distribution System Operator) has started converting 10 kV exits to 20 kV voltage level. The projects that continued during 2019 are presented as follows.

The project: Breznica (Planned year: 2017)

Investments in this exit started in 2018, while the increasing voltage transformer and energizing at the voltage level of 20 kV was made in 2019. 576 customers benefit from this project.

The project: Drenica (Planned year: 2017)

Drenica exit has been selected as a pilot project for conversion to the 20kV voltage level, and about 2611 customers benefit from this investment. The entire investment was completed in 2018, but the energy exit of the 20 kV voltage level was finalized in 2019.

The project: Runik (Planned year: 2018)

Investments in Runiku exit in Skenderaj are done in the transformation from the 10kV level to 20kV one. The implementation and energizing of the project continued in 2019 and it will be completed in 2020. 1772 customers will benefit from this project.

Low voltage network reinforcement projects

A number of low voltage reinforcement projects have been carried over from previous years to 2019. Due to some obstacles from 2015 to 2018, 92 projects have been transferred to 2019.

Investment projects planned in 2019

Investments in the medium voltage network (MV)

The project: New 35 kV line from SS-Zhur 35/10 kV to SS-Dragash 35/10 kV (Planned year: 2019)

As part of the emergency projects, a 35 kV line has been built from SS-Zhur 35/10 kV to SS-Dragash 35/10 kV. The implementation of the project started in March 2019 and was completed in August 2019.

The project: Investment in 35 kV and 20 kV network in Fushe Kosovo (Planned year: 2019)

Also, within the emergency projects, new 35 kV lines and two new 35/20 kV substations have been built in the city centre. 10 kV exits are planned to be converted to 20 kV voltage level, using a ring topology between the substations. 15,134 customers will benefit from this project. The 35 kV and 20 kV projects are expected to be completed in the first quarter of 2020.

The project: Investment in 35kV and 10 kV network in Ferizaj (Planned year: 2019)

The new 35 kV lines are planned between HV/MV and MV/MV substations, in the framework of emergency investments, thus creating a ring topology in the 35 kV network. The total number of customers who will benefit from the investment is 23,283. The 35 kV and 10 kV projects are expected to be completed in the first quarter of 2020.

Investments in low voltage network

The low voltage investments in the 2019 Investment Plan have been realized in the regions of Podujeva, Drenas, Prishtina, Deçan, Gjakova and Mitrovica. The total number of projects in the LV network is 114.

Investments made in low voltage projects include:

- New transformers in areas in need of investment,

- Replacing existing transformers with new ones to increase capacity,
- Rehabilitation of low voltage network,
- Reinforcement of the medium voltage network within the scope of LV projects, in accordance with the future MV outage plans,
- Placement of MMOs, which means placing meters outside to columns or landmarks,
- Connecting customers to outside-the-house meters.

In conclusion, for all investments of 2019, including investments carried and planned in 2019, in the MV and LV network, the following materials are spent:

- Transformers - 102 pieces,
- Pillars - 9,240 pieces,
- Meter boxes - 9,232 pieces,
- Distribution panel - 128 pieces,
- Stands - 21 pieces,
- Chambers - 191 pieces,
- Cable - 1,326,656 m,
- Conductors - 309,999 m,
- Cable heads - 2.570 pieces.

Maintenance and rehabilitation of MV and LV network

Maintenance and rehabilitation of MV and LV was one of the main operations implemented during 2019, as presented below:

- Replacement of MV and LV pillars,
- Cleaning the route of the MV and LV network as a preventive measure in creating working conditions for the lines without being affected by external factors such as tree branches, etc.
- Replacement of conductors and their tightening, replacement of insulators, overvoltage dischargers, consoles and any other elements that may become a source of breakdown,
- Displacement of 10 kV and 0.4 kV lines in order to maintain and adjust the breakdowns as easily as possible,
- Reinforcement of basements of transformer pillars, metal construction pillars,
- Adjustment of transformers, their metal construction,
- Replacement of damaged transformers.

During 2019, a total of 204 lines 0.4, 10 (20) and 35 kV with a length of 319 were cleared of vegetation. 69 km.

Implementation of PLC Projects

To reduce commercial and technical losses during 2019, 73 PLC projects have been implemented in seven districts, where 5,028 customers have been affected.

Implementation of projects related to voltage drops on 0.4 kV level.

During 2019, a total of 168 projects were implemented that have voltage drops at 10 (20) and 0.4 kV levels and that have affected 4,886 customers. Numerous materials have been used, such as conductors, cables, connectors, hubs, switches, poles, and 74 transformers.

- Cable connectors – 1,555 pieces,
- Trunk bases - 5,471 pieces,
- Cable heads - 602 pieces,
- Cable - 166,868 m,

- Distribution panels - 7 pieces,
- Conductors - 17,409 kg,
- Chambers - 41 pieces,
- Dividers - 39 pieces,
- Insulators - 5,408 pieces,
- Shells - 5,085 pieces,
- LV switches - 73 pieces,
- LV panels - 106 pieces,
- Meter boxes - 1,244 pieces,
- Pillars - 2,231 pieces,
- Overvoltage dischargers - 461 pieces,
- Transformers - 74 pieces.

Investments at the metering point

The DSO has invested in the installation of new meters, replacing the mechanical meters by digital meters, with the ability to read remotely. During 2019, the following meters have been invested:

- 2,922 meters with direct measurement with GSM GPRS communication,
- 18,078 meters with direct measurement with PLC,
- 196 meters with semi-indirect and indirect measurements, of which 148 are new meters and 48 replaced meters,
- 10,039 mechanical meters that have been replaced by digital ones,
- 25,972 meters dedicated to new connections.

Investments in SCADA

The SCADA project is planned to be implemented in three phases. The first and second phases of the project have already been completed, while the third phase is expected to be completed by the end of 2020, as shown below:

- Monitoring and control of 21 SS is carried out during the first stage of the SCADA project;
- Monitoring and control of 19 SS is carried out during the second stage of the SCADA project;
- SCADA Main Control Centre and servers have been completed in 2018;
- The integration of DMS/OMS/Call Centre/GIS/CIS is ongoing;
- The third phase of the SCADA project will begin soon and is scheduled to be completed by the end of 2020.

6.5.2 Consumption and distribution losses

DSO is organized into seven districts: Pristine, Mitrovica, Peja, Gjakova, Prizren, Ferizaj and Gjilan.

Data on consumption, technical and commercial losses as well as other data are calculated by districts and months of the year.

The highest consumption was realized in Pristina district with 32% of the total consumption in distribution, while the lowest consumption is in the district of Gjilan with 8.4 % of the total consumption.

Energy flows in Distribution, by districts, including electricity losses, are presented in Table 6.18. Data on the Mitrovica district also include consumption in the north, which is considered in the category of commercial losses.

Tab. 6.18 Consumption and Distribution losses by districts in 2019

Districts	Load in districts	Billed electricity	Technical losses		Commercial losses		Total losses	
	MWh	MWh	MWh	%	MWh	%	MWh	%
Prishtina	1,688,271	1,319,059	212,889	12.61	156,323	9.26	369,211	21.87
Mitrovica	774,088	334,388	72,307	9.34	367,393	47.46	439,700	56.80
Peja	579,057	430,467	80,834	13.96	67,757	11.70	148,591	25.66
Gjakova	469,995	364,637	79,406	16.89	25,953	5.52	105,358	22.42
Prizreni	670,820	541,162	91,756	13.68	37,903	5.65	129,658	19.33
Ferizaji	692,440	567,867	95,266	13.76	29,307	4.23	124,573	17.99
Gjilani	447,328	386,736	51,052	11.41	9,541	2.13	60,592	13.55
Total	5,321,999	3,944,315	683,508	12.84	694,177	13.04	1,377,684	25.89

Table 6.19 presents the demand (load), billed energy as well as technical and commercial losses by months.

Tab. 6.19 Consumption and Distribution Losses in 2019

Month	Charge	Billed energy	Technical losses		Commercial losses		Total losses	
	MWh	MWh	MWh	%	MWh	%	MWh	%
January	633,129	424,555	103,560	16.36	105,014	16.59	208,574	32.94
February	515,867	342,900	71,823	13.92	101,144	19.61	172,967	33.53
March	485,515	349,400	63,438	13.07	72,677	14.97	136,115	28.04
April	420,106	307,209	52,167	12.42	60,729	14.46	112,896	26.87
May	406,102	305,499	46,374	11.42	54,229	13.35	100,604	24.77
June	337,905	279,250	35,216	10.42	23,438	6.94	58,654	17.36
July	359,745	298,249	37,250	10.35	24,246	6.74	61,495	17.09
August	371,582	314,905	37,176	10.00	19,501	5.25	56,677	15.25
September	338,372	274,750	35,986	10.64	27,637	8.17	63,623	18.80
October	392,928	302,010	46,739	11.90	44,179	11.24	90,918	23.14
November	446,781	326,684	56,675	12.69	63,421	14.20	120,097	26.88
December	613,968	418,903	97,103	15.82	97,962	15.96	195,065	31.77
Total realised	5,321,999	3,944,315	683,508	12.84	694,177	13.04	1,377,684	25.89
Total balance	5,158,260	3,740,590	537,204	10.41	880,466	17.07	1,417,670	27.48

The technical losses, according to the data sent by the DSO, amount to 12.84 %, The old age of the network has a high impact on these losses, as well as the length of the lines, the quality and type of conductors and transformers, the loading of the equipment as well as their maintenance

Commercial losses are quite high, accounting for 7.51 % of total demand in distribution, however the unbilled energy in the northern part of Kosovo must be added as well, which represents 5.53 % (294 GWh) of the total demand in distribution. Therefore, non-technical losses are 13.04 %.

The total losses in the distribution system are metered and represent the difference between the energy entering the distribution system and the billed energy. Since technical and commercial

losses cannot be measured separately, the allocation of these losses is carried out by calculating the technical losses through the respective software, while commercial losses are further calculated as the difference between total and technical losses.

Electricity demand in distribution in 2019 was realized in an amount of 5,322 GWh, whereas in 2018 it was 5,120 GWh, which represents an increase of approximately 3.94 %

Consumption in the distribution system is constantly increasing, as is the overall demand, and this increase is shown in Figure 6.17, which presents the data from 2009 to 2019.

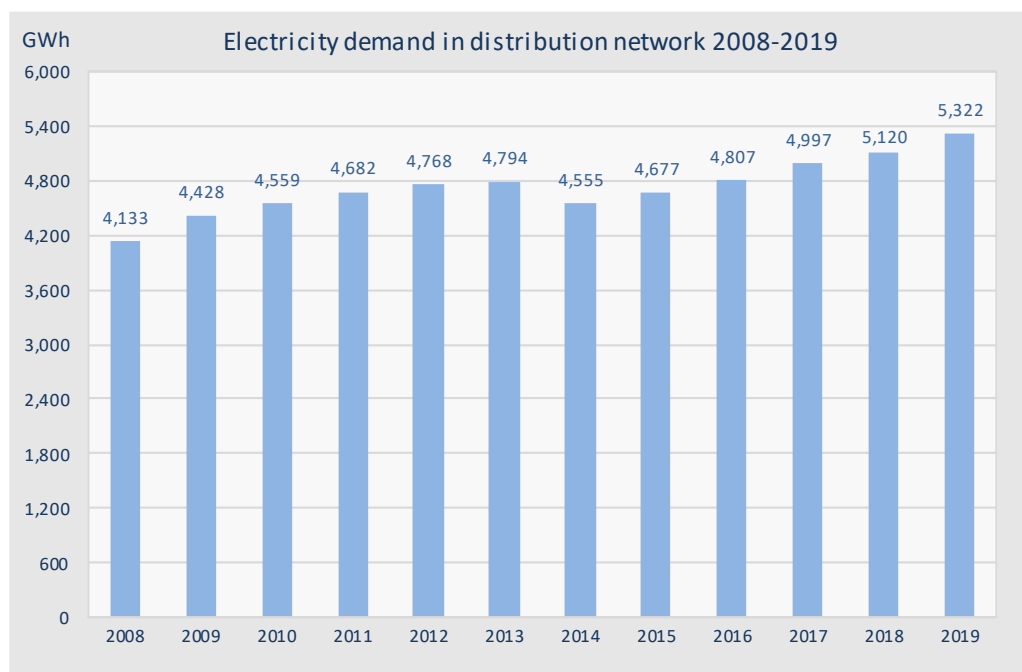


Fig. 6.17 Electricity Demand in Distribution System 2009-2019

Despite investments realized so far in the distribution network, electricity losses remain high and represent a concerning problem for the electricity sector. Losses also have a negative impact on customer supply and financial sustainability of supply and distribution operators as well as the entire energy sector.

The reduction of commercial losses also has a positive impact on the reduction of consumption, thus reducing the network load and technical losses.

The cost of electricity losses up to the level determined by the Regulator is covered by the customer's tariff. The Distribution System Operator makes continuous efforts to reduce distribution losses, however despite the reduction of losses over the years, the DSO has failed to meet the targets set by the Regulator, which means that the cost of the part which exceeds these targets is borne by the DSO itself.

Below is a chart showing the technical, commercial and total losses from 2009 to 2019, showing the trend of loss reduction as well as fluctuations in the level of technical and commercial losses.

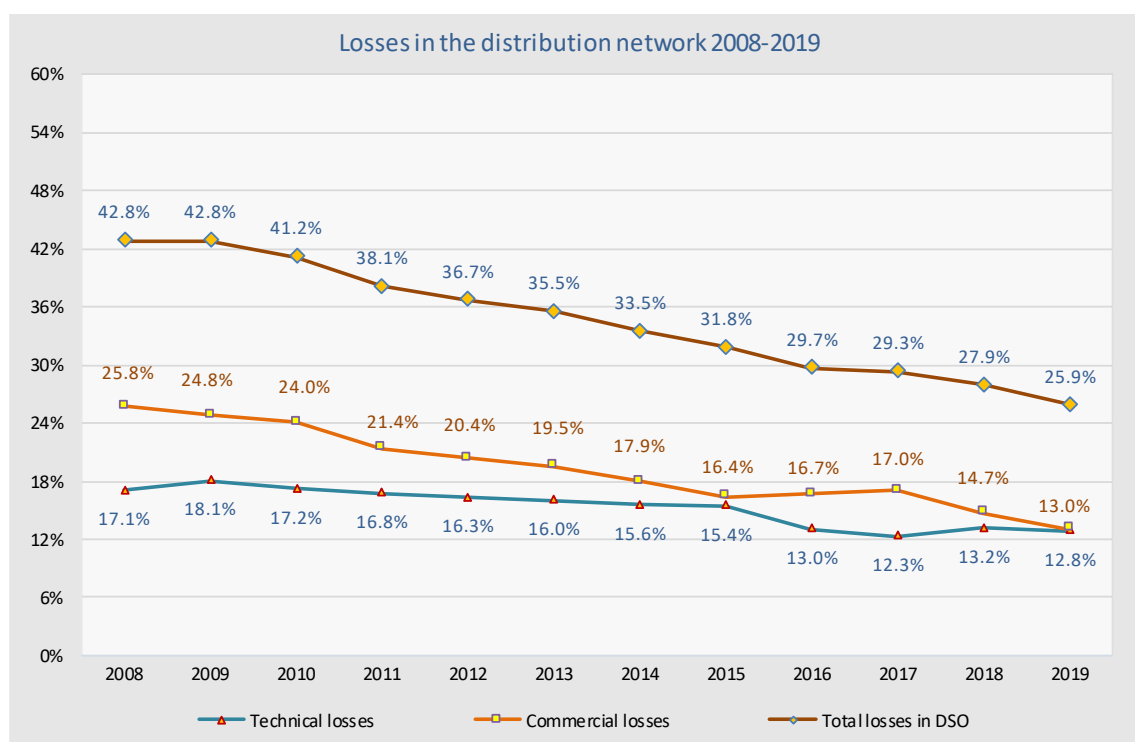


Fig. 6.18 Technical and commercial losses in distribution for the period 2009-2019

Overall, electricity losses in DSO have decreased from 27.9% in 2018 to 25.9% in distribution demand.

6.6 Electricity Supply

The electricity supply is related to the sale of electricity to final customers and includes the supply of customers with the right to universal service and unregulated customers.

Electricity supply during 2019 is provided by the supplier bearing the universal service obligation, who has supplied customers at regulated process and customers with deregulated prices, for which a special account has been kept.

Participation of household consumption in the overall billed distribution consumption is still dominant - about 57.06 %, followed by commercial consumption by 22.48%, followed by industrial consumption by 19.81%, and finally by public lighting consumption by 0.65%. Gross demand increased by 5.83%, consumption of household customers increased by about 5.97%, consumption of commercial customers also increased by 7.7% and consumption in industry increased by 24.01% compared to last year.

In the figure below is presented in percentage share of consumption categories compared with total consumption (shown with and without losses).

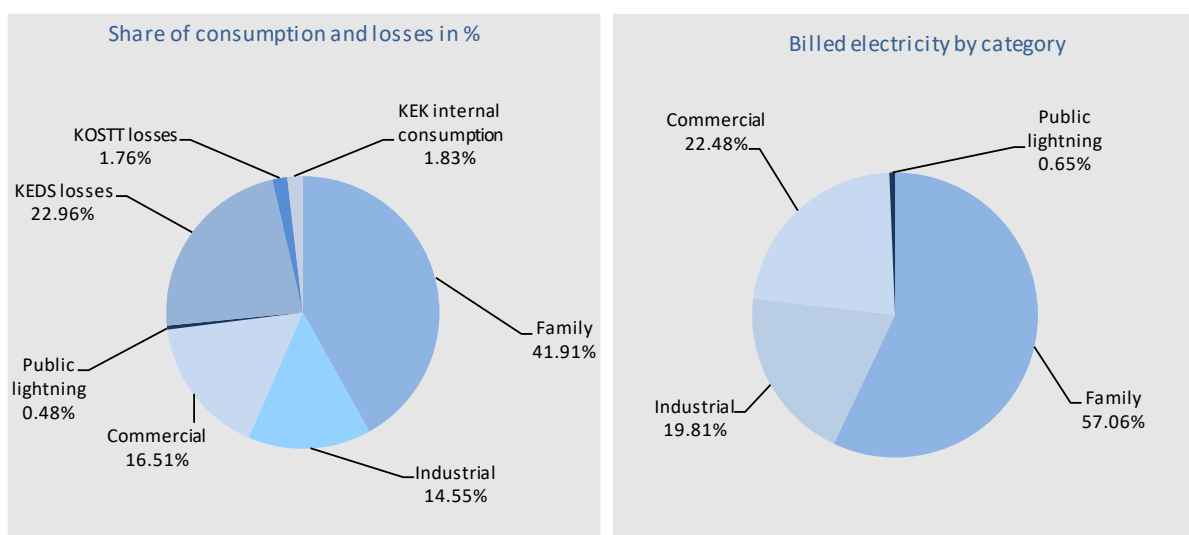


Fig. 6.19 Participation of customer categories - with and without losses 2019

6.6.1 Billing and collection

The energy billed in the distribution system in 2019 was 3,944 GWh and represents about 74.1% to the load of the distribution system, which compared to 2018 is higher by 2.03 percentage points.

Table 6.20 presents the billing, energy collection and gross collection of distribution as well as the ratio between billing and energy collection by months for 2019, which shows that in a few months this ratio is higher than the value of 100%, which means that in these months the electricity billed for the previous months has been collected.

Tab. 6.20 Billing and collection by months in distribution for 2019

Distribution 2019	Load	Realisation	Billing	Collection for energy	Gross collection	Coll./Bill.
	MWh	MWh	€	€	€	%
January	633,129	424,555	28,430,862	24,437,335	25,192,853	86.0%
February	515,867	342,900	23,600,410	23,703,165	24,406,514	100.4%
March	485,515	349,400	24,266,194	23,947,375	24,797,457	98.7%
April	420,106	307,209	21,699,458	22,330,858	23,035,833	102.9%
May	406,102	305,499	21,564,261	26,613,326	27,462,796	123.4%
June	337,905	279,250	20,146,707	19,065,438	19,768,969	94.6%
July	359,745	298,249	21,681,433	20,712,256	21,534,596	95.5%
August	371,582	314,905	22,881,862	22,465,745	23,329,739	98.2%
September	338,372	274,750	20,204,952	20,695,328	21,503,833	102.4%
October	392,928	302,010	21,643,358	20,359,614	21,161,936	94.1%
November	446,781	326,684	23,194,877	20,368,900	21,179,043	87.8%
December	613,968	418,903	28,892,444	22,214,341	23,347,856	76.9%
Total	5,321,999	3,944,315	278,206,817	266,913,681	276,721,423	95.94%

The electricity billed and collected (gross) in distribution as well as the ratio between billing and gross collection from 2009 to 2019 is presented in the following figure.

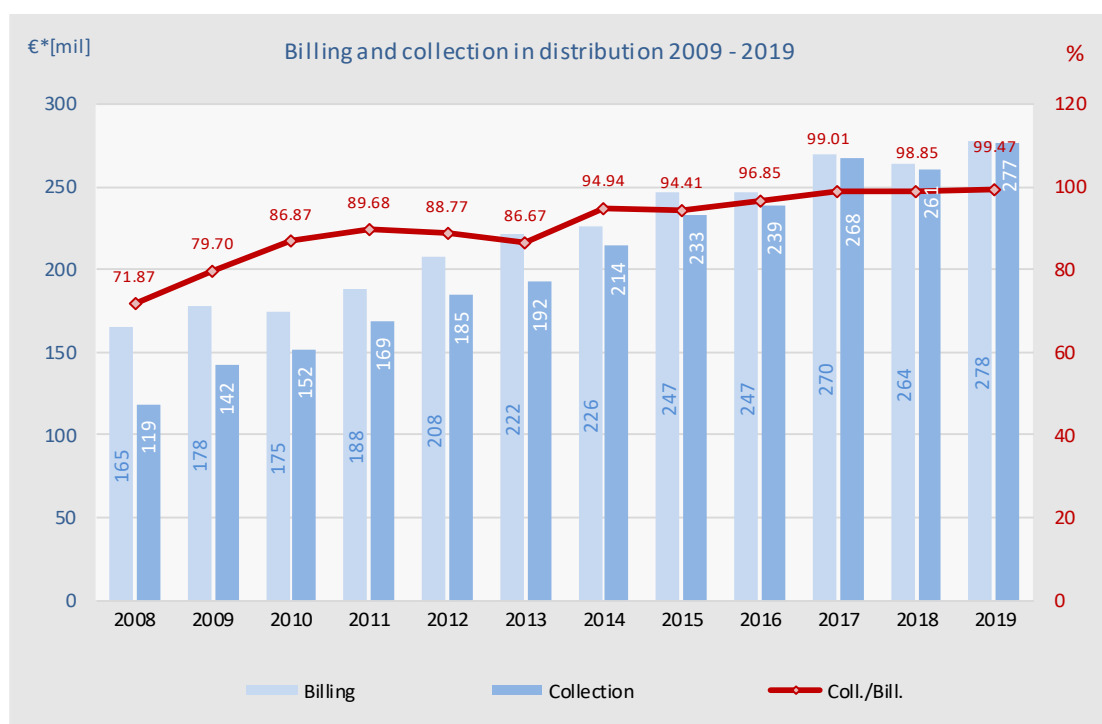


Fig. 6.20. Distribution billing and collection over the years 2009-2019

The level of collection only for energy in distribution was 95.94%, while the gross collection towards distribution billing for 2019 was 99.47%, while when counting the customers connected to the transmission network in which the collection is 100%, then the overall collection reaches 99.51%.

Consumption categorized by voltage level and customer groups that use electricity, for 2019 is given in Table 6.21.

Tab. 6.20 Electricity billed according to tariff categories 2019

Categories (MWh)	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
220 kV	371,177	34,029	12,911	34,482	34,090	35,554	31,857	35,538	35,318	27,986	35,001	30,701	23,709
110 kV (Trepça)	20,592	1,758	1,724	2,002	1,747	1,735	1,675	1,495	1,540	1,550	1,789	1,584	1,993
110 kV (Sharrcem)	72,341	2,504	5,443	6,240	6,187	6,221	4,758	6,042	6,455	6,661	9,131	6,824	5,875
35 kV	47,011	3,555	3,345	3,995	3,905	3,826	3,885	4,204	4,136	3,851	4,088	4,006	4,215
10 kV	362,320	30,350	27,339	30,401	28,423	28,725	27,601	30,573	30,919	29,008	30,828	31,795	36,359
Household	2,515,348	289,413	223,193	230,154	199,655	198,094	173,171	177,799	189,279	164,782	188,590	206,032	275,186
0.4 kV I	392,798	36,798	33,729	31,019	29,357	29,661	29,858	34,771	35,226	30,237	32,296	32,613	37,234
0.4 kV II	598,291	61,774	53,003	51,586	43,745	43,227	43,028	49,017	53,291	44,647	43,515	49,195	62,264
Public lightning	28,546	2,665	2,291	2,246	2,125	1,965	1,708	1,886	2,055	2,224	2,691	3,044	3,645
Total billed	4,408,424	462,847	362,978	392,124	349,233	349,009	317,541	341,324	358,218	310,947	347,930	365,793	450,480
KEK consumption	109,604	11,253	10,349	10,855	9,335	7,506	6,529	7,521	7,542	9,064	9,960	9,867	9,821
KEDS losses	1,377,684	208,574	172,967	136,115	112,896	100,604	58,654	61,495	56,677	63,623	90,918	120,097	195,065
KOSTT losses	105,489	13,753	9,791	10,450	8,473	6,910	6,225	6,337	6,688	6,239	8,103	9,175	13,345
Total	6,001,202	696,427	556,085	549,544	479,939	464,029	388,948	416,678	429,125	389,873	456,911	504,932	668,711

The electricity billed in the transmission system and in the distribution system in 2019 was 4,518 GWh, which in monetary terms (including VAT) is 306.0 mil €, while the gross collection is 304.5 mil€.

The following table provides billing and collection, as well as the relationship between collection and billing.

Tab. 6.21 Billing and collection in the 2019

2019	Load	Realisation	Billing	Gross collection	Coll./Bill.
	MWh	MWh	€	€	%
Regulated customers	5,321,999	3,944,315	278,206,817	276,721,423	99.47%
Unregulated customers	573,713	573,713	27,801,482	27,801,482	100.00%
Total	5,895,713	4,518,028	306,008,300	304,522,905	99.51%

Below is a table with the data on the number of customers by category, billing and average consumption for metering points by category.

Tab. 6.22 Number of customers and billing by categories for the 2019

Consumption by categories 2019	Metering point (MP)	Total billed	Consumption per MP	Share
	PCS	MWh	MWh	%
220 kV (Ferronikeli)	1	371,177	371,177	8.42%
110 kV (Trepça + Sharrceci)	2	92,933	46,467	2.11%
35 kV	35	47,011	1,343	1.07%
10 kV	390	362,320	929	8.22%
Households	517,486	2,515,348	4.86	57.06%
0.4 kV I	2,543	392,798	154	8.91%
0.4 kV II	82,912	598,291	7.22	13.57%
Public lighting	2,307	28,546	12.37	0.65%
Total	605,676	4,408,424	420,095	100.00%

The average price of electricity

Depending on the category of customers, the level of voltage at which customers are connected and the use of electricity at different tariffs according to the time in which the energy is used, the average selling price of electricity also changes. The average selling price (excluding VAT) is shown in Figure 6:21. The average selling price also varies according to districts depending on the concentration of commercial / industrial activities that use electricity in certain periods.

For the category of household customers, the average energy price is 5.68 € cent/kWh which is slightly higher than in 2018, while for non-household customers the average energy price is 7.33 € cent/kWh which is slightly lower than the average price in 2018.

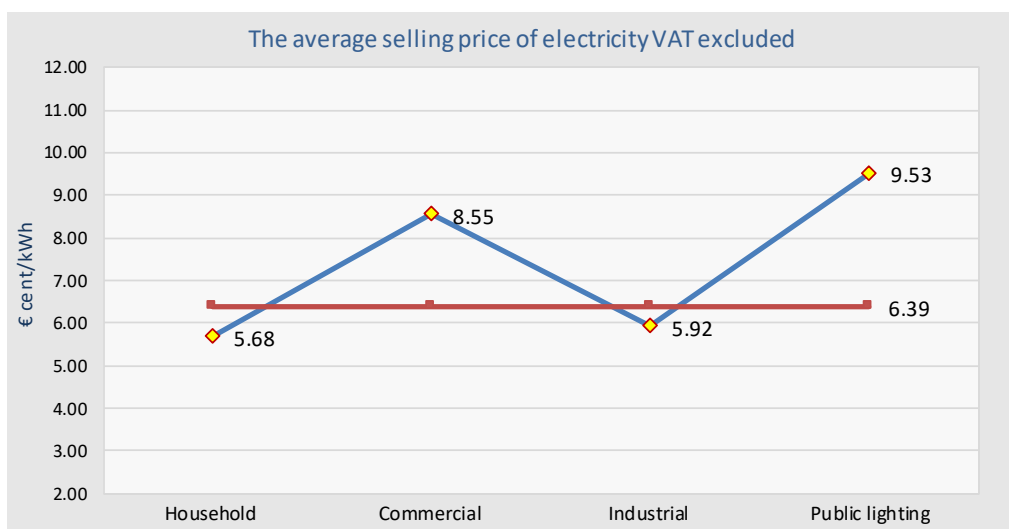


Fig. 6.21 Average price of electricity sales 2019 (excluding VAT)

The figure below shows the average electricity prices for household and non-household customers for the last ten years, prices which do not include VAT.

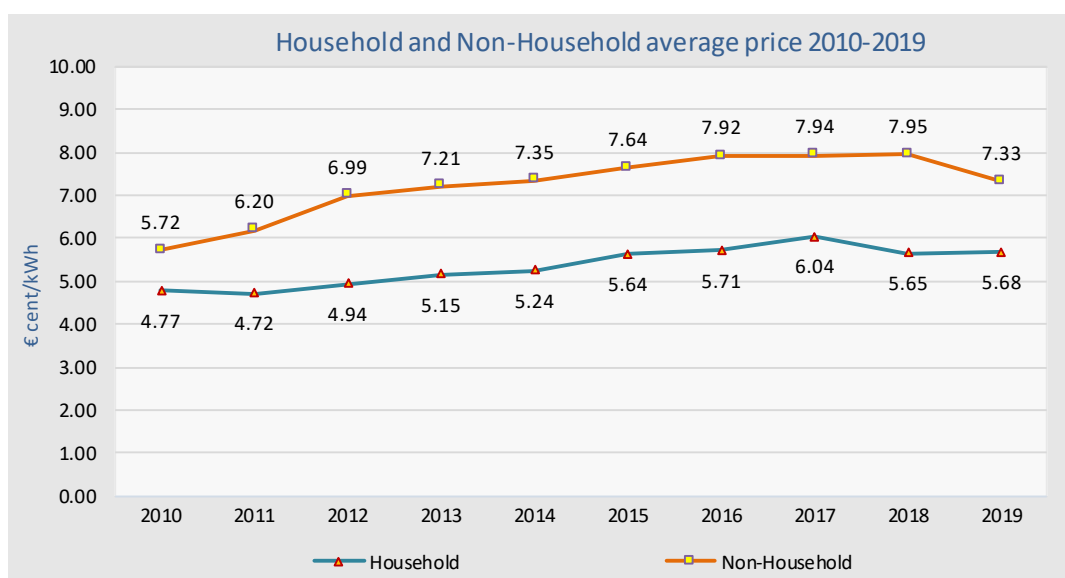
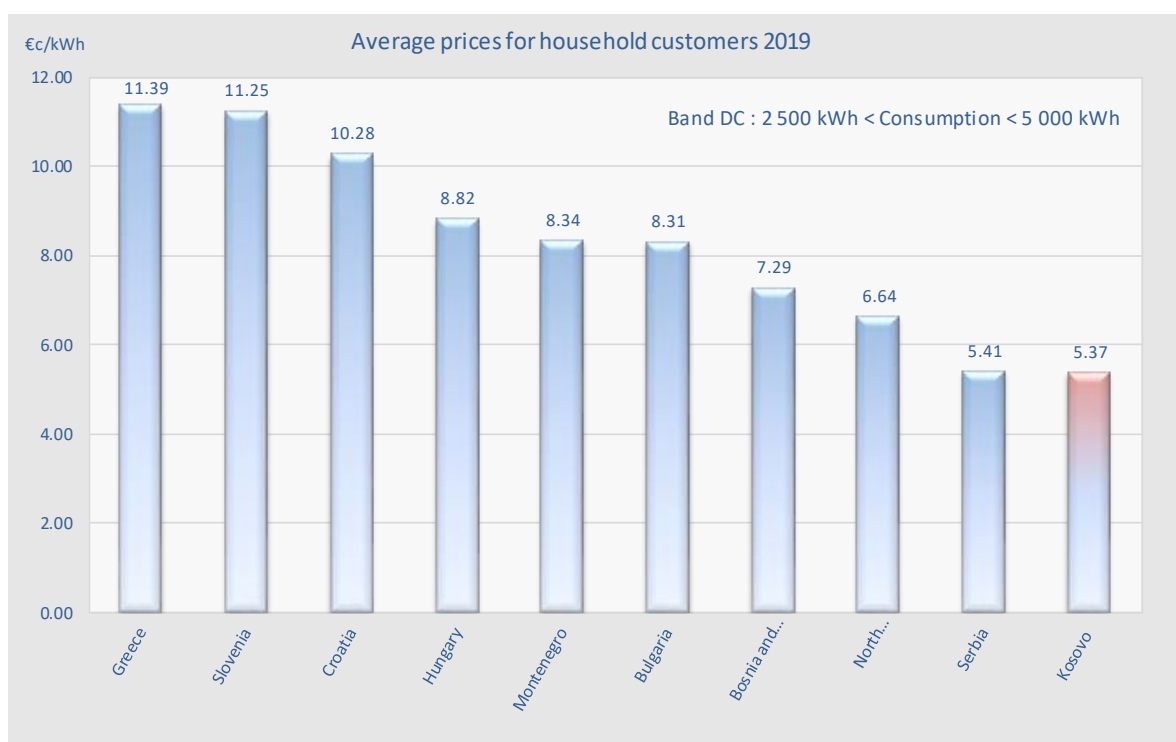


Fig. 6.22 Average price of electricity sales (excluding VAT) over the years

The average price without VAT for household customers is presented in the figure below for the first six months of 2019 for some countries, issued by Eurostat, as data for the second half is still missing. Eurostat data are categorized by consumption, and the figure shows the consumption value of 2500-5000 kWh, which most closely corresponds to the average consumption of a Kosovar family.



* EUROSTAT data source

Fig. 6.23 Average prices for household customers for the first 6 months of 2019 (excluding VAT)

6.7 Electricity Import and Export

The electricity demand in Kosovo's power system is covered by domestic generation and imports realized through cross-border lines.

The country's total electricity demand was covered by import at the level of 15.47 %, which represents a decrease of about 0.9 percentage points from the previous year being about 14.55 %.

Through interconnection lines from the regional system in the electricity system of Kosovo, 2,481,130 MWh have entered, while 2,197,154 MWh have been released, where 283,977 MWh represents the difference between entry and exit, while this is divided into net imports and deviations to the regional system.

The table below shows the electricity flows to neighbouring interconnection lines.

Tab. 6.23 Electricity flows on interconnection lines for 2019

Flow in interconnection lines in MWh	400 kV		220 kV		110 kV		Total	
	Received	Delivered	Received	Delivered	Received	Delivered	Received	Delivered
Albania			279,079	195,874			279,079	195,874
Macedonia	84,457	1,400,701					84,457	1,400,701
Montenegro	600,799	362,143					600,799	362,143
Serbia	1,390,934	59,663	108,958	61,211	16,902	117,563	1,516,795	238,436
Total	2,076,191	1,822,506	388,038	257,085	16,902	117,563	2,481,130	2,197,154
Balance	-253,685		-130,952		100,661		-283,977	

The import realized for 2019 was 928,492 MWh, with which the energy deficiencies were met, especially at peak times in the winter season when the demand was unaffordable for the domestic generation

This amount includes the electricity imported for regulated and unregulated customers, the losses in the transmission network and losses in the distribution network, which is provided through commercial contracts and through the exchange of energy for energy between KEK and KESH.

The total electricity imports for 2019 was about 13 percentage points lower than in 2018, which was 825,182 MWh.

Electricity imported with commercial contracts during 2019 was 894,062 MWh in the amount of € 50,132,368, with an average price of € 56.07 / MWh. Although in HUPX the average price of 2019 compared to the average price of 2018 was lower by only 0.64 € / MWh, in our country compared to last year, this year the average import price is lower by 10.27 € / MWh.

The data on imports and exports of electricity are presented in the table below.

Tab. 6.24 Import and export of electricity for 2019

Import/Export MWh	Import contracted	Import as exchange	Total Import	Export contracted	Export as exchange	Total Export	Net Imp/Exp
January	110,407	0	110,407	27,995	0	27,995	-82,412
February	49,284	18,360	67,644	38,069	4,414	42,483	-25,161
March	47,474	0	47,474	108,020	13,547	121,567	74,093
April	82,430	0	82,430	47,640	5,293	52,933	-29,497
May	94,176	5,650	99,826	29,155	2,892	32,047	-67,779
June	68,856	0	68,856	44,891	4,731	49,622	-19,234
July	56,903	4,960	61,863	56,942	8,243	65,185	3,322
August	86,865	0	86,865	69,001	10,029	79,030	-7,835
September	42,451	0	42,451	100,093	14,358	114,451	72,000
October	51,050	5,460	56,510	127,829	35,381	163,210	106,700
November	63,263	0	63,263	109,922	241	110,163	46,900
December	140,903	0	140,903	45,346	957	46,303	-94,600
Total	894,062	34,430	928,492	804,903	100,086	904,989	-23,503

Given the consumption curve during the daylight hours, and the inefficiency of the generating units to convey the consumption, it is seen that in many cases there is energy inefficiency and surpluses, sometimes within the same day. So in a few hours of the same day there are imports and exports of electricity, also due to the fact that the opening of the market has influenced customers to choose the source of energy supply, without being limited to local sources of production.

Electricity surpluses occur mainly in the night hours (at the time of low tariff). In these periods, surpluses appear in the region as well, resulting in higher bids, and this implies that export prices are significantly lower than import price.

Electricity exported with commercial contracts during 2019 was 804,903 MWh with an average price of 39.69 €/MWh. In addition to contracted export, there was an amount of energy exchanged (energy for energy) between KEK and KESH. The amount of energy exported as an exchange is

100,086 MWh. The total export of electricity for 2019 was 904,989 MWh, which is about 34 percentage point higher than in the year 2018, which was 676,815 MWh

As seen from the data presented above, in 2019 Kosovo was a net importer of electricity in the amount of 23,503 MWh, presented by months in the figure below.

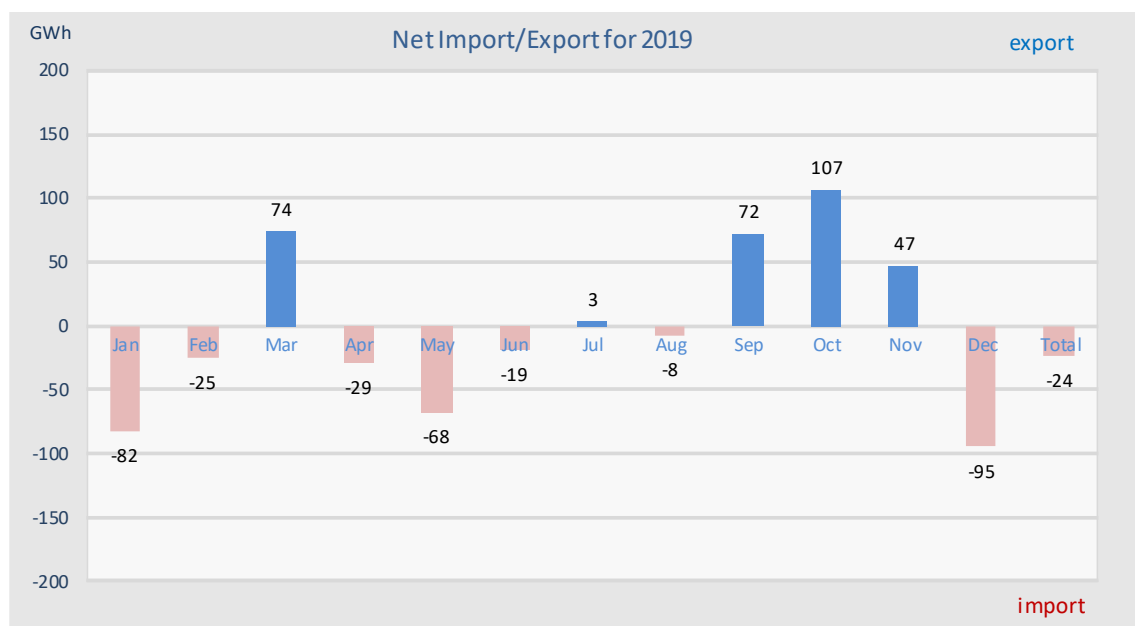


Fig. 6.24 Import and export of electricity in 2019

The price of import and export of electricity during the years 2000 - 2019 has increased and decreased. Below is a figure showing import and export prices from 2000 to 2019.

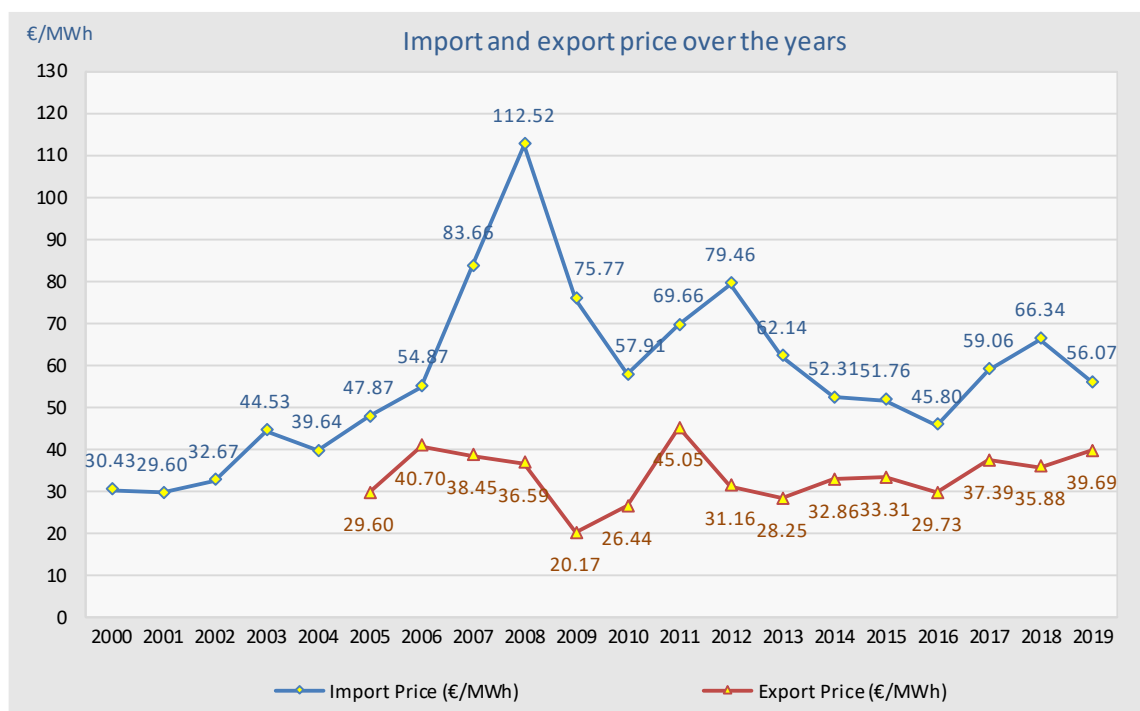


Fig. 6.25 Average price of imports and exports over the years

6.8 Electricity Service and Supply Quality Standards

The ERO Board in accordance with the legal provisions of the Law on Energy Regulator No.05 / L-084 and the Law on Electricity No. 05 / L - 085, on 05.06.2019 has approved the Rule on Electricity Service Quality Standards. The purpose of this Rule is to determine the indicators of the quality of electricity service for customers regarding the services provided, the uninterrupted supply of electricity and the quality of voltage.

Electricity supply services which are included in the rule are:

- service quality;
- uninterrupted supply; and
- voltage quality.

The Rule on Electricity Service Quality Standards presents the individual and general indicators (indicators) of the quality of the electricity service, the indicators of the uninterrupted supply, as well as the indicators of the quality of the voltage.

It should be noted that the quality standards of electricity supply and service are an important element of the regulation of the energy sector. These standards are defined so that the supply and quality of electricity service, and quality of voltage customers continuously improve the energy company.

Even during this reporting year, the quality standards of electricity supply and service have been monitored according to the following areas:

- Continuity of supply;
- Voltage quality; and
- Commercial Quality.

6.8.1 Continuity of supply

Continuity of supply is related to the availability of electricity, respectively displays the number and duration of outages per customer within a year.

Continuity of electricity supply in 2019 is monitored by ERO for both system operators: Transmission System and Market Operator (TSMO) and Distribution System Operator (DSO).

Continuity of supply is measured by indexes:

- SAIDI - System average interruption duration index;
- SAIFI - System average interruption frequency index; and
- ENS – Energy Not-Supplied.

6.8.1.1 Measuring indexes reported by OST

Measuring indexes reported by KOSTT for the standards of quality of electricity supply and service for 2019 are shown below.

- SAIDI - for planned interruptions in the transmission system has been 1.89 hours;

- SAIDI for unplanned interruptions in the transmission system has been 0.37 hours;
- SAIFI - for planned interruptions in the transmission system has been 0.52;
- SAIFI - for unplanned interruptions in the transmission system has been 0.41;
- ENS - for planned interruptions in the transmission system has been 1.556 GWh; and
- ENS - for unplanned interruptions in the transmission system has been 0.402 GWh.

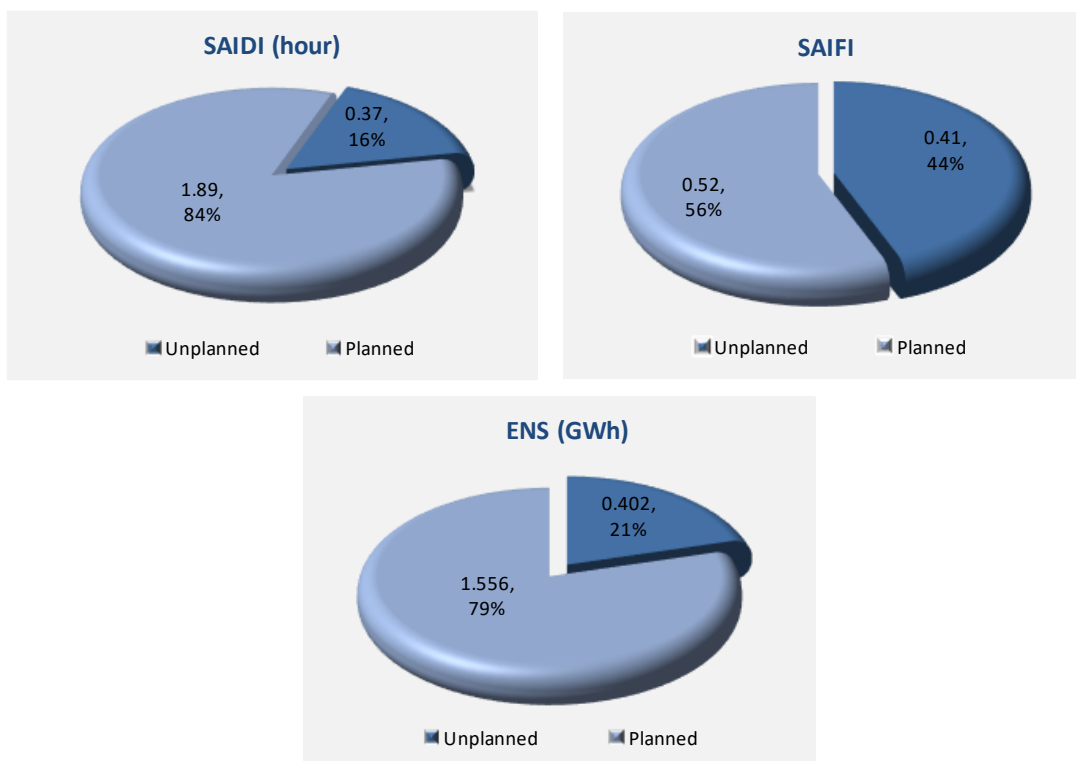


Fig. 6.26 Measuring indicators SAIDI, SAIFI and ENS by KOSTT for 2019

The figure below shows the measuring indexes, reported by KOSTT for the standards of quality of electricity supply and service during 2015 – 2019.



Fig. 6.27 SAIDI, SAIPI and ENS by KOSTT indicators for the period 2015 - 2019

According to the data reported by KOSTT for the SAIDI measuring index, it is estimated that in total this index decreases or improves by -1.30% during 2019 compared to 2018, mainly due to the works carried in the transmission network. It should be noted that in the SAIDI index during 2019 compared to 2018 there is an increase of planned interruptions by 1.58%, due to the works done in the transmission network, while there are discounts of unplanned interruptions of -13.65%.

For the SAIPI measurement index, from the reported data it is ascertained that in total this index during 2019 has a decrease or improvement of -103.23% compared to 2018. It should be noted that in the SAIPI index during 2019 compared to 2018 there is a decrease of this index to the planned interruptions of -32.69%, as well as discounts to the unplanned interruptions of -192.68%.

While regarding energy not supplied - ENS, during 2019 there is a decrease or improvement of this index by -31.26% compared to 2018, respectively there is a decrease in planned interruptions of -40.87%, while an increase in unplanned interruptions 6.35%.

While in terms of uninterrupted energy - ENS, during 2019 there is a decrease or improvement of this index by -31.26% compared to 2018, respectively there is a decrease in planned interruptions of -40.87%, while an increase in unplanned interruptions 6.35%.

6.8.1.2 Measuring indexes reported by the DSO

Measuring indices reported by the DSO on standards of quality of electricity supply and service for 2019 are presented below.

- SAIDI - for planned interruptions in the distribution system has been 20.47 hours;

- SAIDI - for unplanned interruptions in the distribution system has been 48.35 hours;
- SAIFI - for planned interruptions in the distribution system has been 6.76;
- SAIFI - for unplanned interruptions in the distribution system has been 47.26;
- ENS - for unplanned interruptions in the distribution system has been 10.74 GWh; and
- ENS - for planned interruptions in the distribution system has been 33.51 GWh.

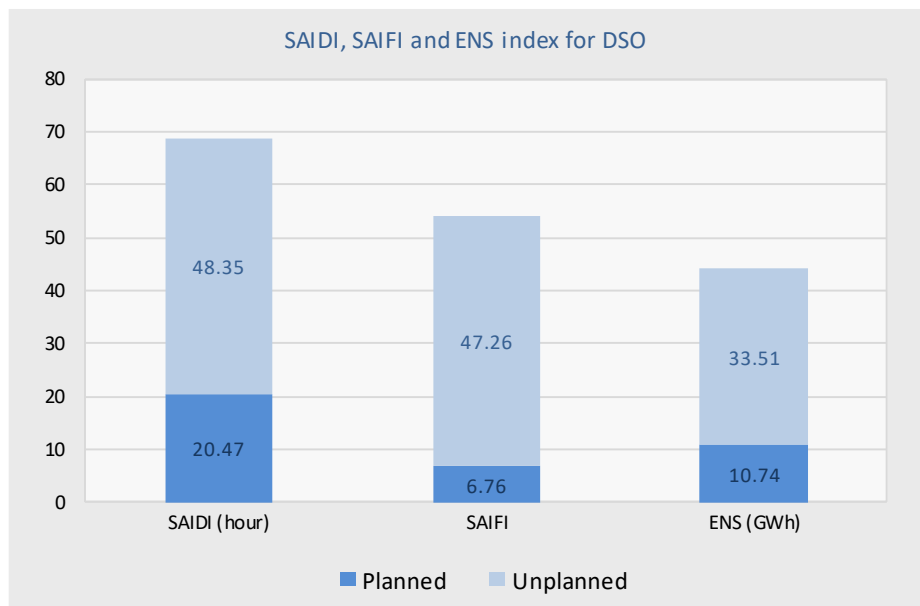


Fig. 6.28 Measuring indicators SAIDI, SAIFI and ENS by KOSTT for 2019

In the following figures we have shown measuring indices reported by the DSO on standards of quality of electricity supply and service during 2011 – 2019.



Fig. 6.29 Indicators SAIDI, SAIFI and ENS from the DSO for the period 2011-2019

From the above data it is noticed that the measuring indices SAIDI, SAIFI in 2019 have generally had a significant improvement compared to 2018, as a result of investments made in the distribution network.

According to the data reported for the SAIDI measurement index during 2019, it is noticed that there is a significant improvement of this index compared to 2018, which means that in 2019 there are discounts of -60.07% compared to 2018. It should be noted that during the more detailed analysis of the index - SAIDI, it is noted that in 2019 there is a decrease for planned outages of -119.49% compared to 2018, as well as a decrease for unplanned outages by -34.91% in 2019 compared to 2018.

An analysis of the measuring index SAIFI, shows that during 2019 there is an improvement of this index compared to 2018, which means that in 2019 there is decrease in frequency of electricity outages per customer - SAIFI for- 24.31% compared to 2019. During the more detailed analysis of the index - SAIFI, it is observed that in 2019 there is a decrease in the frequency of planned outages for customers (SAIFI) by -92.90% compared to 2019, as well as a decrease in frequency of unplanned outages per customer by -14.49% compared to 2018.

During 2019, the energy not supplied (ENS) in general has improved compared to 2018, which according to the data shows that in 2019 there is a decrease of -12.52% compared to 2018. In 2019 there is a decrease in uninterrupted energy for planned interruptions for -65.08% compared to 2018, while increased non-supplied energy for unplanned interruptions by 4.52%, compared to 2018.

6.8.2 Quality of voltage

The voltage quality is related to the technical aspects of the electricity system and compares to the nominal voltage, which during this period was mainly monitored through registration of customer complaints regarding the quality of voltage.

During 2019, the number of complaints submitted by customers in DSO regarding the quality of voltage was 278 complaints, of which 156 or 56.12% were resolved, 72 or 25.90% in the review process, while 50 complaints or 17.99% remain unresolved.

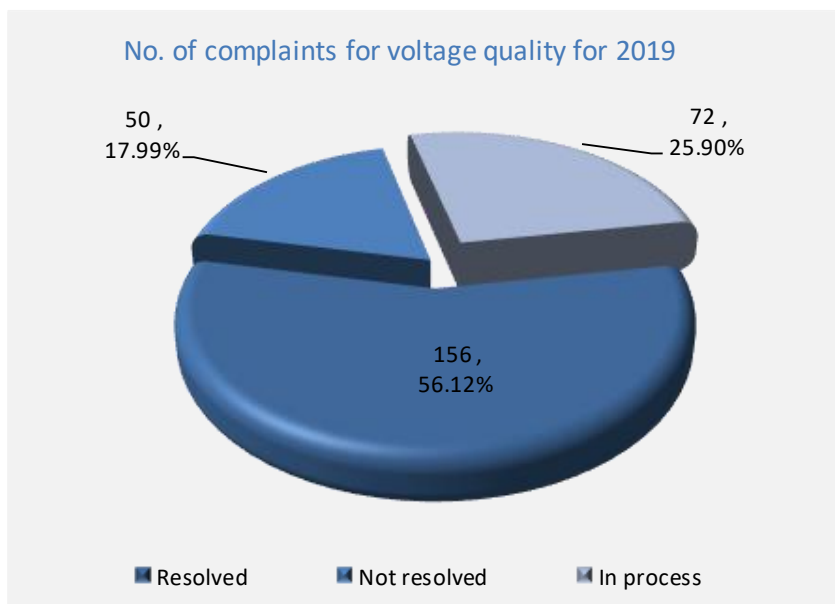


Fig. 6.30 Customer complaints about voltage quality in the 2019

Below is the figure with the data of the status of resolved customer complaints for voltage quality in DSO for 2019.

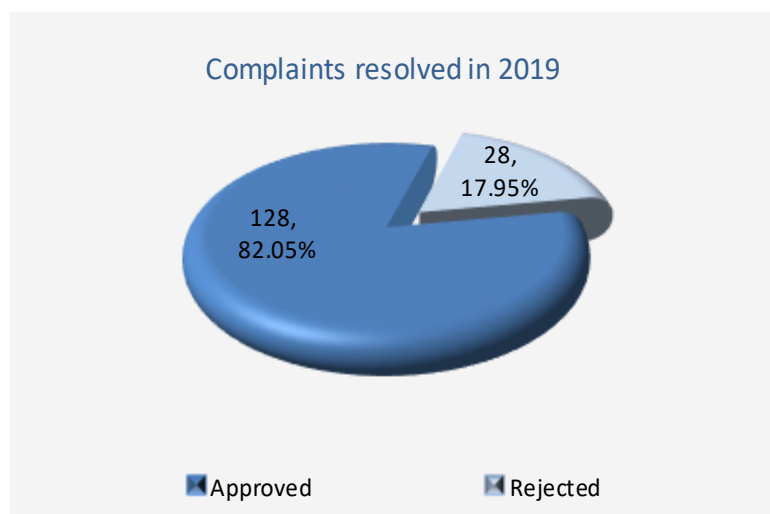


Fig. 6.31 Status of customer complaints resolved for the 2019

The figure above shows that the DSO from the 156 resolved customer complaints on voltage quality, 128 complaints were approved in favour of the customer or 82.05%, while 28 rejected, or in percentage 17.95%.

Below in the picture are presented the customers complaints about voltage quality according to the years, where it is seen that until 2017 there was a continuous increase of customer complaints about voltage quality, while in 2018 and 2019 it is noticed that we have a decrease in complaints of customers for voltage quality. In 2019 compared to 2018 there is a decrease of 184.89%

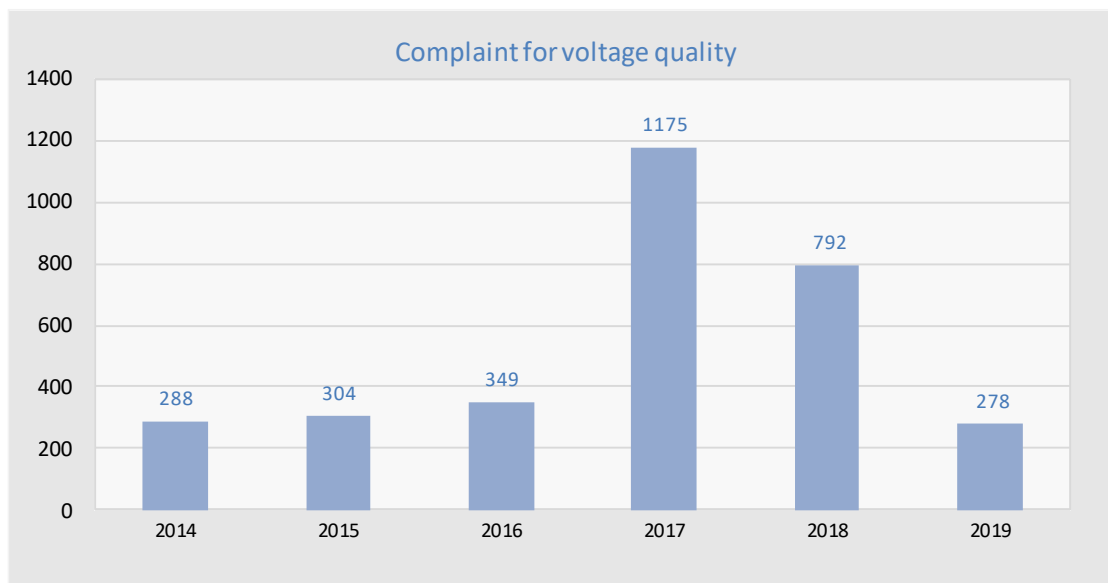


Fig. 6.32 Complaints about voltage quality by years

The voltage quality standards are defined in the Rule on General Conditions of Energy Supply, in the Distribution Code and Metering Code of Distribution.

6.8.3 Commercial quality

Commercial quality determines the efficiency and accuracy of resolving customers' complaints and requests. Commercial quality regulation takes into account the mutual relationship between the customers and the supplier.

In order to analyse the commercial quality, the data obtained by the licensees have been presented in two categories which directly affect the customers' issues. These categories are as follows:

- New connections, and;
- Energetic consents; and
- Costumers' complaints

6.8.3.1 New connection

In commercial quality standards, among other things, are also incorporated new connections, through which is recorded how quickly the energy enterprise takes measures for execution of new connection.

During 2019 in KESCO were registered a total of 27,664 regular requests for new connections for tariff groups 4, 5, 6, 7 and 8, while 25,830 or 93.37% requests for new connections were approved, while the rest of the requests are in registration process. It should be noted that the demand for new connections carried over from the previous year was 1,774.

From KESCO data, it can be seen that from the total number of requests for new connections, the most requests were from household customers (tariff group 5, 6 and 7) 19,539 or 70.63%, followed by requests for new connections of the commercial tariff group 0.4 kV Category II - tariff group 4 which were 3,726 or 13.47%, while the demand for the tariff group 8 - Public lighting were 195 or 0.70%. It should also be noted that out of the total number of requests for new connections, 4,204 requests or 15.20% were of undefined categories, and this is because the applicants for new connections in their requests did not specify the category of the customer and these requests are registered in this category.

From the total number of registrations of applicants as customers in the billing program "CCP", household customers are 21,976 or 85.08%, followed by tariff group 4 (0.4 kV Category II - commercial) with 3,608 registrations or 13.97%, as well as the tariff group 8 (public lighting) with 246 registrations or 0.95%.

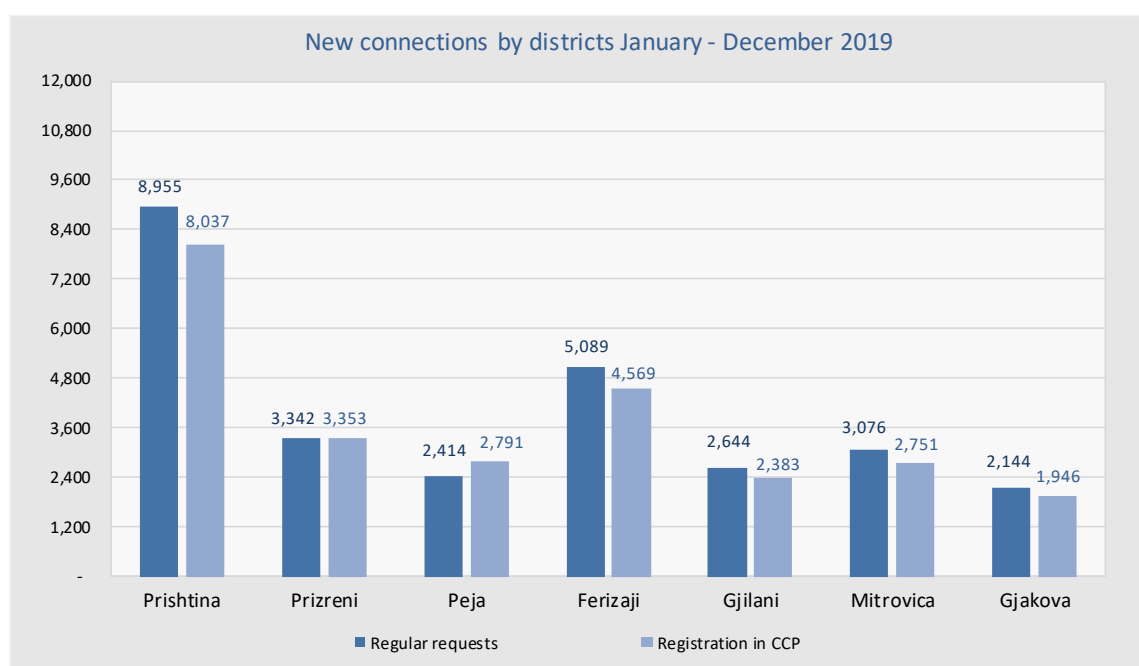


Fig. 6.33 New connections by districts for 2019

From the above diagram it is noticed that for 2019 from the total number of requests for new connections, most requests are registered in the district of Prishtina of 8,955 or 32.37%, followed by the district of Ferizaj of 5,089 or 18.40%, while the lowest number of requests for new connections has been registered in Peja district with 2,414 or 8.73%. Also, it should be noted that in terms of registration of claims in the billing program by the total number, most registrations were in the district of Prishtina with 8,037 or 31.11%, followed by the district of Ferizaj with 4,569 or 17.69%, while the lowest number was registered in Gjakova district with 1,946 or 7.53%.

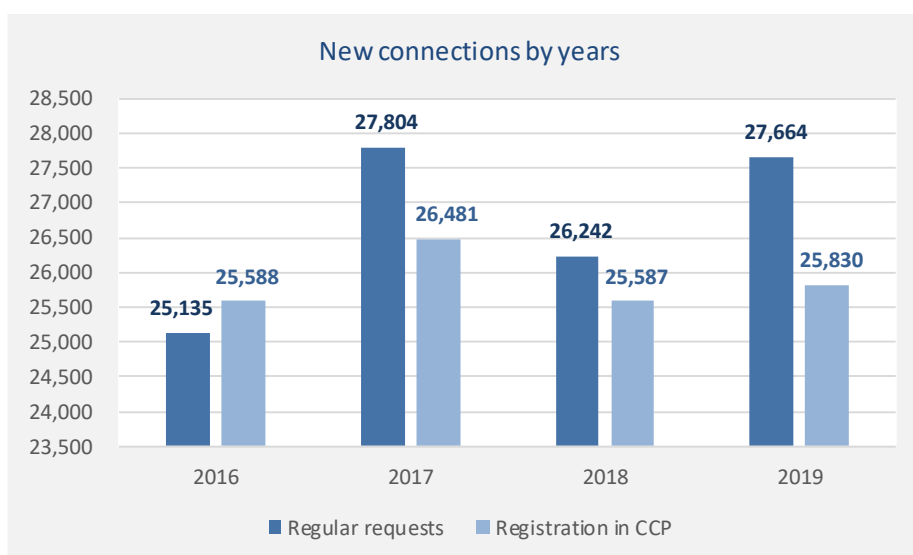


Fig. 6.33 New connections by years

The chart above shows that during 2019 there were 5.42% more requests for new connections than in 2018, 0.51% less customer registrations than in 2018.

6.8.3.2 Electro-energetic consents

From the presented data it is seen that during 2019 in KEDS 1,557 requests for Electricity Consent have been submitted, while 45 consents have been transferred from 2018..

Tab. 6.25 Electricity consents for 2019

Districts	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Prishtina	12	22	45	33	29	25	41	28	37	44	40	26	382
Mitrovica	10	15	6	17	20	11	13	11	13	27	12	14	169
Peja	6	10	8	8	12	16	16	7	11	6	14	10	124
Gjakova	6	11	11	7	13	7	9	9	11	11	5	9	109
Prizreni	9	14	23	18	12	6	25	24	14	14	12	10	181
Ferizaj	15	36	43	31	52	18	38	35	34	46	38	48	434
Gjilani	13	15	15	16	13	8	11	13	13	11	14	16	158
Total	71	123	151	130	151	91	153	127	133	159	135	133	1,557

From the above table it is noticed that from the total number of requests for Electricity Consent for 2019, most requests are registered in the district of Ferizaj and that 434 or expressed in percentage 27.87%, followed by the district of Prishtina with 382 or 24.53%, while the lowest demand was in the district of Gjakova with 109 or 7.00%.

Tab. 6.26 Electricity consents by districts for 2019

Districts	Request for EC 2019	Reviewed - EC	Reviewed - Information	In process	Submitted to other departments
Prishtina	382	266	103	8	17
Mitrovica	169	99	60	2	9
Peja	124	85	35	1	9
Gjakova	109	78	23	1	8
Prizreni	181	119	48	1	18
Ferizaj	434	282	135	7	26
Gjilani	158	101	51	5	5
Total	1,557	1,030	455	25	92

The table above shows that out of 1,557 requests of applicants for Electricity Consent for 2019 and 45 transferred from 2018, 1,030 requests were reviewed and Electricity Consents were issued, 455 requests were reviewed and the parties were given Information regarding their request for Electricity Consent. According to KEDS, 92 other requests were also reviewed, but according to the Department of Electricity Consent within KEDS, it was found that these requests should not be issued the Electricity Consent, but that these requests were delegated to other departments. The rest of the requirements are in the process of review.

Below is the diagram of the requests for Electricity Consent for the period 2014 - 2019, and from the diagram it is clear that for each year there is an increase in the demand for Electricity Consent from applicants for connection.

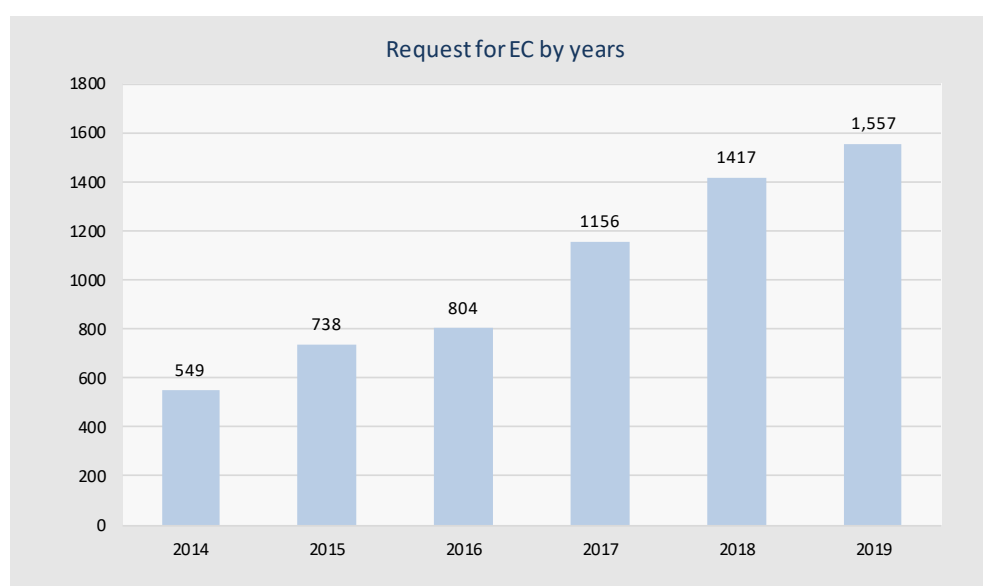


Fig. 6.34 Requests for Electricity Consents for the period 2014 – 2019

6.8.3.3 Customer complaints to the supplier - KESCO

Based on the data of KESCO supplier, the total numbers of registered customer complaints during 2019 amounts to 6,841 and 857 have been transferred from the previous year, whereas 6,102 complaints have been resolved/completed.

Find below the chart of registered and resolved customer complaints registered and resolved, by districts.

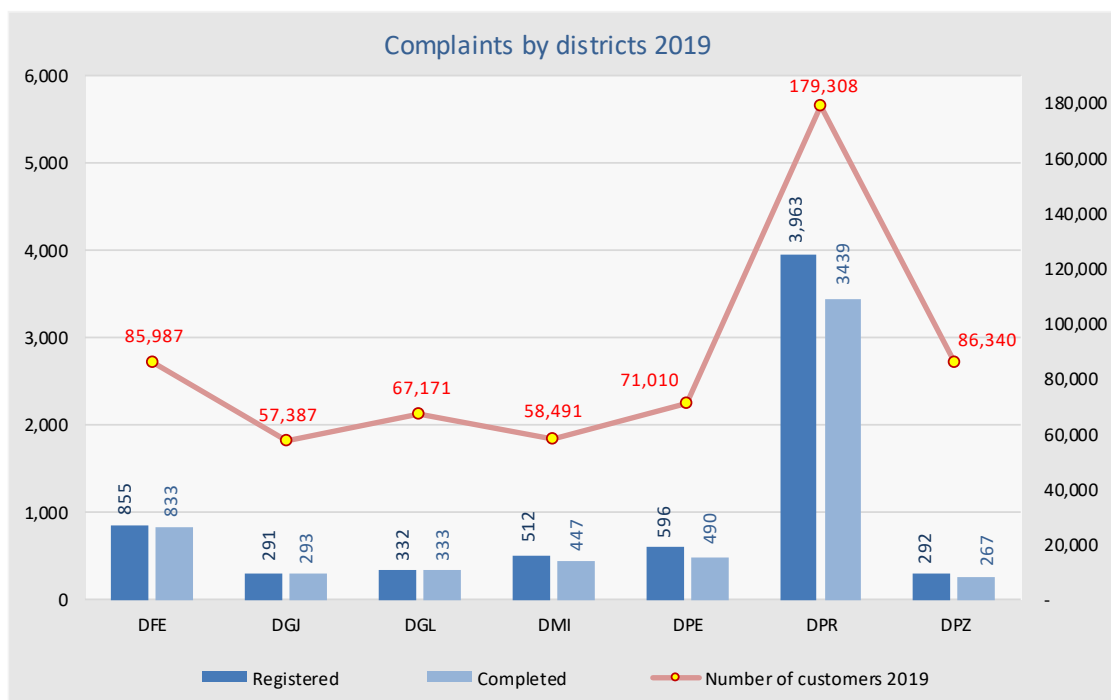


Fig. 6.35 Complaints and number of customers by districts, 2019

The figure above shows that the highest percentage of customer complaints registered with KESCO during 2019 is in the district of Prishtina with 57.93 %, followed by the district of Ferizaj with 12.50 %, whereas the lowest percentage is in the district of Gjakova with 4.25 %. It should be stated that the highest number of complaints in the district of Prishtina mainly result from the fact that the district of Prishtina has the highest number of customers in Kosovo. Also the figure above shows that the highest percentage of customer complaints resolved by the KESCO's Customer Department compared to the total number of complaints resolved at the national level it is in the district of Pristina with 56.36%, followed by Ferizaj district with 13.65%, while the lowest is in the Prizren district with 4.38%.

Below is the report of customer complaints submitted to KESCO with the number of invoices/ customers by months.

Tab. 6.27 Complaints report and number of customers by months for 2019

Month	Complaint	Number of invoices / customers	Complaint/customer ratio
January	819	582,425	0.14%
February	747	583,930	0.13%
March	568	585,590	0.10%
April	496	587,633	0.08%
May	609	589,963	0.10%
June	484	591,850	0.08%
July	535	594,265	0.09%
August	485	596,751	0.08%
September	480	598,301	0.08%
October	580	601,159	0.10%
November	514	602,847	0.09%
December	524	605,694	0.09%
Total	6,841	7,120,408	0.10%

From the data reported by the supplier KESCO, it is seen that the number of complaints registered during 2019 is 6,841, which represents 1.13% of the total number of customers, respectively 0.10% of the total number of annual invoices.

The data show that the highest percentage of resolved complaints compared to registered complaints for the period January - December 2019 was realized in the district of Gjakova (report of completed complaints/registered complaints) with 100.69%, followed by the district of Gjilan with 100.30%, while the lowest in the district of Peja with 82.21%. It is worth noting that in some districts there is a percentage higher than 100%, and this is due to the fact that in addition to the registered complaints of that period, the districts have managed to review some complaints transferred from last year.

The figure below shows the number of registered and resolved complaints according to the nature of complaints for 2019.

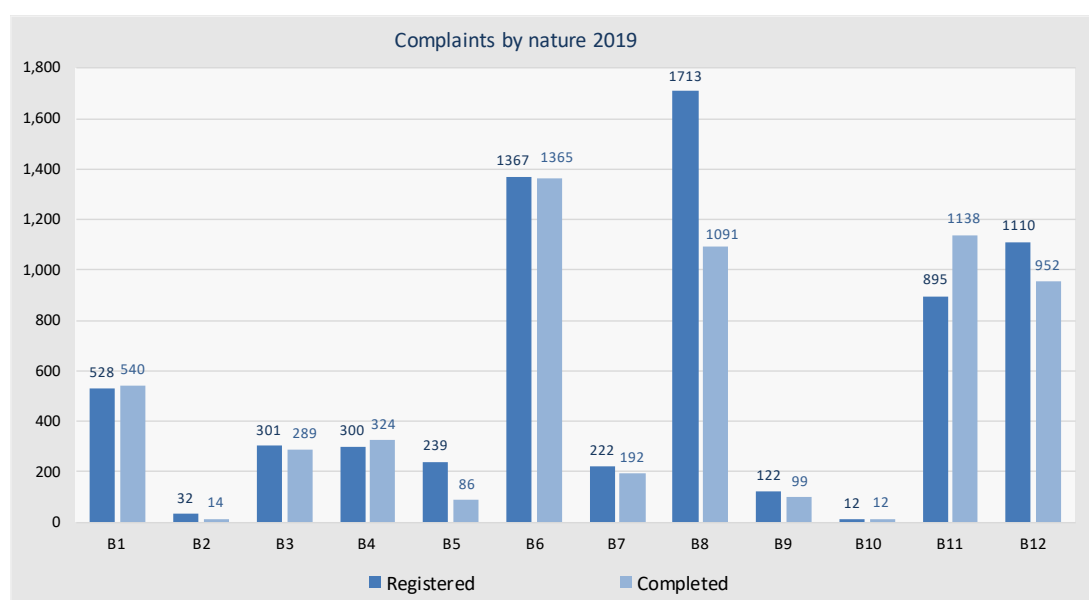


Fig. 6.36 Customer complaints by nature for 2019

Find below descriptions of complaints' nature:

B1 - Unregistered payment

B2 - Error in initial balance

B3 – Invoice is not taken

B4 – Over the limit

B5 – Change of the lump sum

B6 – Incorrect reading

B7 – Irregular reading

B8 - Incorrect calculator

B9 – Request for debt settlement

B10 - Disconnection without notice

B11 - Others

B12 – Unauthorized use of electricity (Recovery of losses)

From the data reported by KESCO for 2019, it is noted that from the total number of customer complaints, the most complaints were related to the incorrect metering, precisely 1,713 or expressed in percentage 25.04%, followed by complaints regarding incorrect readings with 1,367 or expressed as a percentage 19.98%, while the lowest number of complaints was related to the disconnection without notice with 12 complaints or 0.18%.

According to KESCO data, in 2019 the complaints of registered customers which were related to reading errors in the metering point (incorrect reading and irregular reading) were 1,589 or expressed in percentage 23.23% of the total number of submitted customer complaints, in 2018 the number of complaints that were related to errors in reading the metering point were 1500, in 2017 there were 3,955, in 2016 there were 4,504, and in 2015 there were 5,312. From this it is clear that the number of customer complaints regarding errors in reading the metering point is declining, and this is due to the new way of reading the measuring point by means of the hand device ("Hand Held Unit") which has significantly improved the reading of the measuring points and has reduced the possibility of errors when reading the metering point, because the reading and billing is done at the same time

Below is the figure with the data of the complaints resolved by KESCO for 2019, or more precisely the status of the resolved complaints.

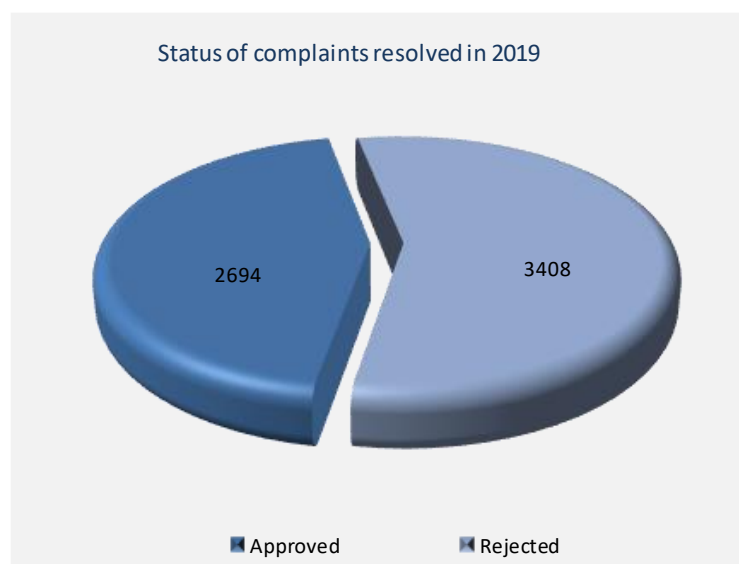


Fig. 6.37 Status of resolved customer complaints for 2019

The figure above shows that KESCO from 6,102 resolved customer complaints, of which 2,694 complaints were approved in favour of the customer or 44.15%, while 3,408 rejected, or in percentage 55.85%.

The total number of customer complaints registered in 2019 is 6,841, in 2018 it is 8,040, in 2017 it is 11,350, in 2016 it is 11,180, in 2015 it was 12,926, while in 2014 it was 17,655 as presented in the following figure.

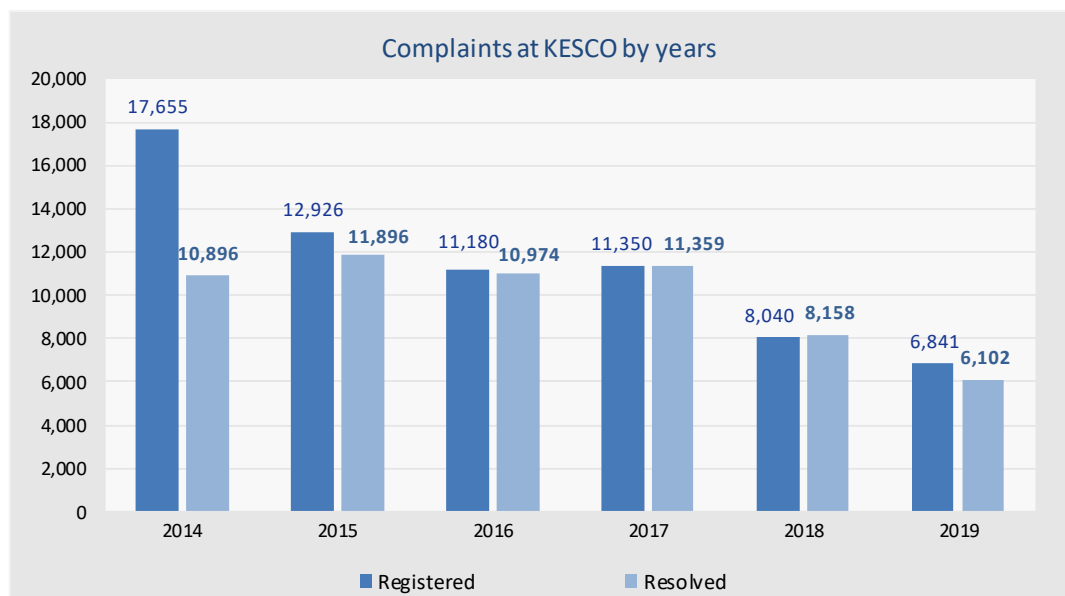


Fig. 6.38 Customer complaints to KESCO by years

7 THERMAL ENERGY SECTOR

Thermal energy sector in Kosovo consists of four systems: DH Termokos – Prishtina, DH Gjakova – Gjakove, DH Termomit – Mitrovica, and DH in Zvečan. This sector has a fairly limited extent locally, fulfilling 3 - 5% of total heating demand in Kosovo.

Thermal energy sector in Kosovo consists of 4 district heating systems, with an installed capacity considered to be around 332 MW_{TH}. District Heating of Termomit and Zvečan, due to notorious circumstances, have not responded to requirements for licensing/regulation and monitoring of ERO, thus making impossible to ensure relevant updated data; to this end, find below detailed data on DH Termokos and DH Gjakova

7.1.1 Thermal energy generation plants

Thermal energy generation plants of DH Termokos consist of main district heating with a total installed capacity of 120 MW_{TH}, and auxiliary district heating in the University Clinical Centre with a capacity of 14 MW_{TH}. Upon the connection of the thermal energy extraction station in B1 and B2 units of TPP Kosova B, the installed capacity of cogeneration of 140 MW_{TH} was added to this capacity. It should be mentioned that boilers with heating fuel in DH Termokos have not been decommissioned, but they will serve as reserve capacities to be activated in cases of possible failure in TPP Kosova B units.

District heating of the city of Gjakova consists of two boilers with heavy oil, with a total installed capacity of 38.6 MW_{TH} – one with generating capacity of 20 MW_{TH} and the other with capacity of 18.6 MW_{TH}.

7.1.2 Thermal energy distribution systems

Thermal energy distribution systems in Kosovo consist of primary distribution network which extends until the point of supply in substations, and secondary network, which extends from supply point in substations, to the final users.

Primary distribution network of DH Termokos has a length of around 41 km respectively pipeline length of 82 km. An integral part of the distribution network is also the pump and heat exchangers station located at Bregu i Diellit and 465 active substations which are dividing points between the primary and secondary network. In addition to the existing distribution network, the network for transporting thermal energy between TPP Kosova B – DH Termokos has been constructed in 2014, in a length of around 10.5 km.

Primary distribution network of DH Gjakova has a length of around 15.5 km respectively pipeline route in length 31 km. This network consists of around 180 active substations, which are dividing points between the primary and secondary network.

A summary of the technical characteristics of district heating systems of DH Termokos and DH Gjakova is shown in the following table.

Tab. 7.1 Technical data of District Heating systems

Company (city)	Installed capacity [MW]	Operational capacity [MW]	Thermal energy network	
			Length of network (track) [km]	No. of substations
	2 x 58 = 116	2 x 49.3 = 98.6	Rrjeti i shpërnd.	
TERMOKOS (Prishtina)	2 x 7 = 14	2 x 6.3 = 12.6	41.0	475
	1 x 4 = 4	3.6	Transp.network	(aktive-465)
	[Cogeneration] 2 x 70 = 140	2 x 68.7 = 137.4	10.5	
Sub-total	274.0	252.2	51.5	475
DH GJAKOVA (Gjakove)	1 x 20 = 20	1 x 14.8 = 14.8	Distrib. Network	302
	1 x 18.6 = 18.60	1x13.02 = 13.02	15.5	(active-180)
Sub-total	38.6	27.8	15.5	302
Total	312.6	280.0	67.0	777 (Active - 645)

7.2 Main Developments in Thermal Energy Sector

7.2.1 Developments in DH Termokos

The qualitative and stable supply of thermal energy over the recent years has increased interest for a wider inclusion of potential customers from the city of Prishtina into the DH Termokos system. In order to meet the growing demand for connection to the DH Termokos system, during 2019 a number of development projects have been updated, mainly in the distribution network, which are in different stages of development.

In May 2019 began the implementation of the European Commission IPA 2015 Project: Rehabilitation of the network of substations and network expansion and new substations. Within this project, execution of construction and installation works will include the following main components:

- Rehabilitation of the distribution network (replacement of old pipelines with new pre-insulated pipes) - 3.28 km of respectively 6.5 km of pipeline; rehabilitation includes the regions: Center: 1 km track, Dardani: 0.79 km track, Kodra e Diellit: 1.18 km track, Ulpiana 0.24 km track and Calabria a very short segment of only 0.07 km.
- Rehabilitation of 100 thermal substations - Dardania: 26, Center: 9, Ulpiana: 21, Kodra e Diellit: 8, UCCK: 5 and various Institutions: 31 thermal substations. The rehabilitation also includes the installation of 100 regulating valves (control) of the differential pressure.
- expansion of the network in total 3.96 km of route respectively 7.92 km of new pipeline - Center: 0.66 km of route, Kodra e Diellit: 0.048 km of route, 0.574 km of route, Dardania: 0.617 km of route, Calabria: 1,028 km of route and Mati: 1,035 km of route
- 51 New thermal substations - Center: 9, Ulpiana: 4, Calabria: 31, Mati: 5 and 1 Thermal substation of the Kosovo Customs Directorate.



Fig. 7.1 Views from the works on the rehabilitation of the network and substations

With the finalization of this project will be achieved to reduce the thermal energy losses and improve the quality of heating in some parts of which are more problematic, as well as network expansion will increase the number of customers who receive thermal energy supply (central heating), respectively, it is possible to increase the heating area of the spaces covered by the District Heating supply service from Termokos.

In the wake of efforts to address the expansion of the District Heating system but also environmental issues, the project for obtaining thermal energy from solar panels has been initiated. Specifically, in November 2019, was presented the Pre-Feasibility Study funded in cooperation between the German Development Bank (KfW) and the European Bank for Reconstruction and Development (EBRD).

This project includes solar collector plants (solar panels) in an area of about 73,000 m² and a hot water tank with a volume of about 540,000 m³ and is planned to have a maximum heat capacity of 29MW. This will enable the provision of heating (i.e. the possibility of expanding the system) for the neighbourhoods Arbëria and Tophane, which are currently not included in the system of DH Termokos. In addition to providing adequate and quality heating for thousands of new customers in these two neighbourhoods, it would be effective to eliminate the use of coal and firewood for individual heating of homes and buildings, which would significantly contribute to the improvement of air quality in Prishtina.

In March 2018, the financial agreement was signed between the German Government and the Government of Kosovo for financial support within the Program for the energy sector VIII and IX - the project for rehabilitation and expansion of the network of DH Termokos. This project led by the German Development Bank (KfW) is in the preparatory phase and contains 2 main components:

- Rehabilitation and expansion of DH Termokos distribution network;
- Modernization of existing substations and construction of new substations, as well as construction of reservoirs for heat storage.

This project, which is the initial preparatory phase, is expected to be worth approximately €14 million, funds pledged as donations from Germany, Luxembourg, Sweden, funds to be allocated and managed through KfW, and a small amount from the Municipality of Prishtina.

In December 2019, the company was selected for the implementation of the project: "Measurement of central heating". Specifically, within the MCC-US 'Reliable Energy Spectrum' Program ("Millennium

Challenge Corporation"), the installation component of thermal energy meters for DH Termokos customers has been included, with the aim to switch to consumption based billing, in which case efficient use of thermal energy is achieved. This project, estimated at \$ 10.9 million, as a donation from MCC - USA, contains:

- Installation of individual thermal energy meters, respectively heat allocators;
- Installation of thermostatic valves and circulating pumps;
- Development of software for billing and reading of thermal energy consumption;
- Assistance in improving billing services based on measured consumption.

The implementation of this project, which is expected to begin in 2020, will enable the measurement of consumption and the implementation of billing based on the recorded measurement of consumption, which will save thermal energy that will release the capacity to expand the customer base, respectively will enable the connection to the heating system of a significant number of customers who currently use electricity for heating their space.

Regarding the development projects, it should be noted that in the session of date July 10, 2019, ERO Board has approved the Ten (10) year Development Plan of DH Termokos. The Development Plan presents the effective measures that will be taken to guarantee the suitability of the system and to provide the best possible supply of thermal energy (central heating), including plans for rehabilitation projects and expansion of the infrastructure of the District Heating system in the municipality. of Prishtina, during the next ten (10) years.

7.2.2 Developments in DH Gjakova – Fuel Change and Cogeneration Project

Regarding DH Gjakova, initially it must be emphasized that despite the financial difficulties in supplying of sufficient quantities of heavy fuel oil, owing to subsidies from Kosovo budget, DH Gjakova managed, since 25 November 2018, to start generation and supply of customers with thermal energy.

With regards to the project for the new district heating with biomass of the DH Gjakova, it is worth mentioning that during 2019 the tender procedures for the execution and supervision of construction and installation works have been completed and the drafting of the detailed project of the new heater has been drafted. While in December 2019, the realization of the Project for construction of the new heater and the cogeneration unit with biomass fuel has started. This project in the amount of € 13.5 million is financially supported by the European Commission – Office in Kosovo through IPA-2015 funds

- 2 units generating only thermal energy: with capacity $2 \times 5.5 \text{ MW}_{\text{TH}}$
- 1 unit of cogeneration (co-production) of electricity and thermal with thermal capacity: 4 MW_{TH}; and Electrical Capacity: 1.2 MW_{EL}
- Total thermal capacity: 15MW_{TH} and Electric capacity 1.2 MW_{EL}

The project, among others, includes the installation of appropriate equipment for the new heater and connection to the network of distribution of thermal energy and electricity.

This project will enable operational and financial sustainability of DH Gjakova, where specifically the main impact is the replacement of fuel - heavy fuel oil (which due to the high cost is largely subsidized

by the Kosovo Budget) with biomass. In addition to providing quality heating to customers with district heating, this project also has a positive impact on increasing energy efficiency and protecting the environment.

On 27 November 2019, ERO Board has issued the final authorization for construction of energy generation capacities, which includes the inclusion in the support scheme (feed-in tariff) of generating capacity of electricity of 1.2 MWEL as part of the cogeneration unit.

7.3 Performance of District Heating Companies

In the 2018/2019 season, DH Termokos has continued with the positive trend of production and sustainable supply of thermal energy, offering uninterrupted supply 24 h, which is mainly a result of sufficient production from cogeneration plants in TPP Kosovo B, but also realization of network rehabilitation projects and thermal substations.

Regarding DH Gjakova, it should be mentioned that, owing to subsidies from the Government of Kosovo, it has managed to start production and supply of thermal energy in the 2018/2019 season. However, due to financial constraints, DH Gjakova has been forced to shorten the heating season to about 3.5 months (second half of November 2018 - February 2019). Also during this period, it has provided a reduced daily supply and has significantly reduced the heating surface, ie the number of customers that were provided the supply, focusing on more regular paying customers and parts of the network where there is less loss of thermal energy

7.3.1 Production, Supply and Losses in DH Termokos

- Thermal energy production

DH Termokos bases the production of thermal energy on cogeneration plants in TPP Kosova B; in fact, in 2018/2019 season, the entire thermal energy production was from cogeneration plants in TPP Kosovo B, so the activation of boilers with heating oil in DH Termokos was unnecessary.

The amount of thermal energy extracted from cogeneration in the 2018/2019 season was **235,079 MWh_{TH}**, which is 11,341 MWh_{TH} or 5.07% greater than the amount of thermal energy last season (223,738 MWh_{TH}). While the amount of thermal energy received at the heat exchange station in DH Termokos was **229,661 MWh_{TH}**, which also represents an increase of 9,907 MWh_{TH} or 4.41% compared to last season (219,954 MWh_{TH}).

Summarized data of thermal energy production from cogeneration is presented in the following table:

Tab. 7.2 Production of thermal energy from cogeneration

Thermal energy from cogeneration – DH Termokos, 2018/2019 season			
Month	Unit	Extracted the. en. (measured in TPP Kosova B)/Gross Production	Received the. en. (measured in DH Termokos)/Net production
October 2018	MWh _{TH}	13,703	13,589
November 2018	MWh _{TH}	29,583	28,988
December 2018	MWh _{TH}	44,912	43,698
January 2019	MWh _{TH}	48,391	47,647
February 2019	MWh _{TH}	40,778	39,899
March 2019	MWh _{TH}	36,744	35,289
April 2019	MWh _{TH}	20,968	20,551
Total	MWh_{TH}	235,079	229,661

- Thermal energy supply

DH Termokos, in 2018/2019 season has marked a significant improvement in quantity and quality of the thermal energy supply, which is mainly due to continuous improvements in the thermal energy production, as well as the maintenance and repairs of the network.

Customers' supply with thermal energy (central heating), in this season was considered to be **209,533 MWh_{TH}**, which represents an increase of **9,671 MWh_{TH}** or around 4.84 % compared to the previous 2017/2018 (**199,862 MWh_{TH}**) season. Such supply is quite satisfactory and fulfilled the plans and objectives for a sufficient and qualitative supply

- System losses

The thermal power system of DH Termokos has its own specifics in terms of losses in the system, due to the integration of thermal energy from cogeneration. Therefore, system losses include two components: losses in transmission network from TPP Kosova B- DH Termokos and losses in primary distribution network

Losses in the transportation network of thermal energy TPP Kosova B- DH Termokos in a length of 10.5 km are determined from the measurements carried out in the heat exchange station (thermal energy production station) in TPP Kosova B and in heat exchange station in DH Termokos. Based on the measurements carried out for the period October 2018 – April 2019, the quantitative losses in this period amount to **5,418 MWh_{TH}** namely **2.3%**. Details on losses in the thermal energy transmission network are given in the following table

Tab. 7.3 Losses of thermal energy in transmission network TPP Kosova B – DH Termokos 2018/2019 season

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Extracted Thermal Energy - measured in TPP Kosova B [MWh]	13,703	29,583	44,912	48,391	40,778	36,744	20,968	235,079
Received Thermal Energy – measured in DH Termokos [MWh]	13,589	28,988	43,698	47,647	39,899	35,289	20,551	229,661
Losses in energy quantity [MWh]	114	595	1,214	744	879	1,455	417	5,418
Losses in [%]	0.83%	2.01%	2.70%	1.28%	1.46%	1.30%	1.30%	2.30%

Losses in primary network of thermal energy distribution are normally determined by the metering of thermal energy at the entrance of distribution network and from thermal energy supply in customers substations. But, due to the lack of total measurement of supplied thermal energy quantity (in substations), several approximations for the calculation of supply were done, first using parameters such as, specific demand for heating capacity (W/m²) and full load hours, namely specific consumption (kWh/m²). The estimated consumption value is **209,533 MWh_{th}**. By subtracting this consumption value from thermal energy brought into the distribution network (**228,841 MWh_{th}**) it results that quantitative losses in distribution network for 2018/2019 season are **19,308 MWh_{th}**, which in percentage represents **8.44%**; This level of losses of 8.4% represents a decrease of 0.4% compared to last season (8.8%).

Table below present summarized data on total production, supply and losses in system – thermal energy transport network and distribution network:

Tab. 7.4 Energy performance in DH Termokos – 2018/2019 season

DH Termokos - Heating season 2018/2019		
Description	Njësia	Vlera
Gross production in heating plants	[MWh _{th}]	0
Gross production in cogeneration plants	[MWh _{th}]	235,079
Quantitative loss in transport network (TPP Kosova B - DH Termokos)	[MWh _{th}]	5,418
Losses in percentage in transport network	[%]	2.30
Own consumption	[MWh _{th}]	820
Thermal energy net production	[MWh _{th}]	228,841
Quantitative losses in distribution network	[MWh _{th}]	19,308
Losses in percentage in distribution network	[%]	8.44
Customer supply with thermal energy	[MWh _{th}]	209,533

7.3.2 Production, supply and losses in DH Gjakova

- Thermal energy production

DH Gjakova bases thermal energy production on heating boilers with heavy oil. As stated above, during 2018/2019 season thermal energy production was quite reduced – gross production has been **9,112 MWh_{th}** while net production of thermal energy was **8,637 MWh_{th}**. For the production

of this season **1,152 ton** of fuel oil has been spent. It should be noted that, according to the company reported data, there has been a low thermal and heating efficiency of around 70%.

- Thermal energy supply

During 2018/2019 season, DH Gjakova offered a reduced supply, as a consequence of season dimidiation and reduction of heating surface. The customer's supply with thermal energy for this season was 6,909 MWh_{TH}, an amount that does not nearly cover the customer demand for heating who are connected in the DH system of Gjakova.

- System losses

With regard to the losses in thermal energy production, it must be initially noted that, because several measurements are lacking i.e. are considered as not very reliable due to the age of equipment, the determination of losses also includes several pre-assessed parameters, e.g. efficiency of boilers and the value of own consumption. The boilers efficiency for thermal energy production has been assessed to be very low around 70%, which causes significant losses during the process of transforming fuel energy into thermal energy, which is assessed to be 3,905 MWh_T.

Losses in primary distribution network are calculated as differences between the amount of thermal energy brought into distribution and supply/consumption network. In absence of metering the amount of supplied thermal energy (in substations), for the calculation of the supply some approximations were made by using primarily the parameters such as: specific demand for heating capacity (W/m²) and full load hours namely specific energy consumption (kWh/m²). Thus, the estimated value of consumption is **6,909 MWh_{TH}**. By subtracting this value of consumption from the amount of thermal energy brought into the distribution network (**8,637 MWh_{TH}**) it turns out that the quantitative losses in the distribution network for 2018/2019 season are **1,728 MWh_{TH}**, which in percentage are 20%.

Table below presents aggregate data on total production, supply and losses.

Tab. 7.5 Energy performance of DH Gjakova –2018/2019 season

DH Gjakova - Heating season 2018-2019		
Description	Njësia	Vlera
Fuel quantity – heavy oil	[ton]	1,152
Calorific value	[MWh _{th} /ton]	11.3
Energy entered from fuel – heavy oil	[MWh _{th}]	13,017
Boilers efficiency	[%]	70.00
Thermal energy gross production	[MWh _{th}]	9,112
Own consumption	[MWh _{th}]	475
Thermal energy net production/Energy entered in distribution network	[MWh _{th}]	8,637
Quantitative losses in distribution network	[MWh _{th}]	1,728
Losses in percentage	%	20.01
Customer supply with thermal energy	[MWh _{th}]	6,909

7.4 Overall production, supply and losses of thermal energy

The following table presents the summarized data on production, supply and losses in the system for the entire sector of thermal energy.

Tab. 7.6 Energy performance of thermal energy sector –2018/2019 season

Thermal Energy Sector - 2018/2019 season				
Description	Unit	DH Termokos	DH Gjakova	Total
Thermal energy gross production	[MWh _{th}]	235,079	9,112	244,191
Quantitative losses in transport network	[MWh _{th}]	5,418	0	5,418
Losses in percentage in transport network	[%]	2.30	0.00	2.30
Own consumption	[MWh _{th}]	820	475	1,295
Thermal energy net production	[MWh _{th}]	228,841	8,637	237,478
Quantitative losses in distribution network	[MWh _{th}]	19,308	1,728	21,036
Losses in percentage in distribution network	[%]	8.44	20.01	8.86
Customers supply with thermal energy	[MWh _{th}]	209,533	6,909	216,442

7.5 Billing, collection and heating surface

7.5.1 Billing and collection

With regard to the billing, initially should be noted that during the 2018/2019 season as well, the billing of thermal energy customers was mainly based on heating surface (per square meter while a smaller number of customers are billed based on measured consumption. Specifically, in DH Termokos the number of customers billed by measurement has reached 105 customers, mainly commercial and institutional; while DH Gjakova in the absence of functional meters almost completely bills according to the heating surface.

DH Termokos in the 2018/2019 season recorded a billing growth compared to the previous season 2017/2018, which is mainly due to the continuous improvement of supply. In fact, the billing in the 2018/2019 season was **€ 6,288,796**, which represents an increase of € 247,136 or 4% compared to the 2017/2018 season (€ 6,041,660). However, even in this season is not reached planned billing level mainly due to: i) deductions in billing due to days without heat and because of the poor quality of supply (in some neighbourhoods of Pristina); and ii) discounts on the heating surface after field verification.

From the total billing realized in the 2018/2019 season of **€ 6,288,796**, metered billing was **€ 2,457,164** and unmetered billing was **€ 3,831,632**; the ratio of measured and unmeasured billing as well as the respective values are presented in the diagram below.

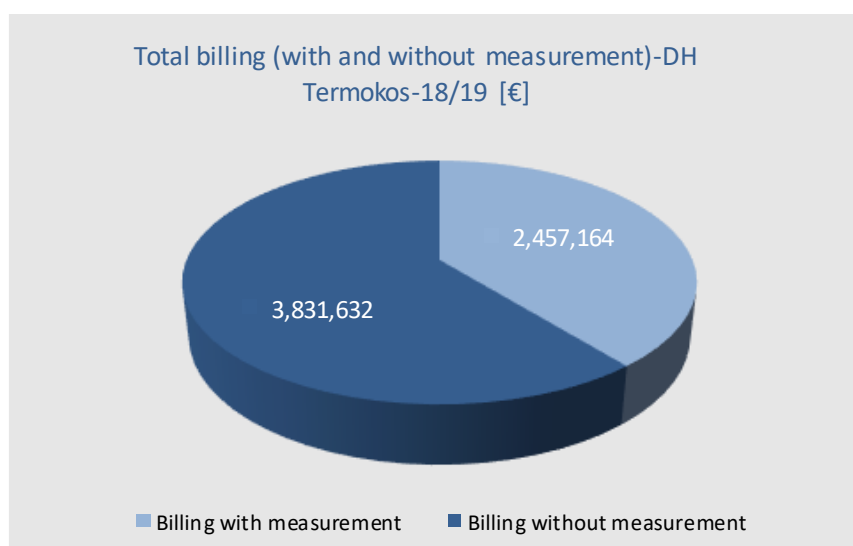


Fig. 7.2 Participation of invoicing values with and without measurement in total billing

As a result of the increased billing but also the improvement in collection, the amount collected has increased compared to last season - in the 2018/2019 season the amount collected was **€ 4,456,254** while the amount collected in the 2017/2018 season was € 3,812,371, representing an increase of € 643,833 or 16.9%. Also, if we refer to the percentage of collection, in this season there is an increase of the percentage of collection compared to last season - in the 2018/19 season the collection percentage was 70.86% while in the 2017/18 season the collection percentage was 63.59%, which represents an increase of 7.27%.

As noted above, DH Gjakova during the 2018/2019 season has provided a reduced supply, as a result of halving the heating season and reducing the heating surface. Consequently, billing this season has been quite small - **€ 312,323**, while the collection as a monetary amount has reached the value of **€ 250,301**, which represents a collection rate of 80.14%.

Details regarding billing and collection are shown in the table and graph below.

Tab. 7.7 Billing and collection - season 2018/2019

Heating season 2018/2019	Heating surface [m ²]	Participation in percentage	Billing [€]	Collection [€]	Collection Rate [%]
NQ "Termokos" Prishtina					
Household	738,413	57.05%	2,979,629	2,266,135	76.05%
Commercial and institutional	555,835	42.95%	3,309,167	2,190,119	66.18%
Total	1,294,248	100.00%	6,288,796	4,456,254	70.86%
NQ "Gjakova" Gjakove					
Household	34,559	45.34%	114,390	97,314	85.07%
Commercial and institutional	41,670	54.66%	197,933	152,987	77.29%
Total	76,229	100.00%	312,323	250,301	80.14%

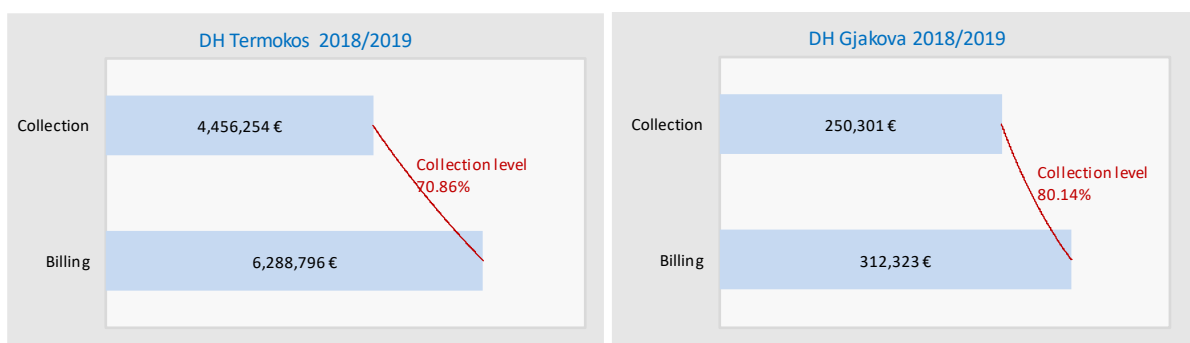


Fig. 7.3 Invoicing and collection at DH Termokos and DH Gjakova - season 2018/2019

7.5.2 Heating surface

DH Termokos, in 2018/2019 season, had total customer heating surface of **1,294,248 m²** which represents an increase of 23,468 m² or around 1.85% compared to the heating surface in 2017/2018 season (**1,270,780 m²**).

While DH Gjakova, due to the above mentioned reasons, in 2018/2019 season significantly reduced the heating surface in just **76,229 m²**.

Graphs presented below show the heating surface for DH Termokos and Gjakova, divided by the customers groups.

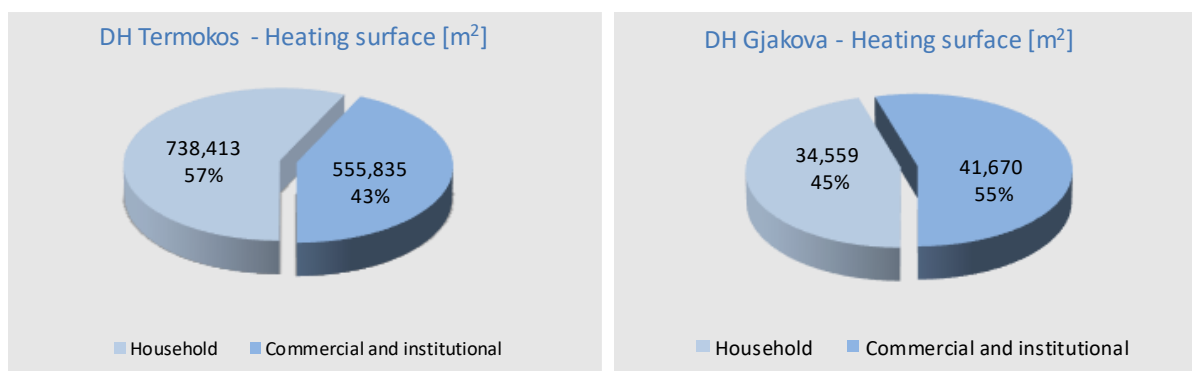


Fig. 7.4 Heating surface by groups of customers in 2018/2019 season

8 NATURAL GAS SECTOR

8.1 Perspective of the development of natural gas sector in Kosovo

In order to create the perspective for development of natural gas sector and fulfil obligations that Kosovo has as a full member in Energy Community Treaty, in June 2016 has adopted the Law No. 05/L-082 on Natural Gas within the energy laws package

This law transposes the third package of European legislation relevant to natural gas, mainly:

- - Directive no. 2009/73 / EC on the Common Rules for the Internal Market of Natural Gas; and
- - Regulation no. 715/2009 / EC on Access Conditions in Natural Gas Transmission Networks.

Law on natural gas lays the foundations of legal and regulatory framework for the transmission, distribution, storage and supply with natural gas and the operation of gas transmission and distribution systems. Consequently, this law determines the organization and functioning of the natural gas sector and access to networks and gas market.

Kosovo Energy Strategy 2017-2026 in Objective '4' has included the development of natural gas infrastructure, through the connection with gas infrastructure projects in the region of Southeast Europe, especially with the TAP pipeline project ("Trans-Adriatic-Pipeline") and gas ring of Energy Community. In this regard, it should be emphasized that a gasification project, namely the development of gas infrastructure is ranked in the priority infrastructure projects – area of energy, approved by the National Council for Investment and the Government of Kosovo

The TAP pipeline project is considered to have a positive impact on the development of gas infrastructure in the Energy Community, namely Southeast Europe region, by providing opportunities to connect the planned regional projects as Ionian – Adriatic Pipeline and ALKOGAP, where both these projects supplement the so-called 'Gas Ring of Energy Community.

TAP is currently in the construction phase, and in 2020 the TAP gas pipeline is planned to start the operation and the first gas flows through this pipeline. TAP's initial capacity is planned to be 10 billion cubic meters (bcm) per year, with the possibility of increasing up to 20 bcm per year. TAP will allow interconnections along pipeline to supply with gas other regional projects. Thus, state agreements with "host countries" (Greece, Albania and Italy) have pre-defined connection sites and quantities, namely gas capacities.

In this context of regional developments in the gas sector, Kosovo has undertaken a number of activities related to current regional gas pipeline projects.

In addition to the Albania-Kosovo Pipeline Project (ALKOGAP), for which the Pre-Feasibility Study for the ALKOGAP project was prepared in 2018, during 2019 other initiatives have been undertaken for other projects of local or regional character.

Master Plan for the development of the natural gas sector in Kosovo

Based on the recommendations from the Pre-Feasibility Study for the ALKOGAP project, in early 2019 Kosovo applied to the WBIF platform ('Western Balkans Investment Framework') for technical assistance in drafting the Master Plan of Gas. At June 2019 meeting of the WBIF Steering Committee, the draft proposal for the Master Plan of Gas in Kosovo was approved and it was decided to financially support the drafting of this master plan, where the leading financial institution is the European Bank for Reconstruction and Development (EBRD); it is planned to start drafting the Master Plan in 2020.

Gas interconnection North Macedonia - Kosovo

In February 2019, the Ministry of Economic Development of Kosovo and the Ministry of Economy of North Macedonia signed a Memorandum of Understanding to intensify bilateral relations in the energy sector; among other things, this memorandum defines the priority areas for cooperation in the electricity sector, natural gas, renewable energy sources, and energy efficiency, as well as in the future preparation of joint projects of infrastructural importance in electricity and natural gas. Following this cooperation, Kosovo and North Macedonia have jointly submitted a draft project/application for the interconnection gas line between the two countries to the WBIF platform. The Steering Committee of the WBIF at its June 2019 meeting approved the financial support for technical assistance in drafting the Feasibility Study and Environmental and Social Impact Assessment for this project; the leading financial institution is the European Bank for Reconstruction and Development (EBRD).

Progress in the development and implementation of these above-mentioned projects is considered important and a necessary precondition for the creation and development of natural gas markets in Kosovo, Albania and North Macedonia. The following are the sketches of these projects:

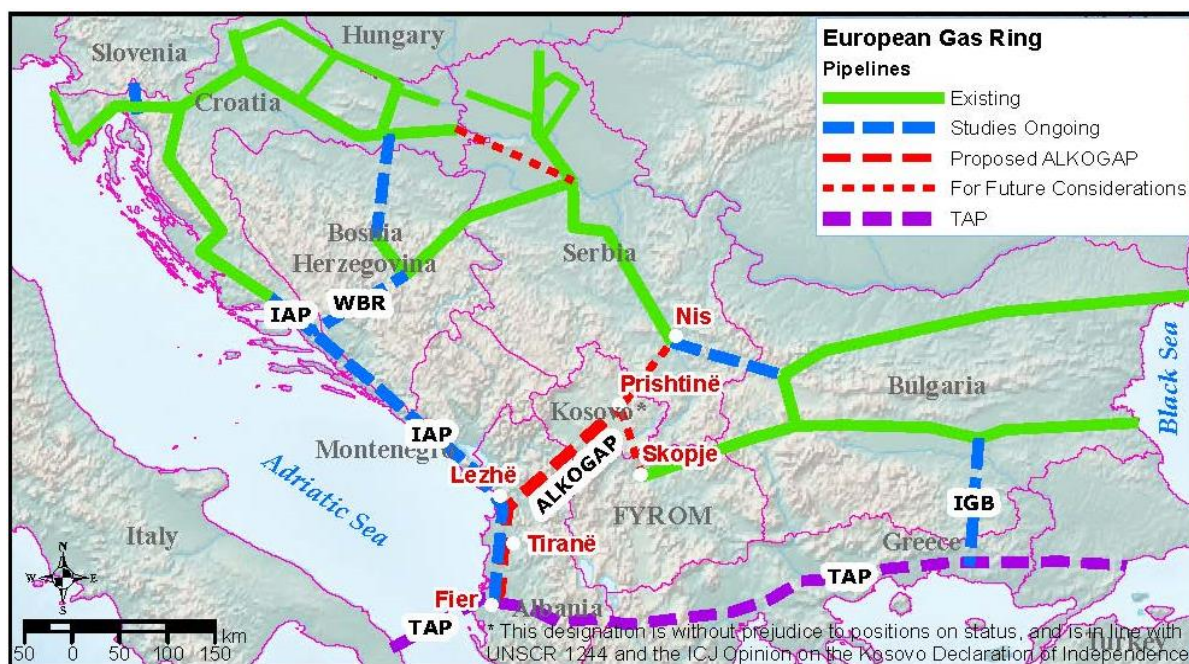


Fig. 8.1 Kosovo regional gas infrastructure projects and options for Kosovo connection (including ALKOGAP and North Macedonia-Kosovo gas interconnection)



Fig. 8.2 North Macedonia-Kosovo gas interconnection line project

During the first part of 2019, ERO has continued to participate in the regional project "Southeast Europe Natural Gas Transmission and Distribution Grid Codes Project" - Southeast Europe Project for gas transmission and distribution codes". This project is implemented by NARUC, USA - National Agency for Regulatory Utility Commissioners with the financial support of the United States Agency for International Development (USAID). In the framework of the implementation of the project with the assistance of NARUC consultants, the 'cost-benefit' model of the analysis for the evaluation of gas infrastructure projects has been prepared.

ERO, this year has continued its regular participation in the work of the Gas Working Group of the Energy Community Regulatory Board (ECRB) and the Gas Forum, as well as in other regional events organized within the Energy Community.

9 CONCLUSION

9.1 Challenges/Recommendations of the Regulator

ERO, as an independent agency was established by the Assembly of the Republic of Kosovo through the Law on Energy Regulator no. 05/L-084, which defines its duties and functions. The legal provisions of the above-mentioned law, emphasize that the activity of ERO is funded by own source revenues, in accordance with the Law on Energy Regulator, Chapter 4, respectively from the taxes collected by enterprises and licensed operators in the energy sector. It should also be mentioned that Articles 21 and 22 of the Law on Energy Regulator clearly state ERO's right to use dedicated revenues. Therefore, the above provisions prove beyond doubt that ERO has the authority and the right to determine its own budget according to specific needs.

The Republic of Kosovo is a Contracting Party to the Energy Community, and as a contracting party it is committed to adopt, but also to apply the Energy Community rules. This includes the Third Energy Package, which envisages strict decision making and financial independence of the energy regulator.

Chapter IX of the Internal Market Directive (Directive 2009/72/EC of the European Parliament and of the Council), namely Article 35.5, requires, inter alia, that Member States ensure that the regulatory authority has a separate allocation from the budget and autonomy in implementation of its budget, ie. provide sufficient financial resources for operating and personnel expenses to fulfill legal duties and obligations.

The Law on Energy Regulator No. 05/L-084 is in full compliance with the 3rd package of EU Energy Legislation; the transposition of these provisions was an obligation from the Energy Community Treaty.

It is worth emphasizing that the European Commission has consistently reacted to the Progress Reports for Kosovo, clearly pointing out the necessity for ERO's budget independence: *"ERO's independence continues to be undermined by government intervention and interventions in the ERO budget process"*.

ERO considers its staff as one of the resources of particular importance and is constantly engaged in supporting them in order to provide the required knowledge, skills and expertise to fulfil their duties and responsibilities at the highest standards. So far, ERO staff is now trained at the highest level possible to fulfil all its duties and competencies. ERO is of the opinion that salaries of staff members should be compatible with the level of salaries of the regulated industry in order to avoid "brain drain" towards the industry and enable ERO to attract and retain human resources qualified and sufficient to carry out its responsibilities. Therefore the involvement of ERO in Law on Salaries in Public Sector strongly risks the departure of qualified ERO staff who can find better-paid and more secure positions outside ERO.

ERO has consistently reacted during the drafting process of the Law on Salaries and addressed letters to the Ministry of Public Administration, Parliamentary Committee on Public Administration, expressing its concerns and disagreements. Despite the clear arguments, the Regulator's objections were not considered. It is worth pointing out that the Energy Community Secretariat on 19 July 2018 has also reacted on the involvement of the Energy Regulator in the Law on the Organization

and Functioning of the State Administration and the Independent Agencies and the Law on Salaries in the Public Sector, clearly pointing out that these laws will seriously undermine the independence of the Regulator. The Energy Community Secretariat therefore considers that the inclusion of the Energy Regulator in these laws is a step backwards and is in contradiction with Kosovo's commitments under the Energy Community Treaty, as well as with the Energy Community Policy Guidelines, PG 02 / 2015, on the Independence of National Regulatory Authorities.

ERO requires from the legislative bodies to be treated as an independent constitutional agency that responds to the Assembly of the Republic of Kosovo, and has autonomy in determining its budget, including staff salaries.

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