

Georgian National Energy and Water Supply Regulatory Commission



Report on Activities of 2018

Tbilisi

2019

Contents

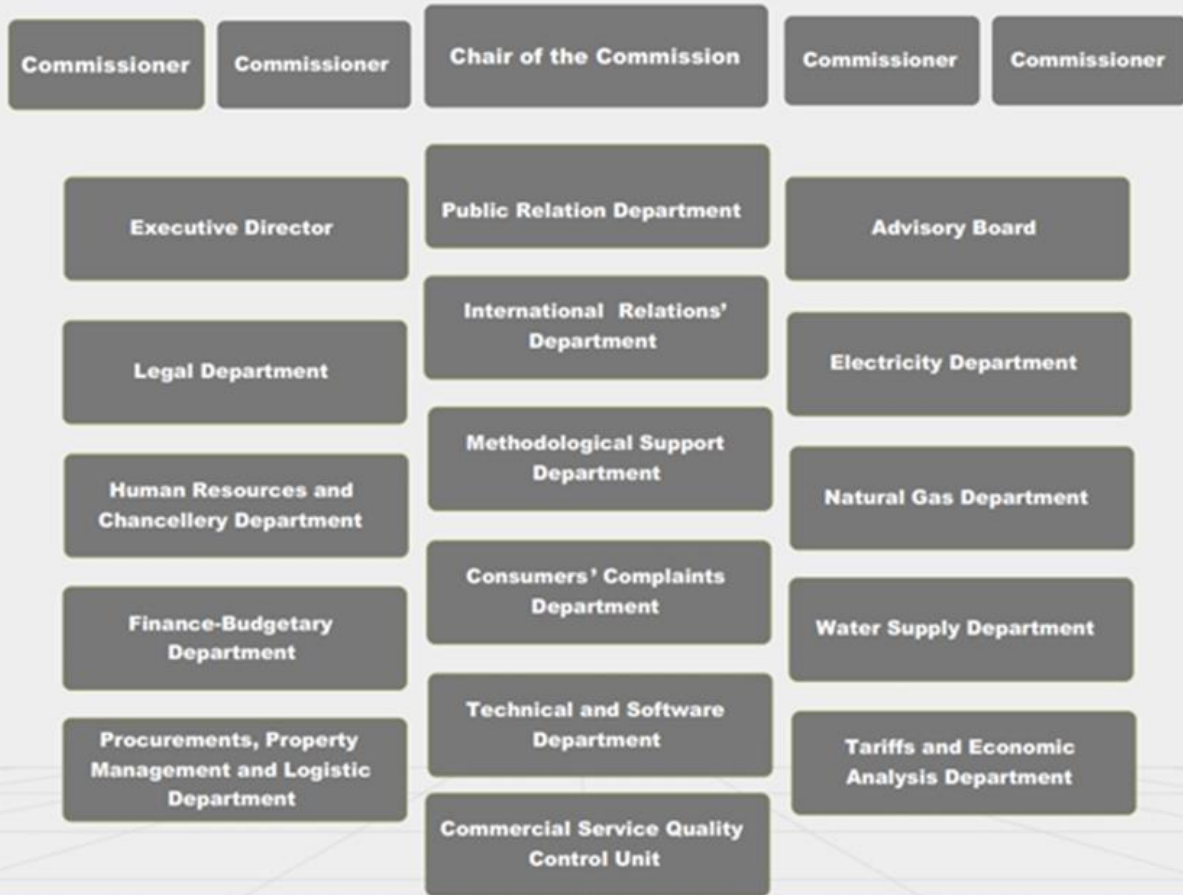
Main Directions and Results of the Commission's Activities	7
1. Electricity Sector	12
1.1. Overview of the Electricity Sector.....	12
1.1.1. Development of the Regulatory Framework.....	12
1.1.2 Current Market Structure and its Participants.....	14
1.1.3 Main Characteristics of the Market.....	17
1.2. Licensing and Technical Regulation.....	29
1.2.1 Licensing Applications and Amendments to the License Registry.....	29
1.2.2. Ensuring the Reliability of the Electricity Supply in the Distribution Network.....	30
1.2.3. Losses in the Transmission and Distribution Networks.....	31
1.3. Pricing and Tariff Regulation.....	33
1.3.1. Legal and Methodological Basis.....	33
1.3.2. Current Tariffs of the Sector.....	33
1.3.3. Analysis of Investment Project Implementation.....	33
1.3.4. Comparative Analysis of Tariffs.....	35
1.4. Promotion of Renewable Energy and Energy Efficiency.....	37
1.4.1. Net-Metering Implementation Results.....	37
2. Natural Gas Sector	39
2.1. Natural Gas Market.....	40
2.1.1. Regulatory Frameworks.....	41
2.1.2 Market structure and its participants.....	42
2.1.3. Functional, legal and ownership unbundling.....	42
2.1.4. Main characteristics of a market.....	43
2.1.4.1. Natural Gas Wholesale Market.....	43
2.1.4.2. Natural Gas Retail Market.....	45
2.2. Licensing.....	52
2.2.1. Natural gas transportation.....	52
2.2.2. Natural Gas Distribution.....	54
2.2.3. License applications and Amendments in License Registry.....	55
2.2.4. Results of Technical Regulation.....	56

2.3. Pricing and Tariff Regulation	57
2.3.1. Legal and Methodological Basis.....	57
2.3.2. Tariff Regulation and Current Tariffs of the Sector	57
2.3.4. Analysis of Investment Project Implementation.....	63
2.3.5. Comparative analysis of tariffs.....	65
3. Water Supply Sector	68
3.1. Regulatory Framework	68
3.2. General Overview of the Sector	68
3.2.1. Licensing.....	69
3.2.2. Service Coverage Area of the Licensees.....	69
3.2.3. Continuity of Water Supply and Metering.....	70
3.3. Proper Functioning of Water Supply Systems and Reliability	72
3.4. Pricing and Tariff Regulation	74
3.4.1. Legal and Methodological Basis	74
3.4.2. Current Tariffs.....	74
3.4.3. Analysis of Investment Project Implementation.....	75
4. Methodological Activities.....	77
5. Commercial Service Quality.....	82
6. Dispute Settlement.....	91
6.1. Overview of the Dispute Settlement Regulatory Framework	91
6.2. Electricity Sector.....	91
6.3. Natural Gas Sector.....	92
6.4. Water Supply Sector	92
7. International Relations.....	94
7.1. International Partner Organizations.....	94
7.2. Relationships with the Energy and Water Supply Sector Regulatory Authorities of other Countries	95
7.3. Implemented and ongoing international projects	95
8. Public Relations	96
9. Publicity of Information.....	98
9.1. Public Hearings and Protocol Proceedings of the Commission.....	98
10. Annexes.....	99
Annex N°1 - List of Licensees in the Electricity Sector.....	99

Annex №2 - Number of Electricity Customers in 2011-2018.....	100
Annex №3 - System Peak Load in 2007- 2018.....	100
Annex №4 - Electricity Losses in Distribution Network in 2018.....	100
Annex №5 – Metering per the Distribution Companies by December 31, 2018.....	101
Annex №6 – Ownership of Electricity Sector Participants	101
Annex №7 – Increasing of Electricity Consumption and Actual Increasing of GDP in 2004-2018*	102
Annex №8 - Current Tariffs in Electricity Sector (without VAT)	102
Annex №9 – Statistics of Natural Gas Distribution Licensees (m ³)	105
Annex №10 – Natural Gas Tariffs.....	106
Annex №11 – Water Supply Tariffs	107
Annex №12 – Electronic Journal Entries at Electricity Sector by standards in 2018.....	108
Annex №13 – Electronic Journal Entries at Natural Gas Sector by standards in 2018.....	109
Annex №14 – Electronic Journal Entries at Water Supply Sector by standards in 2018	109



GEORGIAN NATIONAL ENERGY AND WATER SUPPLY REGULATORY COMMISSION



WWW.GNERC.ORG

Dear Reader,

I am honored to sum up activities of the Georgian National Energy and Water Supply Regulatory Commission (hereinafter, the Commission) and present report of 2018. The Commission has been actively regulating electricity, natural gas and water supply sectors during previous years that promotes healthy competitive environment and economic development within the country.

Throughout 2018 special attention was paid to the protection of consumers' rights. Innovative projects developed and implemented at the Commission has enabled us to get a clear picture of the necessary measures to be carried out in the energy and water supply sectors. Based on the results of the abovementioned projects a number of actions have been undertaken in the direction of improving regulation.

Protection of consumers and at the same time taking interests of the regulated companies into consideration is our main goal for ensuring balance in the process of performing regulatory functions.

2018 has been quite interesting and fruitful in terms of cooperating with leading international organizations and energy and/or water sector regulatory authorities of the different countries. Taking into consideration ongoing and planned reforms in the energy sector of Georgia sharing experience of EU member countries and international organizations. The Commission as one of the main institutes in the EU integration process has been actively participating in the process of improving regulation, legislation and enhancing potential.

It is worth mentioning that the Commission aims at creating efficient and incentivizing regulatory framework, developing the sector and maintaining balance between customers and regulated companies.

I expect that international projects and gained experience will enable us to enhance capacities of the Commission, improve regulatory standards and encourage sustainable and attractive investment environment of the country.

Since 2019 the Commission will actively continue its activities in order to achieve its goals and will cope more efficiently with the challenges on the basis of independence, transparency, fairness and impartiality principles.

I would like to thank you for your interest and present Report on Activities of 2018 of the Commission. I hope that you will be able to obtain exhaustive information not only on the activities of the Commission but also on the status quo of the energy and water supply sectors.

Sincerely,
Irina Milorava
Chair of the Commission
2018

Main Directions and Results of the Commission's Activities

The following main events and trends have taken place in 2018 in the Energy and Water Supply sectors:

Electricity

- Internal consumption of the electricity has increased by 7.6% in comparison to previous year and by 15.9% - in comparison to 2016;
- Annual average growth of the internal consumption of the electricity in Georgia is about 4%, based on the data of 2009-2018;
- Electricity generation (bus bar delivery) has increased by 5.5% in comparison to the previous year and by 5% - in comparison to 2016;
- Based on the data of 2009-2018 annual average growth of the electricity generation (bus bar delivery) constitutes 3.9%;
- Amount of the electricity consumed by electricity distribution companies has been increased by 5.2% in comparison to previous year and by 12.6% - in comparison to 2016;
- Electricity consumed by direct consumers has been increased by 25.2% in comparison to 2016 and by 47.5% - in comparison to 2016;
- Electricity delivered to Abkhazia has decreased by 4% in comparison to previous year and by 0.3% - in comparison to 2016.
- Electricity import has increased by 0.8% in comparison to the previous year and by 2.1 times - in comparison to 2016. Import has exceeded export by 2.55 times during reporting year;
- Electricity export has decreased by 14.1% in comparison to the indicators of the previous year and increased by 5.36% in comparison to the indicators of 2016;
- Transit of the 13, 433 million kWh electricity to Turkey has been carried out throughout the reporting year;
- Actual losses of the electricity in the system have constituted 7.05%, including, 1.97% in the transmission network that is 3% less than the same indicators of the previous year, whereas losses in the distribution network has constituted 5.09% that exceeds the same indicators of the previous year by 5.55%;
- The total installed capacity of the power plants has constituted 4,179.3 MW (hydro – 3,232.2 MW, thermal – 926.4 MW, wind – 20.7 MW), that exceeds indicators of the previous year by 1.6%;
- Electricity distribution (supply) market is highly concentrated ($HHI_{2018}=5,543.43$), where market share of Energo-Pro Georgia JSC is 66.48% and of Telasi JSC – 33.52%;
- Market shares for four largest generators have been distributed in a following manner: Enguri HPP LLC – 33.43%, Gardabani TPP – 9.76%, Vartsikhe HPP LLC - 6.96% and Vardnili HPP – 6.14%. Herfindahl – Hirschman index for the electricity generation segment has been $HHI_{2018}=1,596$;
- After long-term consultations the Commission has reviewed and agreed 5-year Distribution Network Development Plans of Telasi JSC and Energo-Pro Georgia JSC that have been carried out in accordance with the Network Rules adopted by the Commission;
- The Commission has reviewed and partially agreed to the investments of Georgian State Electrosystem JSC for the period of 2018-2020;
- During the reporting year electricity generation facilities have been put into operation with the total installed capacity of 63.96 MW (including 5 small power plants);

- During reporting year 39 new micro generation power plants with 46KW installed capacity have become subject of the net-metering regulation; Total amount of subscribers connected to the net-metering regulation by the end of 2018 has reached 75, whereas the installed capacity has been 739.75 KW;
- Amendments have been introduced to the Resolution N14 of the Commission of July 30, 2014 on “Approving Electricity Tariff Calculation Methodologies” according to which tariffs for electricity generation and transmission licensees will be defined for the 3-year period;
- Based on the amendments of May 4, 2018 made to the Law of Georgia on the “Electricity and Natural Gas”, amendments have been made to the Resolution N34 of December 12, 2017 of the Commission on “Approving Electricity Normative Losses in the Electricity Networks of Georgian Energy System” according to which the Commission defined the total normative losses for Energo-Pro Georgia JSC in an amount of 9.33% after delivery to the network and for Telasi JSC - in an amount of 5.85% after delivery to the network. Those amendments became applicable from May 1, 2018 and will be valid until January 1, 2021;
- Amendments have been made to the Resolution N15 of July 30 of 2014 on “Rules for Calculating Electricity Normative Losses” based on which electricity normative losses in the electrical networks of the Georgian energy system were approved. Those norms were reflected in 3-year tariffs of the network companies for 2018-2020 period;
- Opinions and recommendations were prepared on 10-Year Transmission Network Development Plan for 2018-2028 year;
- The Commission has studied and agreed investment plans for 2018-2020 year of Telasi and Energy Pro Georgia LLC that were approved under the Commission’s decision;
- Electricity generation tariffs for 10 Licensees, electricity transmission tariffs for 3 Licensees, wheeling and consumption tariffs for 2 Licensees have been approved; Hereby, capacity fees and electricity generation tariffs have been approved for 4 guaranteed capacity sources;
- In 2018 2 electricity generation licenses have been issued and 1 generation license has been revoked, hereby amendments have been made to 1 generation license;
- Based on the Report of “Doing Business 2018” Georgia has been promoted by 9 positions in the electricity getting index and currently holds 30th position;
- Regulations concerning transparency have been added to the electricity network rules that regulate availability of data at the electricity market and obligation of their publishing. By implementing new regulation, the Transmission System Operator became obliged to publish the information on electricity system and technical and commercial characteristics of the markets envisaged under “Transparency Regulation” regularly and ensure its availability for the stakeholders. Openness of such information will foster opening of the electricity market, implementation of fair and transparent rules of play, fulfillment of the obligations envisaged under Association Agreement and Energy Community membership.

Natural Gas

- Demand on natural gas has decreased in 2018 by 3.2%. The reason of such decrease was mainly a warm winter;
- Natural gas is still a main source for satisfying energy demand;
- For the purpose of meeting demand in 2018 natural gas has been imported by 4 suppliers. Totally 99.8% of demand of Georgia has been met;

- 33 suppliers have been carrying out supply activities in 2018, out of which 2 have been active only at the wholesale market, 25 - only at the retail market, whereas 6 suppliers were active at both wholesale and retail markets;
- 8 suppliers have traded with available natural gas at Georgian market, out of which share of three largest suppliers constituted 92%;
- In 2018 the average price of so called commercial natural gas at wholesale level has been 0.53 GEL per cubic meter;
- Downward trend is observed in relation to the heating degree days. In 2018 the amount of heating degree days were reduced by 16% in comparison to 2017 meaning that buildings had to be heated by less than 16%;
- Gasification of the new settlements continued in 2018 and as a result amount of retail customers (household and non-household) by the end of the reporting year constituted 1,239,022;
- Average price of natural gas for the commercial customers connected to the distribution network was 0.57 GEL per cubic meter, whereas the same indicator for the commercial customers connected to the transportation system exceeded 0.69 GEL per cubic meters;
- By December 31, 2018 26 distribution licensees operated in Georgia. Including 3 large licensees (KaztransGas – Tbilisi LLC, Socar Georgia Gas LLC and Sakorggas JSC). The aforementioned 3 large distribution licensees have distributed 90% of the total distributed gas;
- The Commission approved Natural Gas Network Rules. The rules define procedures, conditions and principles for managing and using transportation system and distribution network, relationships between the companies acting in the natural gas sector and the recipients of their service;
- The list of gasified settlements, where the connection to the natural gas distribution network was possible by paying fee and complying with the conditions set by the Commission, has been revoked. Instead, the settlements have been defined where connection fee is not applicable at the temporary basis. Therefore, licensees have to ensure connection of customers without fee in 35 settlements (where natural gas distribution is carried out).
- Natural Gas distribution license issued to the Wissol Petroleum Georgia JSC has been revoked and the license of distributing natural gas has been issued to the Telavi Gas LLC;
- The Commission is obliged to approve Uniform System of Accounting for Natural Gas transportation and distribution licensees no later than December 31, 2021.

Water Supply

- Based on the amendments made to the Law of Georgia on the Electricity and Natural Gas the Commission is obliged to draft and approve “Investment Appraisal Rules” by October 2019. For that purposes respective works have been carried out at the Commission (including involvement of foreign experts) and the respective draft has been prepared;
- The Commission has been monitoring the fulfillment of the investment plans by the Georgian Water and Power LLC, Rustavi Water LLC and Mtskheta Water LLC. Due to the fact that the Commission plans to set water supply tariffs for United Water Supply Company of Georgia LLC in 2019, the active works have been carried out with regards to the analyzing its activities in terms of

reasonability of its investment projects, efficiency and justification of the costs incurred. Interim report has been prepared regarding the abovementioned;

- Based on the Resolution N20 of August 23, 2018, the Resolution N18 of August 2, 2018 and the Resolution N29 of December 18, 2018 amendments have been made to the Resolution N32 of November 26, 2008 of the Commission on Drinking Water Supply and Consumption Rules based on which a number of provisions have been newly formulated, specifically, customers have been enabled to submit application (in writing or through official website) to LEPL House of Justice service centers on water supply issues throughout 24 hours; the rule of informing customers electronically has been newly formulated; mechanism for reimbursing charged amounts has been adjusted; amount of information to be inserted in the drinking water bill has increased, certain additions were made to the procedures of connecting new customers etc.
- Reduction of non-revenue water (NRW- all types of losses): in comparison to the previous year actual normative losses have been reduced by 22% (78 mil. cubic meters) for the three companies to which the Commission has set normative losses in accordance with the new methodology (Georgian Water and Power LLC, Mtskheta Water LLC; Rustavi Water LLC),
- In relation to the household customers the number of metered customers has increased by 8.7% (34, 764 subscribers);
- Average schedule of water supply has been increased by 1.6%;
- Actual investments in 2018 have constituted 234,996,000 GEL in total that exceeds the same indicator of 2017 by 13.76% (206, 567, 281);
- Average consumption of household metered customer has increased by 1.3%, whereas the average consumption of the commercial customer by 4%.

Other

- The Commission has launched mystery shopper project. Within the framework of that project a survey has been conducted in order to observe different types of services provided by the companies to the customers. For the purpose of improving observed violations, one month period was given to the companies. At the second stage of survey the Commission checked whether the violations were eliminated by the companies. After revision it was observed that the companies improved quality of service and most of the violations observed throughout initial survey within the Mystery Shopper project were eliminated. The following services are checked within the mystery shopper project: connection of new customer to the network, increasing capacity; request of the personal data by the subscriber; checking technical quality of supply; electronic bill and text message; disconnection/restoration of supply due to the non-payment; scheduled outage; Service of the call center;
- Electronic system of commercial service quality is also very successful that represents an innovative instrument and substantially differs from the previous practice and methods existing throughout the world. With the help of the electronic journal the Commission observes the processes of submitting application to the energy and water supply companies by the customers and the reactions of the company in real time. This is an efficient mechanism for monitoring the companies. Respectively, such system enabled the real time analysis of compliance with approved standards, identification of problematic issues and protection of customers' interests through providing them with the compensation for non-provision of timely services. The amount of compensation issued by the distribution companies to subscribers in the period from January 1,

2017 to December 31, 2018 constituted 4 071 005 GEL. The Doing Business Group awarded the project with the high scores;

- Chair of the Commission, Irina Milorava and Rector of the Georgian Technical University, Archil Prangishvili have signed memorandum of cooperation. The memorandum aims at supporting education of the students of Technical University, increasing awareness in the energy and water supply sectors;
- Commissioner Maia Melikidze became a member of the Presidium of Energy Regulators Regional Association (ERRA). Maia Melikidze has been elected at the abovementioned position with the majority of votes for 2 year term;
- For the purpose to study the internationally recognized success of Georgia in terms of “Simplicity of Doing Business” Governmental Delegation of Republic of Moldova visited the Commission. The Delegation comprised the representatives from the economic council of Prime Minister of Moldova, Ministry of Economy and the Parliament. Members of the delegation expressed interest towards the standard of connecting new customers with the help of single interaction principle;
- Memorandum of cooperation has been signed between the Commission and Water Industries Commission of Scotland that aims at sharing information and experience between regulators of the drinking water and wastewater sectors;
- A memorandum of cooperation has been signed between the Commission and the Service of Accounting, Reporting and Auditing Supervision. The memorandum aims at fostering risk management and cooperation between parties for the purpose of monitoring quality of auditing companies envisaged under the Law of Georgia on Accounting, Reporting and Auditing.
- Memorandum on Developing Various Types of Services has been signed between the House of Justice, National Agency of the Public Registry, Public Service Development Agency. The aim of cooperation between the utilities is to foster quick and efficient development of services in the Energy and Water Supply Sectors. As a result of cooperation the service of registering subscribers with the single interaction principle has been implemented. Citizens can request the change of the registration of subscriber while purchasing the real estate. Customers can also check the payment dues related to the real estate at once;
- In 2018 77 administrative legal acts adopted by the Commission have been appealed at the court of first instance, including 76 – individual administrative acts and 1 normative act. 66 cases have been finalized out of which 50 decisions have been made in favor of the Commission, in 4 cases the plaintiff has called out the claim and the claim remained unconsidered, in one case the Commission was recognized as improper defendant, in one case the proceedings were terminated due to non-existence of litigation subject; in 3 cases the decision was made in favor of the plaintiff;

1. Electricity Sector

1.1. Overview of the Electricity Sector

1.1.1. Development of the Regulatory Framework

The regulatory framework of the electricity sector has been significantly amended during the reporting year that fosters process of approximation towards EU Energy acquis and compliance with the obligations. Amendments have been introduced both to the primary and secondary legal acts, specifically:

1. *Based on the amendments to the **Law of Georgia on the Electricity and Natural Gas (hereinafter the Law)**:*

- The direct consumer of the electricity shall be the person who gets the electricity (capacity) for own consumption from the network of the generation or transmission licensee, whose average total monthly consumption from supply points at that network(s) is no less than 15 million kw/h based on the data of the calendar year and who complies with the requirements set by the “Electricity (Capacity) market Rules” and has voluntarily registered to participate at the wholesale trade as direct electricity customer;
- Registration of the person with the status of customer is irreversible. Respectively, a person registered as the direct customer has no right to request registration as the retail customer;
- The following has been added to the list approved under the normative-administrative act of the Commission:
 - “Service quality rules” – until January 1, 2019;
 - Investment Appraisal Rule – until October 1, 2019;
 - Rule for Monitoring Energy Markets – October 1, 2019;
- Issuance of two or more distribution or water supply licenses has been prohibited in one territorial unit (city, borough, village);
- The period of 180 days from submission of the tariff application to the Commission has been defined as the term for enactment/approving of tariffs instead of 150 days that was envisaged under previous edition;
- Wholesale electricity supplier has been introduced to the electricity market whose function is to purchase electricity from the generation licensee, small power plant, importer and to supply it to the direct customer and exporter;
- The Government of Georgia has been defined to set criteria of registering a person as a direct customer;
- If before it was possible for the to define thermal power plants as guaranteed capacity source, the amendment has become more broad and now it is possible that the power plant in compliance with the respective technical requirements is considered as the guaranteed capacity source;
- Keeping uniform system of accounts is not obligatory for electricity generation and natural gas distribution licensees with less than 50 000 customers;

*2. **Electricity Market Concept** design has been approved under the Order of Minister of Economy and Sustainable development of Georgia, that:*

- That reflects the approach of the Ministry of Economy and Sustainable Development of Georgia towards general structure, organization and functioning of the Georgian electricity market;
- Defines future structure of the electricity market and describes obligations of the market participants;
- Creates a basis for adopting more detailed electricity market concept in accordance with the new law on the Energy and Water Supply which will be approved in 2019;
- Sets guiding principles for the objectives of Georgian organized electricity markets and ways of their achievement that aims at:
 - Formation of the market that is based on main mechanism of competition and associated market price formed through competitive household pricing;
 - Description of new long-term market structure taking into consideration its institutions, management and processes;
 - Formation of market in Georgia that shall encompass day-ahead, intra-day and balance markets (same as organized markets);
 - Strict definition of obligations of leading participants;
 - Detailed description of functional requirements necessary for the implementation;
 - Definition of transitory measures to be carried out during the transitory period (from January 1, 2019 to December 31, 2022);
 - Creation of structure that enables development of the competition at wholesale and retail markets and at the same time ensures healthy investment messages.

3. Based on the amendments made to the primary legislation the following was reflected in the “*Electricity (Capacity) market Rules*”:

- The distribution licensee is obliged to submit the list of retail customers to the market operator before January 15 of each calendar year based on the results of previous calendar year together with the list of connection points of such customers to the network;
- The abovementioned retail customer is not electricity retail customer after the distribution licensee submits the list to the electricity market operator from the February 1 of the calendar year;
- The distribution licensee is obliged to notify retail customer in writing before January 15 of each calendar year about the termination of retail customer status from February 1;
- The respective retail customer shall submit respective documents to the electricity market operator for the purpose of registering as the direct customer for wholesale trade within 5 days after receiving a written notice. Registration of seekers into the wholesale trade participant registry is enacted as of February 1;
- Amendment was made to the rule of formulating balance electricity price purchased and sold by the system commercial operator.

4. Amendment was made to the “*Electricity Network Code*”:

- Requirements of the Regulation N543/2013 (EC) of the European Parliament and of Council on Transparency have been implemented, where requirements and information has been listed that network users are required to submit to the dispatch licensee for the purpose of performing obligations related to transmission network managing and planning and publishing data, it also defines the minimum level of the information that shall be publicly available for market participants;

- The transmission system operator has become obliged to agree Methodology of Calculating Free Capacities in the Transmission Network Sub-stations with the Commission, that implies public official and unofficial discussions and consent of the Commission through issuing its decision;

5. Chapter 4 provides the detailed information on amendments made to the *Electricity (Capacity) Supply and Consumption Rules*.

6. Based on the amendments made to the *Electricity Tariff Setting Methodology* (which was triggered by amendments to the primary legislation):

- Utility has been obliged to submit tariff application to the Commission no later than July 4 of the respective tariff calculation year;
- Those utilities for which tariffs has not been set on the basis of this tariff setting methodology, are not obliged to comply with the terms defined for submission of tariff application, meaning that such utilities are entitled to submit tariff application to the Commission any time and the Commission is entitled to define tariff application period before the end of the last year of the current regulatory period.

7. The Commission has revoked *Service Commercial Quality Rules and Instruction for Monitoring electricity supply indicators by the Electricity Distribution Licensee* and approved *Service Quality Rules* instead, that aims at:

- Improving commercial service quality provided by the distribution licensee to the customers and reliable and uninterrupted supply of the electricity, natural gas and drinking water;
- And sets:
 - Service quality standards, requirements and criteria for service quality;
 - Indicators for the service quality standards;
 - Sets the obligation of the company to submit the information to the Commission regarding quality of services provided to the customers;
 - Methodology for collecting and analyzing the data provided through such information;
 - In case of non-compliance with the target indicators compensation and incentivizing/sanctioning mechanisms.

The Commission and its staff were actively involved in the process of discussing new pieces of legislation pursuant to the Protocol of Accession of Georgia to the Energy Community Treaty. At the first stage drafting of the Laws of Electricity and Natural Gas, Renewable Energies and Energy Efficiency shall take place and then later the respective secondary legislation shall be prepared.

1.1.2 Current Market Structure and its Participants

The structure of the electricity market of Georgia has remained unchanged in 2018. The structure of the electricity market, reflecting amendments made to Georgian legislation in previous year is provided on Figure 1.1.

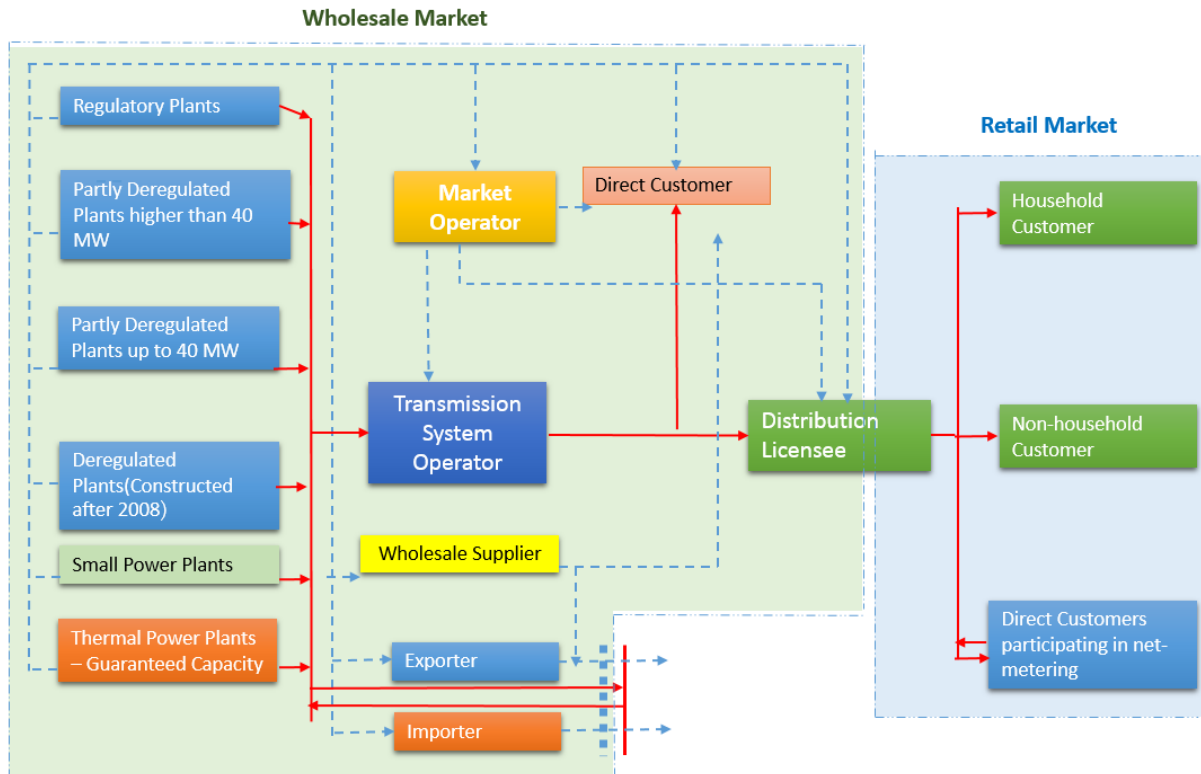


Figure 1.1. Current Structure of the Electricity Market

Electricity trade at wholesale level is mainly carried out on the basis of the direct contracts. Electricity sale takes place through generators, importers, whereas the electricity is purchased by the distribution licensees (supply side), direct customers, exporters, electricity generators (in cases of plant expenses) and the dispatch licensee (for the purpose of ensuring electricity (capacity) transit with the view to cover losses related to the purchase of the electricity). For the purpose of electricity trade at the wholesale market registration with the Electricity System Commercial Operator as a qualified enterprise is necessary.

For the regulatory purposes electricity generators are classified as:

- the **Regulatory power plants** to which the Commission sets fixed tariffs;
- Partly deregulated power plants with the capacity higher than 40 MW** for which the Commission sets marginal (upper margin) tariffs;
- Partly deregulated power plants with the capacity lower than 40 MW** for which the Commission doesn't set tariffs but they are subject to the licensing rules and conditions;
- Deregulated power plants** constructed after August 1, 2008 and act on the market without any tariffs set by the Commission;
- Guaranteed capacity sources (Thermal Power Plants)** for which the Commission sets guaranteed capacity fee and marginal tariffs (upper margin) of the electricity generation.

For the power plants with installed capacity higher than 13 MW, the Commission issues electricity generation license, whereas power plants up to 13 MW (**small power plants**) are do not require generation license.

When it comes to guaranteed capacity sources, they are used for the purpose of ensuring sustainable, secure and reliable functioning of the electricity system of the country. The list of the guaranteed capacity sources is defined by the Government of Georgia according to their guaranteed capacity and period of providing system with the guaranteed capacity.

During reporting year term of the **electricity wholesale supplier** has been introduced to the market and the status of the qualified enterprise was awarded to it. It has the function to purchase the electricity from the generation licensee, small power plant, import and supply the electricity to the direct customer and the exporter;

The electricity **import and export** activities are deregulated and do not require licensing. The price of the electricity export activities is free (without tariffs), whereas the price for the electricity import is set according to the marginal tariff formula set by the Commission.

For the purpose of encouraging electricity market opening process the regarding the direct customer has been specified. Based on that the **direct consumer** of the electricity shall be the person who gets the electricity (capacity) for own consumption from the network of the generation or transmission licensee, whose average total monthly consumption from supply points at that network(s) is no less than 15 million kw/h based on the data of the calendar year. Such customer shall register to participate at the wholesale trade as the direct electricity customer. Any other customer who complies with the requirements of the “Electricity (Capacity) Market Rules” and has voluntarily registered as the participant of wholesale trade.

In terms of purchase and selling electricity, the **Market Operator** is entitled to purchase and/or sell electricity through direct contracts or standard terms and conditions of the balance electricity direct contracts, for the purpose of meeting (balancing) qualified enterprises’ demand. At the same time ESCO organizes guaranteed capacity trading, registers companies as participants to the wholesale trade, makes amendments to the registration data and revokes registrations. The market operator possesses and exploits the Automated System of Commercial Metering (ASCM) that encompasses unified base and gets metering data from Automated System of Electricity and Capacity Control and Metering (ASECCM) automatically. It is intended for receiving, checking, collecting, grouping and summing up data for the wholesale electricity trade.

Network and system services are carried out by the **Transmission System Operator (TSO)** and the Transmission and Distribution licensees. The TSO (the Dispatch Licensee) has signed contracts with the Transmission Licensees on conveying rights of operating and developing transmission network to it. The TSO manages system mainly through Supervisory Control and Data Acquisition System (SCADA) and at the same time uses upper level Automated System of Electricity and Capacity Control and Metering (upper level ASECCM).

The **Distribution licensees** carry out network services, including wheeling, through networks under their ownership and/or under the third person’s ownership. The wheeling costs are reimbursed to the distribution licensees on the basis of the “Distribution and Wheeling Tariffs” set by the Commission, whereas in cases when the networks under the third party ownership, the distribution licensee reimburses to them in an amount calculated in accordance with the “Rules for calculating electricity, natural gas and water supply wheeling fees”.

Electricity is sold by the distribution licensees at the electricity retail market for household tariffs set by the Commission. Together with the supply activities they provide network and system services to the retail customers. According to the current legislation sale of the electricity to the retail customers can be carried out by the small power plants as well, though their participation at the retail market is quite low as far as the monopoly of the distribution companies still exist and creates barrier for the customers to trade at the retail market.

Retail customers are categorized as **household** and **non-household customers** at the market. Since 2016 a type of retail customer possessing renewable energy micro-generating power plants (up to 100 MW) has been added to those categories.

1.1.3 Main Characteristics of the Market

Main characteristics of Georgian electricity sector (supply and consumption indicators) in 2018 are provided on Figure 1.2. There are certain important aspects to be emphasized in the electricity balance during the reporting year:

- Generation of wind power plant (bus bar delivery) has reached 84.202 mln.kWh;
- Transit of 13.433 mln. kWh has been carried out;
- During 2018 amount of the electricity imports has been insignificantly changed (by >1%) in comparison to the same indicator of the previous year; It is notable that amount of import in 2017 has tripled in comparison to 2016;
- The amount of the electricity in 2018 has reached 19,217 mln.kWh and it has increased by 4% in comparison to 2017. That indicator is 15.04% of the total consumption, whereas the electricity supplied to the customer – 18.03%. Consumption of Abkhazia is satisfied by the electricity generated by Engury HPP and Vardnili HPP that means that those resources are diminishing for the rest of Georgia.

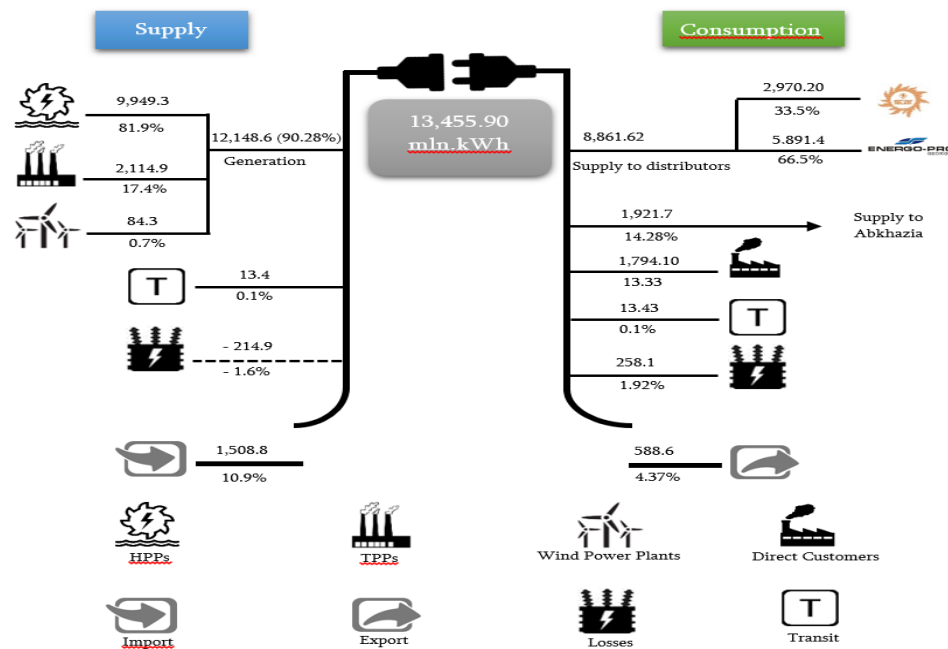


Figure 1.2. Electricity Bal

¹ Amounts provided on Figure are in mln.kw.h, whereas electricity consumption by direct consumers also envisages own consumption of the power plants in standby mode.

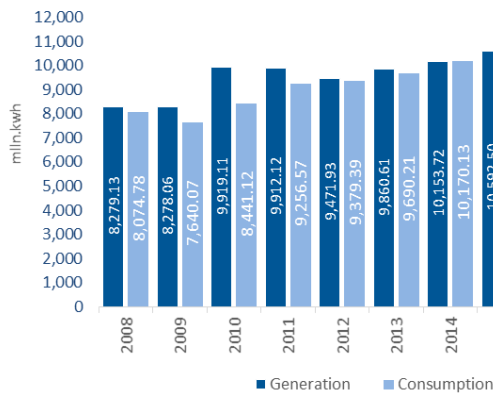


Figure 1.3. Electricity Generation (bus bar delivery) and Consumption

Generation of the electricity (delivery on bus bar) has been decreased by 5.5% in comparison to previous year, whereas in comparison to 2016 it has increased by 5%. Increase of generation in comparison to previous year has been caused by stopping Enguri HPP for 2 weeks in 2017 and by less water flow, also switching 2 seasonal power plants (total installed capacity 48.86 MW) and 7 small power plants (total installed capacity with 18.38 MW) into the system. Based on the data of 2009-2018 annual electricity generation in Georgia increases by 3.9% 2009-2018 that is caused by the electricity generated by the power plants put into operation during recent years.

Together with the growth of the electricity generation significant growth of consumption has been identified. In 2018 the electricity consumption has increased by 7.6% in comparison to 2017 and by 15.9% in comparison to 2016. Electricity consumption in Georgia was increasing by 4.8% annually in average during 2009-2018. (see Figure 1.3).

In the electricity generation structure increase of the electricity shares generated (delivered on a bus bar) by thermal and hydro power plants is more or less stable. Electricity generated by the thermal power plants in 2017-2018 has constituted 16.9% of the total generated electricity. The share of the electricity generated by HPPs in the total generation has been 83%, whereas in 2017 it has been 82.4%. The share of the electricity generated by the wind power plant being put into the operation by the end of 2016 has been 0.7% (see Figure 1.6). Notably, two medium capacity Hydro Power Plants – Kirnati HPP (installed capacity 27.47 MW) and Oldenergy HPP (with 21.39 MW installed capacity) and 7 small power plant – Shilda HPP (installed capacity – 1.2MW), Kheori HPP (installed capacity – 1.3. MW), Kasleti 2 HPP (installed capacity 9 MW), Bodorna HPP (installed capacity 2.5. MW), Skurdidi HPP (installed capacity 1.33 MW), Jinouli HPP (installed capacity – 1.1 MW) and Aragvi 2 HPP (installed capacity – 1.95 MW) have been put into operation during reporting year. Shares of the electricity generated (delivered on a bus bar) by HPPs according to the regulatory regimes is provided on Figure 1.4.

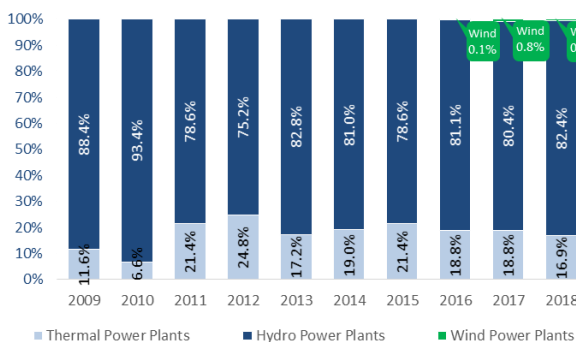


Figure 1.4. Structure of the Electricity Delivered by Power Plants on a Bus bar

In 2018 the share of the electricity generated by regulatory power plants in the total generation of HPPs has been 48%, the share of partly deregulated HPPs has been 29.4%, whereas the share of deregulated HPPs has been 22.6% out of which 69.5% is the share of the electricity generated (delivered on a bus bar) by power plants higher than 13 MW installed capacity, whereas the share of small power plants has been 30.5% (see Figure 1.5).

In 2018 the electricity distribution companies are still represented by important share (70.5%) in the electricity supplied to the customers. The share of the direct customers has been 14.3%, whereas the share of the electricity supplied to Abkhazia has been 15.3%. The electricity consumed by the electricity distribution companies has been increased by 5.2%

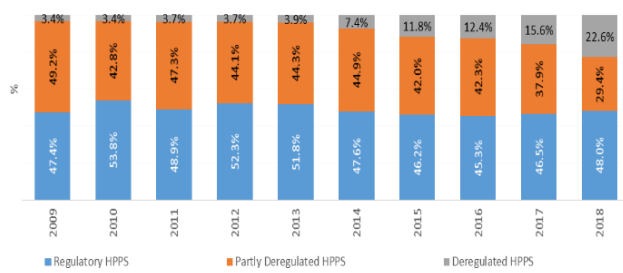


Figure 1.5. Structure of the Electricity Generation from HPPs

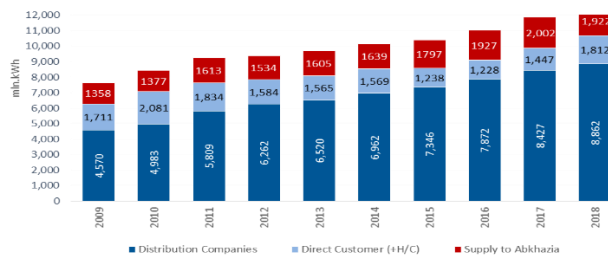


Figure 1.6. Structure of the Internal Consumption of the Electricity

In 2018 the electricity import exceeded exports by 2.6 times (see Figure 1.7). In 2018 the electricity import has been 1,509 mln. kWh that slightly(>1%) exceeds the same indicators of the previous year, whereas it is triple as much as the indicators of 2016. With regards to exports, 589 mln. kWh electricity has been exported from Georgia that is 14.2% less than indicators of the previous year.

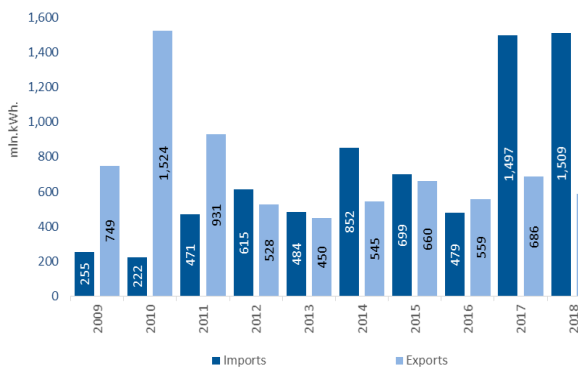


Figure 1.7. Electricity Import and Export

in comparison to the previous year and by - 12.6% in comparison to 2016. The electricity consumed by the direct customers has increased by 25% in comparison to the previous year and by 48% in comparison to 2016. Amount of the electricity supplied to Abkhazia has increased by 4% in comparison to previous year and decreased by 0.3% in comparison to 2016 (see Figure 1.6).

The electricity import and export according to countries is provided on Figure 1.8 and 1.9. 62% of the electricity import has been carried out from Azerbaijan, 14% - from Russia and 3% - from Turkey and 1% - from Armenia. In 2018 the important part (66%) of the export has been carried out to Turkey, 16% - to Russia, 14% - to Armenia and 4% - to Azerbaijan. Notably, significant share of import has been carried out from Russia during recent years (77%-in 2016 and 73% -in 2015), whereas from Azerbaijan it has been about 17-22% of the total import. With regards to the electricity export during reporting year and recent years, most of it has been carried out to Turkey.

The main features of the energy security in the electricity sector is uninterrupted supply. It can be ensured through meeting electricity demand by maximum utilization of own resources. This will enable substitution of import in a short-term perspective and thermal generation in a long-term

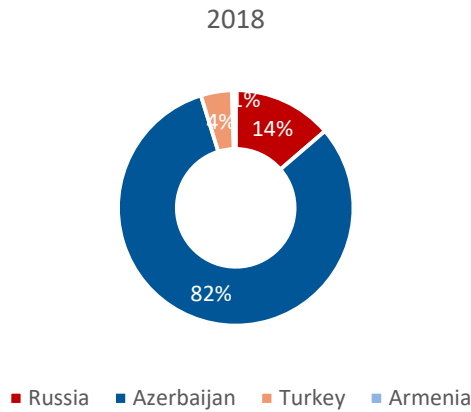


Figure 1.8. Electricity Imports According to Countries

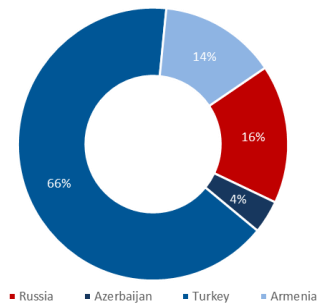


Figure 1.9. Electricity Export According to Countries

The Figure 1.12 reflects that electricity the supply and consumption in Georgia is seasonal. The electricity consumption in winter periods is higher than in summer periods, whereas electricity supply is opposite to seasonality. Respectively, in terms of consuming electricity the peak demand in Georgia is in winter. Although, the situation provided on Figure 1.11² shall presumably change and the peak demand in Georgia will be shifted to summer period. As it is shown on the Figure 1.11 the situation will presumably change by 2024 and Georgia will become summer peak country. Taking the abovementioned into consideration the reduction of the electricity import share will be possible in the nearest future based on the fact that electricity peak demand will change

perspective. The dynamics of the electricity generation and consumption per month is provided on Figure 1.10. As it can be observed from the Figure, hydro and thermal generation capacities are not enough to meet the demand in autumn and winter periods. Respectively, electricity import becomes necessary for the purpose of satisfying the demand. On the other hand, abundant water resources in second half of spring period and summer makes it possible to meet the electricity demand and export the rest of the electricity.

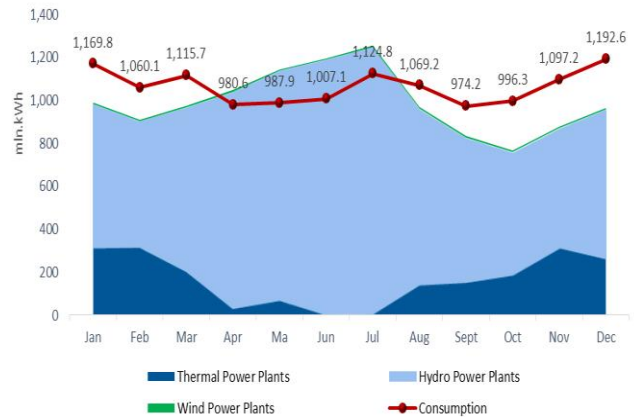


Figure 1.10. Electricity Generation and Consumption According to Months

² For forecasting consumption of Georgia in summer and winter periods Compound Annual Growth Rate – CAGR is applied, that is 3.3% in winter and 4.7% in summer on the basis of the data of 2006-2018. For these purposes summer period is from April to September and winter period from October to March.

to the summer period when meeting its demand will be possible via utilization of the local resources. On the other hand, launching new generation units into country's energy system will make it possible to reduce the share of electricity imported during winter periods for the purpose of meeting demand.

On the basis of analyzing results of the electricity supply and consumption balance in 2018 one can state that important attention shall be paid to the construction of new generation units through utilizing local energy resources. Respectively, hydro carbon resources and renewable resources shall be utilized together with hydro resources to a maximum extent, including wind and solar energy resources.

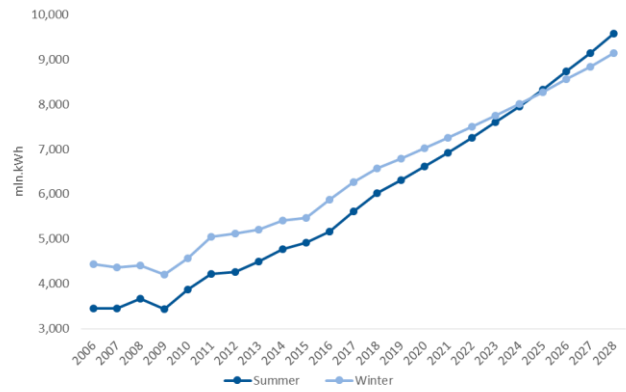


Figure 1.11. Consumption during the Summer and Winter Periods

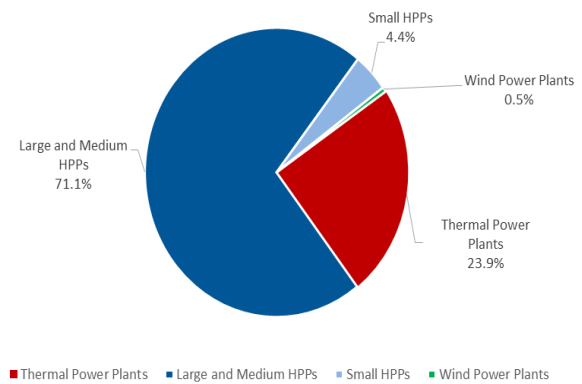


Figure 1.12 Structure of the Generation Capacities

Notably, total generation capacity of Georgia has been increased by 1.6% in comparison to 2017 and has reached 4,179.3 MW (installed capacity of small power plants has increased by 1.3% in comparison to the previous year, whereas, installed capacity of large and medium HPPs – by 1.6%). The generation capacities according to power plant types are provided on Figure 1.12.

1.1.3.1 Retail Market

The Electricity retail market of Georgia is highly concentrated (HHI – 5,544.5), where Energo – Pro Georgia JSC owns the largest (66.5%) market share.

Herfindahl-Hirschman Index (HHI) is applied for assessing a competition level at the specific market that is calculated by summing the squares of market shares (5%) of the participants. HHI index may range from 0 to 10,000, where 0 denotes low concentration of the market (absolute competition) and 10 000 – absolute monopoly. Based on the definition provided by the European Commission, if HHI exceeds 1,000 the market is concentrated, whereas if the index value exceeds 2,000 the market is highly concentrated.

The Figure 1.13 provides an information on the amounts of electricity consumed by the electricity distribution licensees according to months in 2018. Figure clearly reflects that the highest consumption of

Telasi JSC and Energo-Pro Georgia JSC has been observed in December – January and July–August. Hereby, consumption of Energo-Pro Georgia JSC has significantly increased as a result of adding Kakheti region to its service area. Such trend is a result of the electricity consumption seasonality in Georgia where increase of demand of the household customers on electricity in winter and summer periods plays an important role.

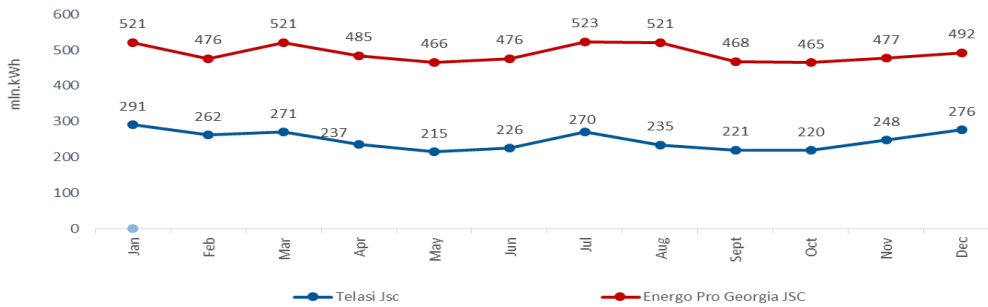


Figure 1.13. Consumption of the Electricity Distribution Companies

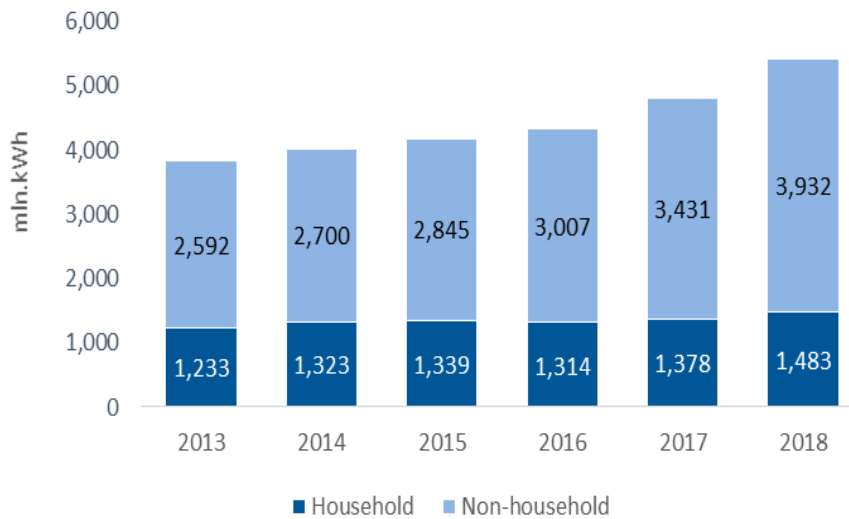


Figure 1.14. Consumption of Energo-Pro Georgia JSC according to the consumer categories

The consumption of the household customers in the area of Energo-Pro Georgia JSC has reached 27.4% of the total consumption, whereas non-household consumption has been – 72.6%. The consumption of non-household customers in the distribution area of Energo-Pro Georgia JSC has increased by 14.6% in comparison to 2017 and by – 30.8% in comparison to 2016. This has been caused by connecting new commercial units to the network. The amount of the electricity consumed by the household customers has increased by 7.6% in comparison to the previous year and by – 12.9% in comparison to 2016 (see. Figure 1.14).

When speaking about the amount of the electricity distributed by Energo-Pro Georgia JSC to retail customers according to voltage levels, it is worth mentioning that almost half (45.8%) of total distributed electricity has been consumed by customers connected at 0.4 kV network, 32.1% - by customers connected at 110-35kV network, whereas 22.1% - by customers connected at 6-10 kV network (see Figure 1.15). This

has been caused by new connections to the network of Energo-Pro Georgia JSC, specifically, 163.6MW of new connections have been arranged, out of which 144 MW (88%) has been connected to 0.4 kV network, 19.6 MW (12%) – to 6-10kV network, whereas connection to 110-35kV network has not been carried out.

In 2018 64.5% has been non-household and 35.5% has been household consumption of the total consumption of Telasi JSC. Amount of the electricity consumed by non-household customers has increased by 2.3% in comparison to the previous year and by – 10.1% in comparison to 2016. Household consumption of Telasi JSC has been increased by 0.4% in comparison to the previous year and by 2.4% - in comparison to 2015 (see Figure 1.16).

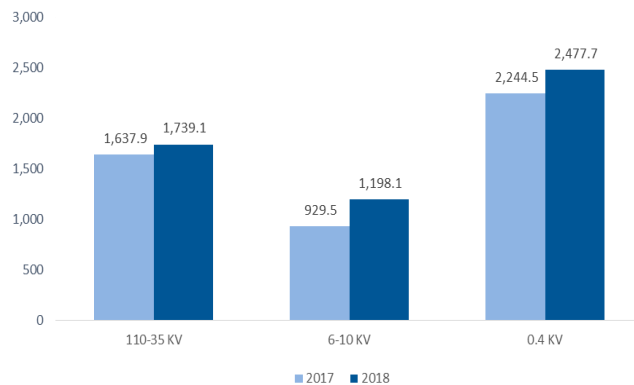


Figure 1.15. Consumption of Energo-Pro Georgia JSC according to Voltage Levels

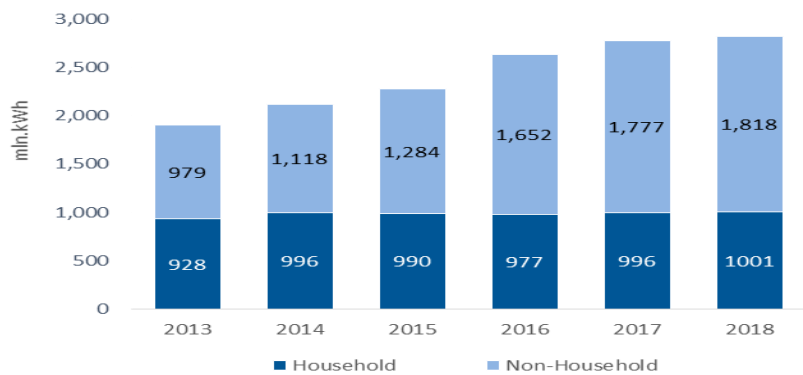


Figure 1.16. Telasi JSC consumption according to the Consumer Categories

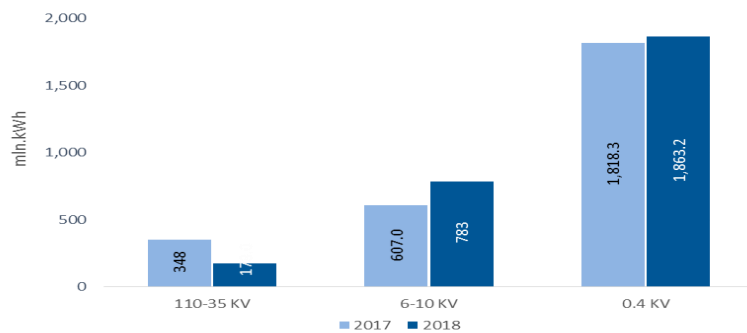


Figure 1.17. Consumption of Telasi JSC according to the Voltage Categories

In addition, in the network of Telasi JSC the electricity distributed to the customers connected to 0.4KV network has significant share (66.1%) in total amount of distributed electricity. The share of customers connected to 6-10 KV network has been 27.8%, whereas share of customers connected to 110-

35 kV network has been 6.14%. Main determinants of totally distributed electricity according to voltage levels by Telasi JSC are new connections arranged in 2018 (see Figure 1.17).

1.1.3.2 Wholesale Market

91 generators were registered throughout the reporting period, including 5 thermal³, 2 regulatory⁴, 9 partly deregulated⁵, 14 deregulated⁶ (hydro) and 61 small (deregulated) power plants⁷.

The market shares for three largest electricity generators have been allocated in a following manner: 33.43% - Enguri HPP LLC; 9.76% - Gardabani Thermal Power Plant LLC and 9.96% - Vartsikhe HPP LLC. Herfindahl-Hirschman Index⁸ for the generation segment has been $HHI_{2016} = 1,596$. Respectively, generation segment can be assessed as a concentrated market. The same indicators of previous years are provided on table 1.1.

Name/Year	2014	2015	2016	2017	2018
Enguri HPP LLC	32.5%	31.04%	31%	31.5%	33.4%
Mtkvari Energy LLC	11.3%	10.89%			
Vartsikhe HPP	8.6%	7.21 %	8.1%	9.9%	6.96%
Gardabani HPP LLC			9.8%	7.3%	9.76 %
HHI	1,260	1,133.6	1,222.8	1,512.2	1,596

Table 1.1. Market Shares of Largest Generators and HHI

The electricity trade at the wholesale market is carried out on the basis of direct contracts and at the balance market operated by the Electricity System Commercial Operator (ESCO) in accordance with the standard terms and conditions of balance electricity purchase and sale agreements approved by the Commission.

In 2018 electricity sold through direct contracts has been 10,798.22 mln.kWh, whereas the electricity sold at the balance market has been 2,644.29 mln.kWh. Respectively, share of electricity trade through direct contracts has been 80.3% of the total electricity delivered on a bus bar, whereas the share of balance electricity has been 19.7%. The abovementioned characteristics are provided on Figure 1.18 according to months.

³ Thermal power plants: Gardabani 9th energy unit, gas turbine, 3rd and 4th units of Tbilisresi, Gardabani TPP, Tkibuli TPP.

⁴ Regulatory power plants: Enguri HPP, Vardnili HPP

⁵ Partly deregulated power plants: Khrami1, Khrami 2, Shaori HPP, Devruli, Vartsikhe, Gumati, Tioni and Lajanuri HPP.

⁶ Deregulated (up to 13 MW installed capacity) power plants having electricity generation license : Ortachala HPP, Satskhene Hpp, Zahesi, Chitakhevi HPP, Khadori Hpp, Atshesi, Larsi HPP, Paravani HPP, Dariali HPP, Khelvachauri HPP 1, Shuakhevi HPP, Kirnati Hpp and Old Energy HPP .

⁷ Small Power Plants (less than 13 MW installed capacity) without electricity generation license: 61 HPPs in total.

⁸ While calculating HHI index for 2018 possession of different power plants by the companies is considered

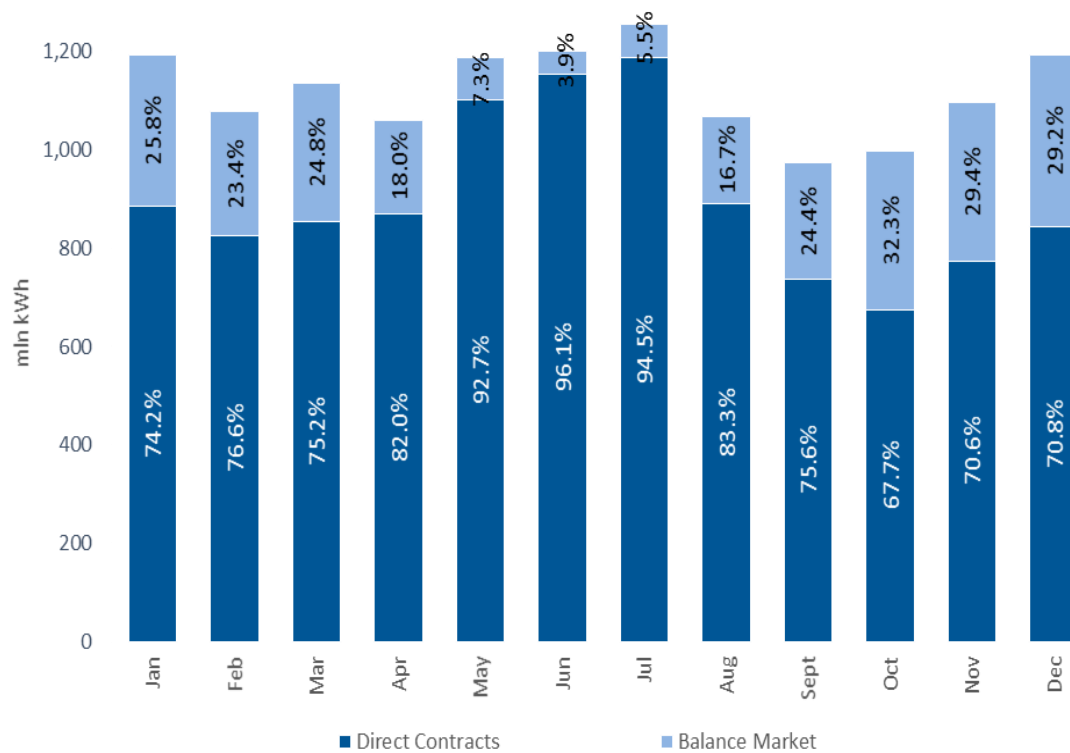


Figure 1.18. Electricity Trade at the Wholesale Market and on the basis of Direct Contracts

The Figure 1.20 clearly shows that share of balance electricity in totally purchased and supplied electricity in winter period is significantly higher than in summer periods (May-July), where the balance of the electricity supply and consumption is carried out through direct contracts. The structure of the balance electricity suppliers at the wholesale market per each month is provided on Figure 1.19.

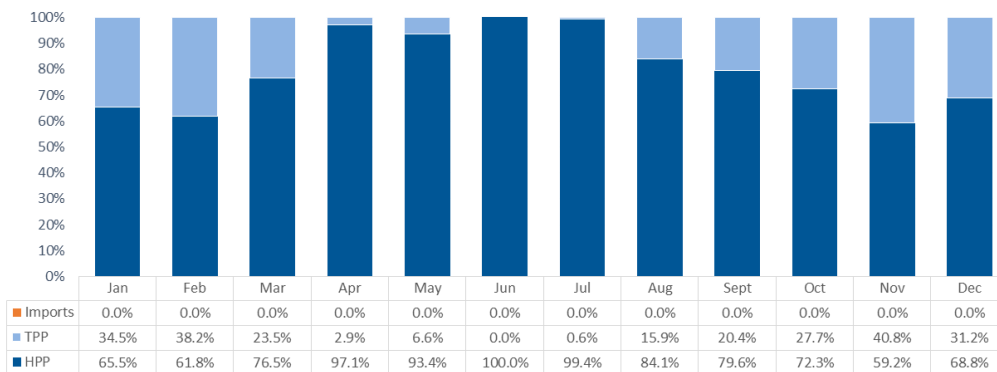


Figure 1.19. Structure of the Electricity Suppliers on the basis of Direct Contracts

Structure of the Electricity Purchasers on the Basis of Direct Contracts per each month is provided on Figure 1.20.

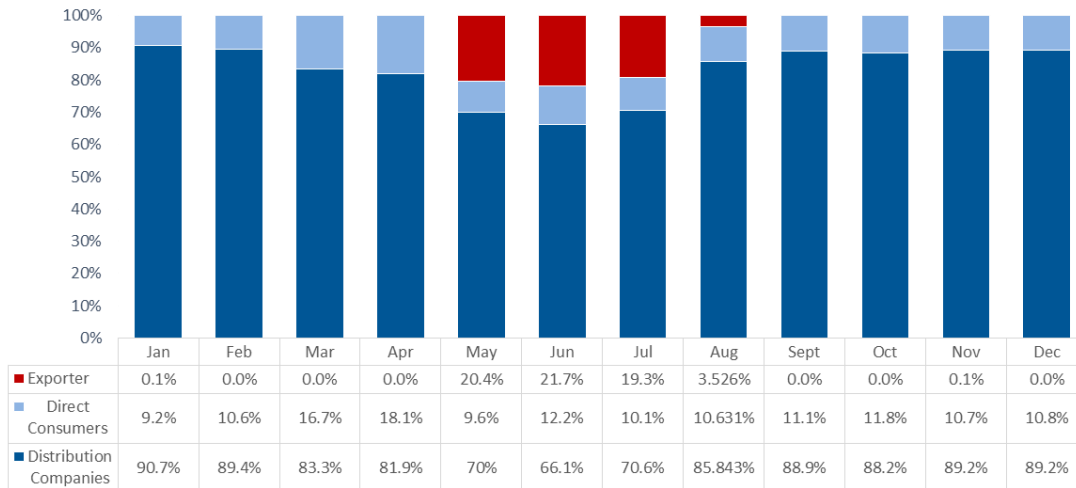


Figure 1.20. Structure of the Electricity Purchasers on the basis of Direct Contracts

Structure of the Balance Electricity Purchased by the Market Operator according per each month is provided on Figure 1.21.

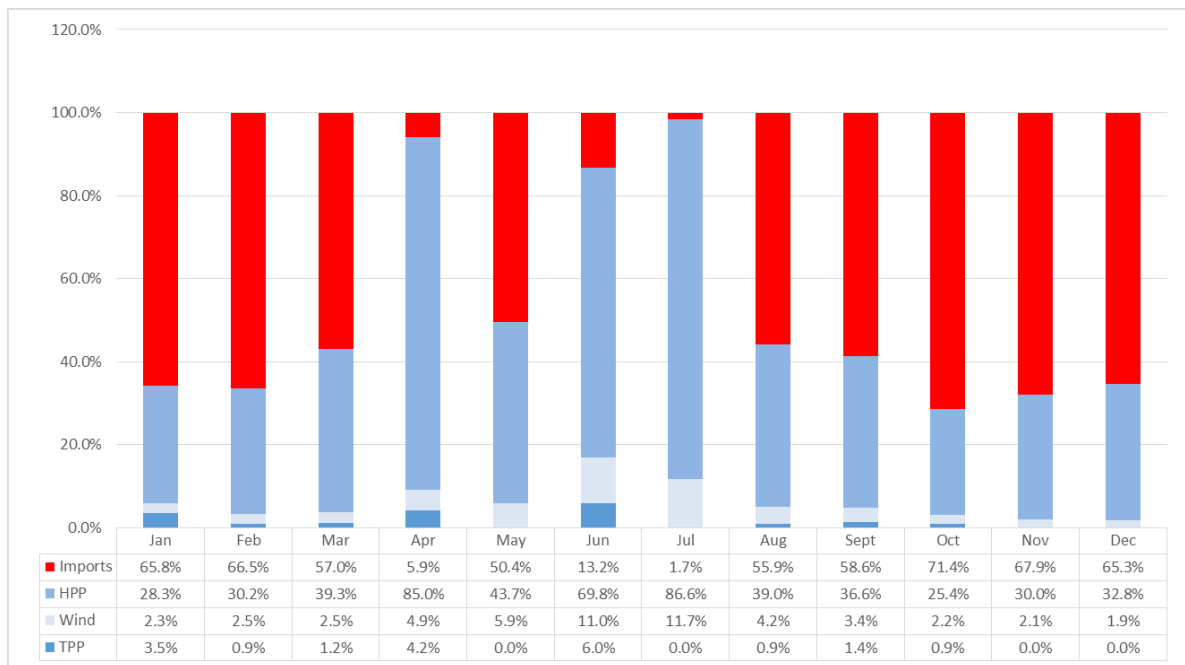


Figure 1.21. Structure of the Balance Electricity Purchased by the Market Operator

The imported electricity has significant share in the balance electricity purchased by the market operator in 2018. The electricity generated by HPPs is purchased by the market operator for balance market throughout the year. During the months of May and June, electricity generated by HPPs almost fully satisfies the balance market (see Figure 1.22).

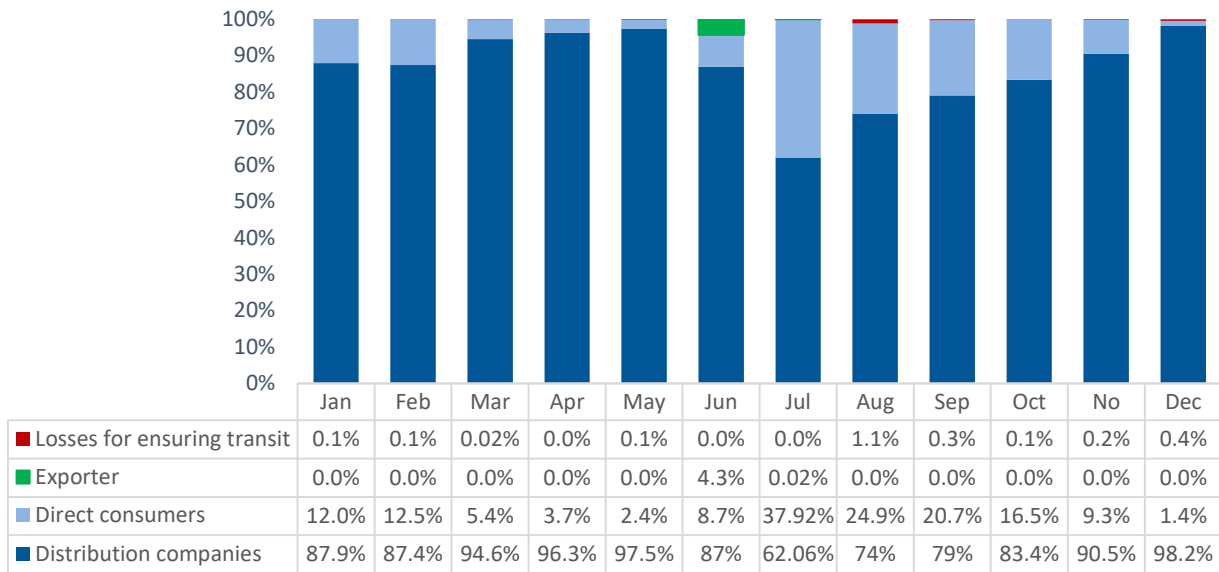


Figure 1.22. The structure of the balance electricity sold by the market operator

Mainly, it is electricity distribution companies and direct customers who purchase the balance electricity from the market operator.

The price of the balance electricity to be sold by the market operator is set on a monthly basis, according to the principle of weighted average of electricity price purchased from generators and importers of different categories. During the reporting year price of the balance electricity increased by 1.57% in average compared with the previous year (see Figure 1.23). In reporting year the price of the balance electricity sold by deregulated power plants to the market operator has increased by 2.1% in average in comparison to 2017 (see Figure 1.24).

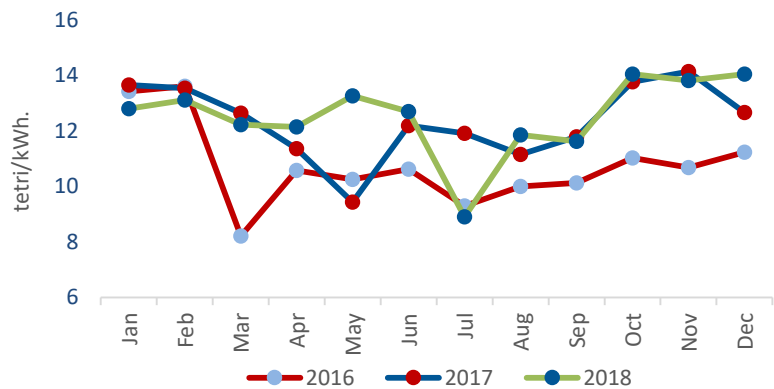


Figure 1.23. The weighted average price of the balance electricity to be sold by the market operator

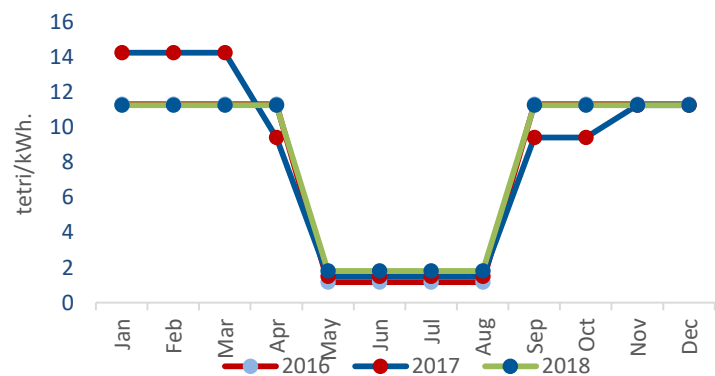


Figure 1.24. The price of the electricity sold by the deregulated power plants at the balancing market

1.1.3.3 Cross-Border Trading

The electricity cross-border trading is regulated on the basis of the law and market rules. During reporting year, 18 importers and 32 exporters were registered at the Georgian electricity market, although only 1 importer and 9 exporters have been active.

Capacity of the cross-border electricity transmission lines of Georgian electricity system with neighboring countries provides opportunity to export surplus electricity. By the end of 2018, total net cross-border capacity of Georgia has constituted 2,550 MW (see Figure 1.25). Hereby, it is planned to increase cross-border capacity of Georgia up to 4,500 MW by 2020 through implementation of new infrastructure projects that is twice as much as the same data in the reporting period.

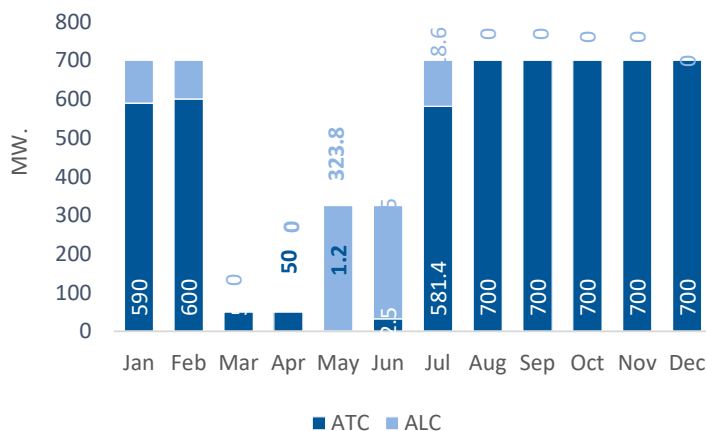
The electricity import can be carried out within the limits of the respective months envisaged by the electricity (capacity) annual balance, whereas in the emergencies import can be carried out without envisaging it in the electricity balance. If the electricity to be imported in a normal operational mode exceeds the capacity of the cross-border electricity transmission line and/or the amount defined in the electricity (capacity), balance the prevalence is given to the import of the electricity having the lowest price.



Figure 1.25. Cross-border capacities of Georgia for 2017 and 2020 (MW)

Similarly to the import the export can also be carried out within the limits of the respective months envisaged by the electricity (capacity) annual balance, whereas in emergency situations electricity export can be carried out without envisaging it in the electricity (capacity) balance.

The electricity export is carried out in accordance with the provisions of the Market Rules and Special Auction Rules for the Allocation/Reallocation of New Cross-Border Transit (Interconnection) Line Transmission Capacity and Internal Limiting Resource. The main instrument for defining exporters and amount of the electricity to be exported is determination of export- and transit- allowed capacities and distribution of new intersystem transit (flow) line capacity.



In accordance with established procedures Georgian State Electrosystem JSC and Turkish party agree on the Akhaltsikhe-Borchkha transmission line capacity volumes for each month of the upcoming year before August 1 of each year. Respectively, capacity reallocation of new transmission line with and without auction in

Figure 1.26. Capacities distributed and to be distributed on Akhaltsikhe – Borchkha electricity transmission line¹⁰

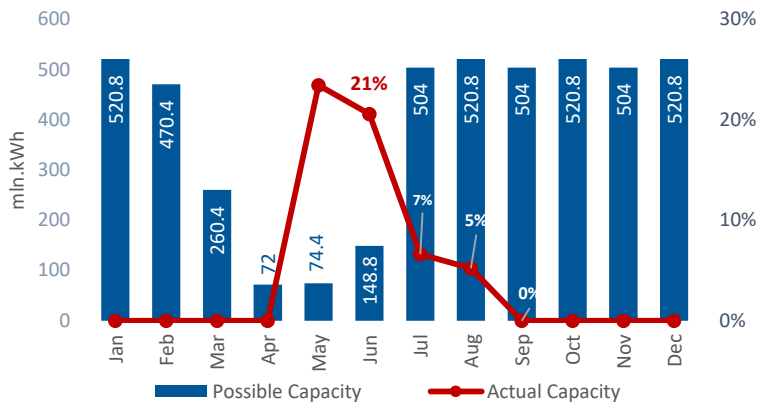


Figure 1.27. The dynamic of Akhaltsikhe-Borchkha transmission line usage

2018 was arranged in a following manner (see Figure 1.26).

It is notable that despite the allocated capacity, Akhaltsikhe-Borchkha transmission line is not loaded to the maximum extent and export of electricity is not carried out through that line. Capacity of the above-mentioned electricity transmission line throughout the year has been 700 MW per month except of May and June. Despite that significant difference exists between actual and possible capacities (see Figure 1.27).

1.2. Licensing and Technical Regulation

1.2.1 Licensing Applications and Amendments to the License Registry

According to the data of December 31, 2018 27 licensees have been operating at the Georgian electricity sector (see Annex N1), including:

- Generation – 20;
- Distribution – 2;
- Transmission – 4;
- Disptach – 1.

During reporting period the Commission prepared 6 decisions regarding licensing, specifically:

- Based on the Commission’s Decision N79/2 of October 3, 2018 the generation license (Serie 11, №091) has been issued to Old Energy JSC with 21.39 MW installed capacity;
- Based on the Commission’s Decision №89/1 of November 2, 2018 amendments have been made to the electricity generation license of the Adjara Energy – 2007 LLC issued on the basis of the Commission’s decision №20/1 of March 20, 2017 and Kirnati HPP and the technical data have been added to the Annex №1.

¹⁰ ATC (Available Transmission Capacity) on Figure 1.27 is the available capacity of the transmission network, whereas AAC (Already Allocated Capacity) – is already allocated volume. ATC is calculated in a following manner: $ATC = NTC - ALC$, where NTC (Net Transfer Capacity) is the net transfer capacity of the transmission network.

- Based on the Commission's Decision №101/1 of December 7, 2018 electricity generation license №077 (Serie 11) of Zahesi JSC has been revoked and the Commission's Decision №11/3 of July 9, 2009 has been repealed.
- Based on the Commission's Decision №101/2 of December 7, 2018 amendments have been made to the electricity generation license of the Energo-Pro Georgia JSC (Serie 11, № 088) issued on the basis of the Commission's decision №4/8 of January 20, 2017 and Zahesi HPP and the technical data have been added to the Annex №1.

1.2.2. Ensuring the Reliability of the Electricity Supply in the Distribution Network

The control of the reliable (uninterrupted) electricity supply is carried out in accordance with the Commission's Resolution №9 of December 28, 2018 on Approving Service Quality Rules (hereinafter – Service Quality Rules). The abovementioned rules set uniform requirements regarding issues such as registration of the information on the reliability of the electricity supply by the distribution licensee, submission of that information to the Commission and analysis, verification and monitoring of the submitted data by the Commission through electronic journal. For determining the reliability (uninterruption) of electricity supply the following indexes are envisaged by these Rules in accordance with the best international practise:

- System Average Interruption Duration Index per Customer – SAIDI minute/customer.
- System Average Interruption Frequency Index per customer – SAIFI interruption/customer.

It is notable that the requirements and approaches implied by the Commission's Resolution №9 of June 4, 2009 on Approving Instructions of Monitoring Reliability Indicators of the Electricity Supplied to the Customers by the Electricity Distribution Licensees have been improved by adopting these Service Quality Rules approved in 2018.

The Commission's Resolution №9 of December 28, 2018 implies financial incentives to motivate the companies to improve annual reliability index of electricity supply to customers. Moreover, in case of worsen of electricity supply reliability index, respective sanctions are imposed that are determined by the above-mentioned Resolution and the Commission's Resolution №23 of September 18, 2008 on Approving Rules of Licensing and Activity Control in the Electricity, Natural Gas and Water Supply Sector.

Based on the Decision №133 of the Chair of the Commission Electricity Supply Reliability Monitoring Working Group (hereinafter – Working Group) has been established which is responsible for supervising the dynamic of electricity supply interruptions, analyzing systemically the reasons beyond them and developing the recommendations for eliminating the revealed defects based on this analysis.

Working group has analyzed the information (data received from dispatch licensee) submitted by Telasi JSC and this information has been compared to the information existed in the electronic journal. By comparison of these data, it has been observed that SAIDI was 11 hours and 17 minutes that is significantly different from the data submitted by Telasi JSC (4 hours and 41 minutes). According to the data of electronic journal for 2018, SAIFI has been constituted 6.27 while the company indicated that it was 3.73.

As per the comparison of data of the previous year (see tables 1.2. and 1.3.), it has been observed that the data concerning reliability index of Telasi JSC in 2018 is worsen compared with the data of 2017 that requires further research, identification of reasons beyond it and planning of relevant actions.

SAIDI	2018	2017 *
Non-planned	4:51:33	4:35:19
Planned	6:26:06	4:46:44
Total	11:17:39	9:22:03

Table 1.2. SAIDI indicators of Telasi JSC according to the internal reasons

SAIFI	2018	2017 *
Non-planned	4.12	5.09
Planned	2.15	1.69
Total	6.27	6.78

Table 1.3. SAIFI indicators of Telasi JSC according to the internal reasons

* Information reflected in the electronic journals submitted by Telasi JSC 2017 has been used for comparison

Working group has studied the information (data received from dispatch licensee) submitted by Energo-Pro Georgia JSC and this information has been compared to the information existed in the electronic journal. By comparison of these data, it has been observed that SAIDI was 68 hours and 11 minutes that is significantly different from the data submitted by Energo-Pro Georgia JSC (61 hours and 19 minutes). According to the data of electronic journal for 2018, SAIFI has been constituted 31.88 while the company indicated that it was 31.48.

As per the comparison of data of the previous year (see tables 1.4. and 1.5.), it has been observed that the data concerning reliability index of Energo-Pro Georgia JSC in 2018 is worsen compared with the data of 2017 that requires further research, identification of reasons beyond it and planning of relevant actions.

SAIDI	2018	2017
Non-planned	32:38:46	29:40:17
Planned	35:32:36	28:59:18
Total	68:11:22	58:39:35

Table 1.4. SAIDI indicators of Energo-Pro Georgia JSC according to the internal reasons

SAIFI	2018	2017
Non-planned	20.00	22.70
Planned	11.87	13.03
Total	31.88	35.72

Table 1.5. SAIFI indicators of Energo-Pro Georgia JSC according to the internal reasons

Based on the above-mentioned, reliability working group continues working related to the electricity supply uninterrupted indexes of companies, further improvement and identification of reasons beyond it.

1.2.3. Losses in the Transmission and Distribution Networks

Regulation of electricity losses in transmission and distribution networks is one of the most

important functions of the Commission as in the process of tariff calculation, the significant part of revenue requested by the company comes to the cost of energy to be purchased for covering the losses caused by various objective, physical or technical reasons. Determination and regulation of losses is important measure for energy efficiency in terms of negative impact on environment and reduction of emission. Comparison of losses of network companies occurred during reporting year with the volume of losses of the previous year of the same network companies objectively shows the tendency of the effective performance of the companies and planning and development of networks.

Based on the Commission's Resolution №34, 2017 total normative loss of the electricity in the transmission network (in the network of the transmission licensees) has been set in an amount of 2.06% of totally received electricity. In addition, share of each licensee in the total normative losses has been provisionally defined, specifically: Georgian State Electrocystem JSC– 1.28%, SakRusEnergо JSC – 0.39% and Energo Trans LLC – 0.39%. The normative losses set in 2018 are valid from January 1, 2018 to January 1 of 2020 (tariff regulatory period of 2018-2020). It is worth mentioning that amount of normative losses before 2018 has been 4.41%.

Amount of the electricity losses in the electricity distribution networks has been defined for the distribution licensees under the abovementioned Decision for 2018-2020 tariff regulatory periods. Respectively, total normative loss of Energo-Pro Georgia JSC from January 1 to April 30, 2018 has been defined in an amount of 9% of the electricity received in its distribution network, while for the period from May 1, 2018 to December 31, 2018 and for 2019-2020 total normative loss has been defined in an amount of 9.9%. Normative losses of Telasi JSC (the Resolution №34 of 2017) for the period from January 1 to April 30, 2018 has been defined in an amount of 5.27% of the total electricity received in its distribution network, whereas for the period from May 1 to December 31, 2018 and also during 2019-2020 it has been defined in an amount of 5.88%. Definition of different normative losses for the distribution licensees for 2018 has been caused by the amendments made to the Law. According to those amendments customers connected to 35KV or higher voltage network will be obliged to enter the wholesale market from May 1, 2018. This will change indicators of the normative losses in respective distribution networks.

According to the amendments to the Law of Georgia on Electricity and Natural Gas dated with May 4, 2018, the customer, who receives electricity (capacity) for own needs from the generation, transmission licensee, small capacity power plant or a network belonging to another customer and who has consumed, from the points of supply located on this network(s) in total, based on the results of the first three months of 2018, the average of no less than 15 million kWh of electricity per month, as of May 1, 2018 shall be a direct customer of electricity”.

According to these amendments, among those customers connected to the high voltage network having 35 kV or more that were directly connected to the transmission lines, only two customers have become the participants of wholesale electricity market. Therefore, normative losses in the network of Energo-Pro Georgia JSC have been adjusted and from May 1, 2018 constituted 9.33% in its distribution network. As per the customers of Telasi JSC, only one person has become the participant of the wholesale electricity market from May 1, 2018 and considering this fact, normative losses in the network of Telasi JSC have constituted 5.847% in its distribution network from May 1, 2018.

In reporting year actual total losses in the electricity transmission and distribution network has been 6.48% in relation to the total amount of electricity actually received in the network (1.92% in the Transmission Network, 4.56% in the Distribution Network). Those indicators are by 8.09% less than the same indicators of 2017 (specifically, transmission losses have decreased by 2.5%, whereas for distribution it has increased by 1.2%).

1.3. Pricing and Tariff Regulation

1.3.1. Legal and Methodological Basis

1.3.1.1. Tariff Regulations

The legal basis for the Commission to calculate electricity tariffs for the regulated companies operating in the electricity sector (hereinafter the company) is the law and tariff methodologies developed and approved by the Commission with the normative administrative act pursuant to this law.

Based on the tariff methodologies electricity tariffs are calculated in accordance with the “incentive-based” and “cost-plus” (revenue cap regulation) principles known as the principles of international best practice. These principles promote the increase of efficiency and ensure the stability of the operation of company, remuneration of reasonable incurred costs and fair and reasonable rate of return.

The Commission sets tariffs in 180 days after submission of tariff application to the Commission. Based on the amendments made to the Law of Georgia on Electricity and Natural Gas dated with May 4, 2018, tariff setting methodology has been changed by the Commission’s Resolution №10 of July 2, 2018 and according to the paragraph 1 of Article 27 of this methodology, the tariff application shall be submitted to the Commission no later than July 4 of tariff calculation year.

1.3.2. Current Tariffs of the Sector

According to the tariff methodologies and regulations adopted by the Commission, the Commission sets tariffs for each companies (except for thermal power plants) for the regulatory period and these tariffs are valid for the next 3 years, while for thermal power plants tariffs are set every year for the next one year. In 2017 the Commission has set long-term tariffs for the generation, dispatch, transmission and distribution licensees for the regulatory period of 2018-2020, while for guaranteed power sources (thermal power plants) tariffs have been set for 2018. Respectively, new tariffs should have been set for thermal power plants and in the course of public administrative proceedings, based on the submitted tariff application and supporting necessary documents, the Commission has set guaranteed capacity fee and marginal tariffs (upper margin) of the electricity generation for 2019.

Therefore, based on the Resolutions №35, №36, №37 and №38 of December 27, 2018 guaranteed capacity fees and marginal tariffs of electricity generation have been set for G-Power LLC (gas turbine), Gardabani Thermal Power Plant LLC (combined cycled gas turbine), Georgian International Energy Corporation LLC (Unit 3 and 4 of Tbilisres) and Mtkvari Energy LLC (Unit 9 of Tbilisres). Information about the tariffs is presented in the Annex №8.

1.3.3. Analysis of Investment Project Implementation

According to the principles implied in the tariff methodologies adopted by the Commission’s Resolution №14 of July 30, 2014, carried out or planned investments should be reflected in the tariff set to the company. In this context the Commission analyzes and monitors the completed and ongoing investment projects.

In accordance with the tariff setting methodologies, during the tariff setting process the

Commission reflects planned investments of the tariff calculation year and tariff regulatory period in the regulatory asset base of the company in accordance with investment plans submitted by the licensees, which shall be agreed in advance before tariff setting or correcting. Company is obliged to justify the necessity of investments to be carried out and their results and benefits. In case if the company didn't reach to the target (including targets related to service standards) by carrying out the planned investments, the Commission is authorized to impose sanctions in accordance with the law. In case if the company improves the target (including targets related to service standards), incentivizing mechanisms can be used by the Commission.

Licensees are obliged to carry out detailed reporting regarding the actually fulfilled works regarding the investment projects agreed with the Commission, separately for each project. Besides, the companies are obliged to submit expert opinions on actually performed works in relation to the construction (installation) and rehabilitation investment projects indicated by the Commission. After the detailed review of submitted information and documents the Commission assesses the compliance of technical and economic indicators with the investment plans agreed in advance and if necessary, adjusts tariffs set for the licensee.

After the investments implemented by each licensee of the electricity sector, the indicators of reliability and security of generation units and electricity networks and relevant electricity quality have to be improved.

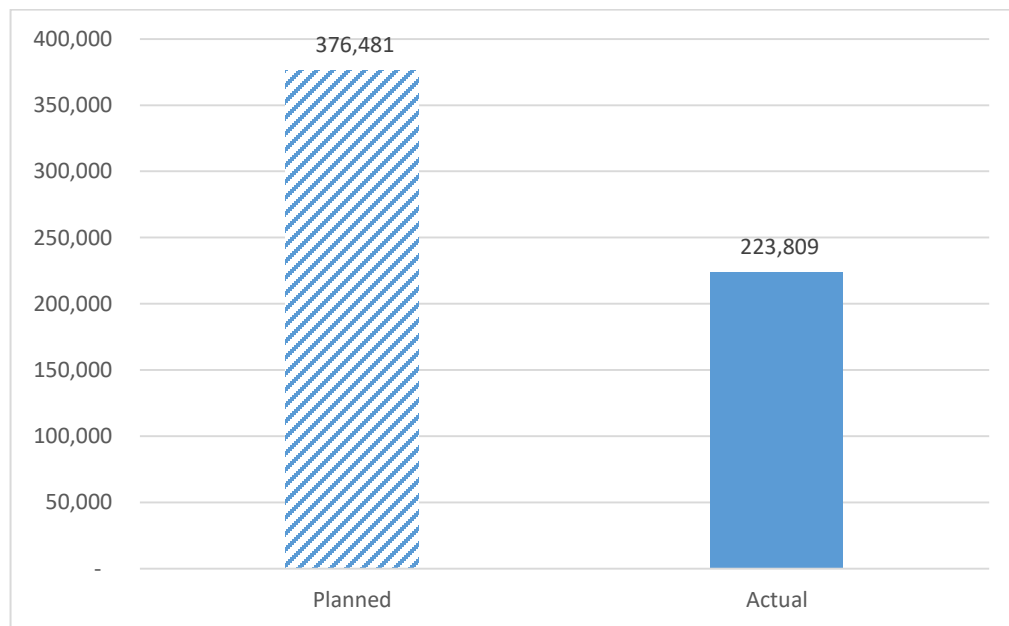


Figure 1.28. Planned and Actual Investments in 2018 (thousand GEL)

In 2018 the investments actually carried out in electricity sector by generation, transmission and distribution licensees subject to tariff regulation constituted 328,719,753 GEL in total. Information about the types of activity and financing sources is presented on the Figures below (see Figure 1.28 and 1.29).

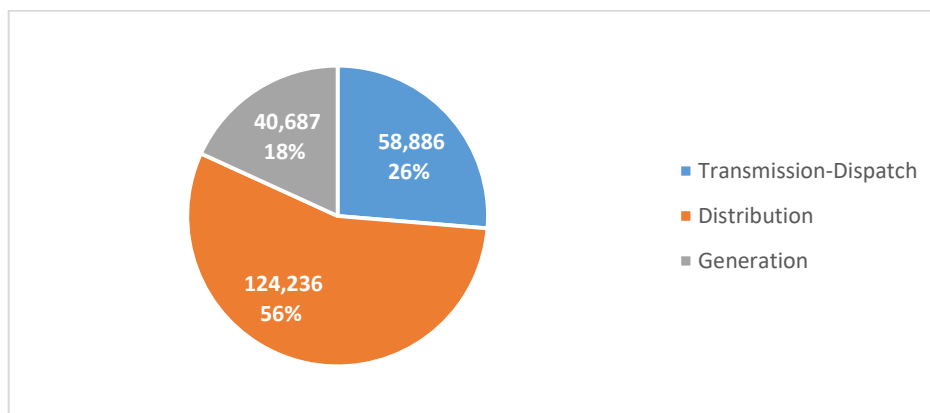


Figure 1.29. Carried out investments per activities (thousand GEL)

Investments to be carried out are financed by own sources, loans or by funds of third party.

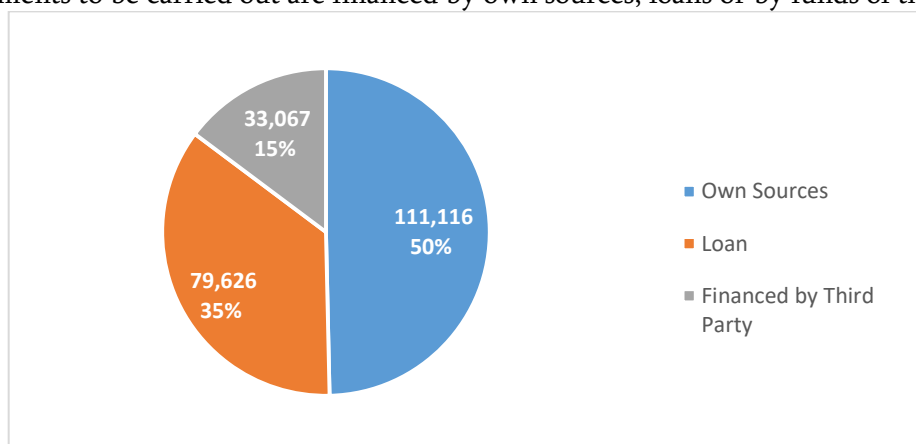


Figure 1.30. Financing sources of carried out investments (thousand GEL)

The goal of the electricity distribution companies is to improve efficiency and reliability of electricity supply in their licensed area as well as increasing of capacity for further development of electricity networks for which these companies carry out investments every year. In 2018 the investments actually carried out in case of Telasi JSC operating in Tbilisi have been constituted 43,114 thousand GEL (35%), while in case of Energo-Pro Georgia JSC operating in the rest regions of Georgia other than Tbilisi have been constituted 81,112 thousand GEL (65%).

1.3.4. Comparative Analysis of Tariffs

Current household tariffs in different countries are presented in the Table 1.3 and on Figure 1.31.

Country	Household Tariff (tetri/ kWh)
Azerbaijan	10.464
Ukraine	12.545

Russia	13.891
Georgia	18.554
Armenia	19.704
Serbia	21.571
North Macedonia	23.896
Bosnia and Herzegovina	26.436
Turkey	27.660
Bulgaria	29.954
Moldova	31.209
Montenegro	31.331
Lithuania	33.565
Hungary	34.360
Malta	39.317
Croatia	40.113
Romania	40.786
Estonia	41.245
Poland	43.142
Latvia	46.844
Iceland	47.119
Slovakia	47.915
Czech Republic	48.129
Finland	49.322
Slovenia	49.353
Luxemburg	51.128
Netherlands	52.198
Norway	53.575
France	53.667
United Kingdom	56.268
Greece	57.094
Cyprus	57.920
Sweden	58.654
Austria	60.154
Italy	63.244
Portugal	68.721
Ireland	72.484
Spain	72.913
Belgium	83.622
Germany	91.393
Denmark	95.646

Table 1.6. Household tariffs of different European countries (tetra/kWh) (without VAT)

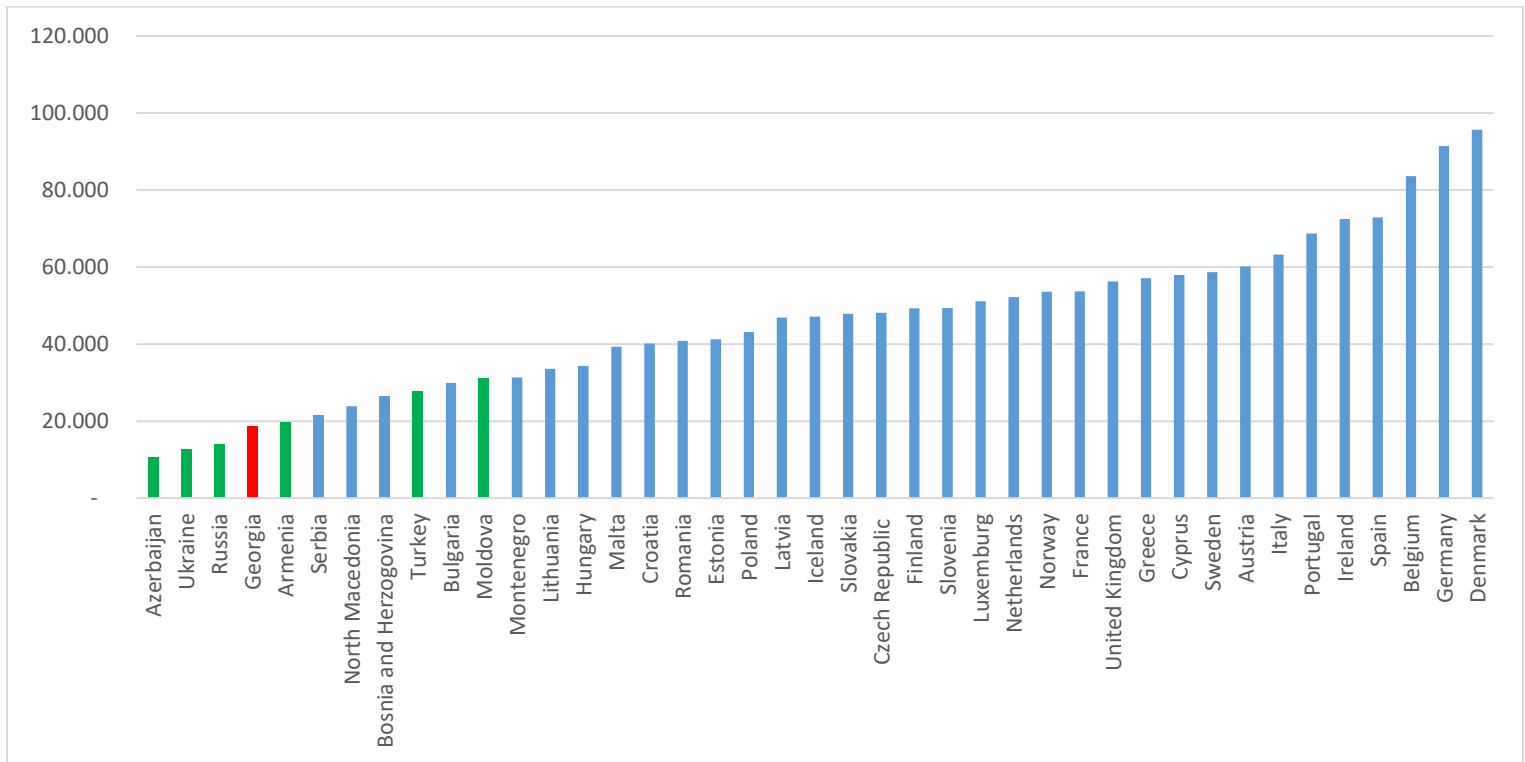


Figure 1.31. Household tariffs of different European countries (tetra/kWh) (without VAT)

1.4. Promotion of Renewable Energy and Energy Efficiency

For the purpose of efficient utilization of electricity resources of Georgia, increasing security of electricity and sustainability, also for fully satisfying electricity demand of the country one of main priorities for the development of the electricity sector is policy of water and other types of renewable energy utilization and, respectively, renewal of current legislative base and its approximation with EU energy acquis.

Georgia is rich of renewable energy sources out of which the water resources have the largest energy potential. According to the shares of water resources per capita Georgia is one of the leading countries throughout the world, however only 20-22% of the technical potential of the water resources is utilized. On the other hand, utilization of wind energy has special importance due to the seasonality potential, as far as water resources in winter months are quite low. According to the researches total assumed potential of wind resources in Georgia is 1,450 MW, whereas its average annual generation - 4,160 mln.kwh¹¹. Solar and geothermal potential of Georgia is also quite important and their utilisation would improve the energy security of the country and decrease the dependence on import.

1.4.1. Net-Metering Implementation Results

¹¹ Ministry of Economy and Sustainable Development of Georgia

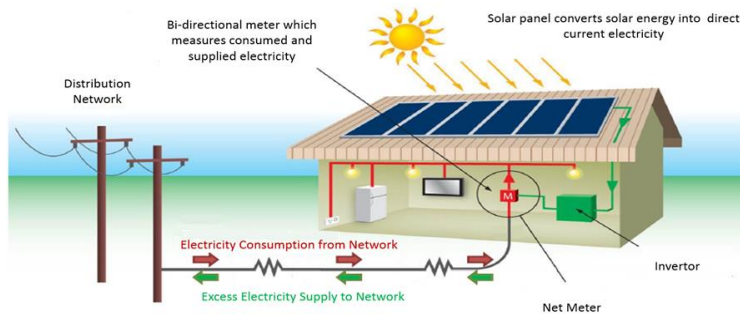


Figure 1.32 Scheme illustrating net-metering

Customers' active participation in the operation of electricity retail market is the modern tendency of the development of electricity market. Satisfying own consumption and development of micro-generating energy sources is supported through different incentivizing policies at an international level. One of the traditional and widespread policies of developing micro-generating power plants owned by customers is net-metering that has gained its popularity in Georgia as well.

According to the data collected by the Commission, by the end of reporting year 27 subscribers of Telasi JSC, with 358.14 kW installed capacity and 40 subscribers of Energo-Pro Georgia JSC with 381.61 kW total installed capacity were applying net-metering. In 2018 total number of subscribers was 67 with 739.75 kW total installed capacity. Number of subscribers using net-metering has been increased by 2.4 and connected capacity – by 2.7 in comparison to the previous year. Net-metering project enables customers to satisfy own energy demand, deliver excess energy to the network and make respective settlement.

In 2018 the Commission was actively working on the improvement of net-metering regulation which implies group connection possibilities within the net-metering program.

2. Natural Gas Sector

The share of natural gas in the total energy consumption is characterized by a slow but growing trend. At the same time, there is a decrease in the share of biofuels and waste, which may be caused by active gasification process and the replacement of solid fuels with natural gas (See Figure 2.1).

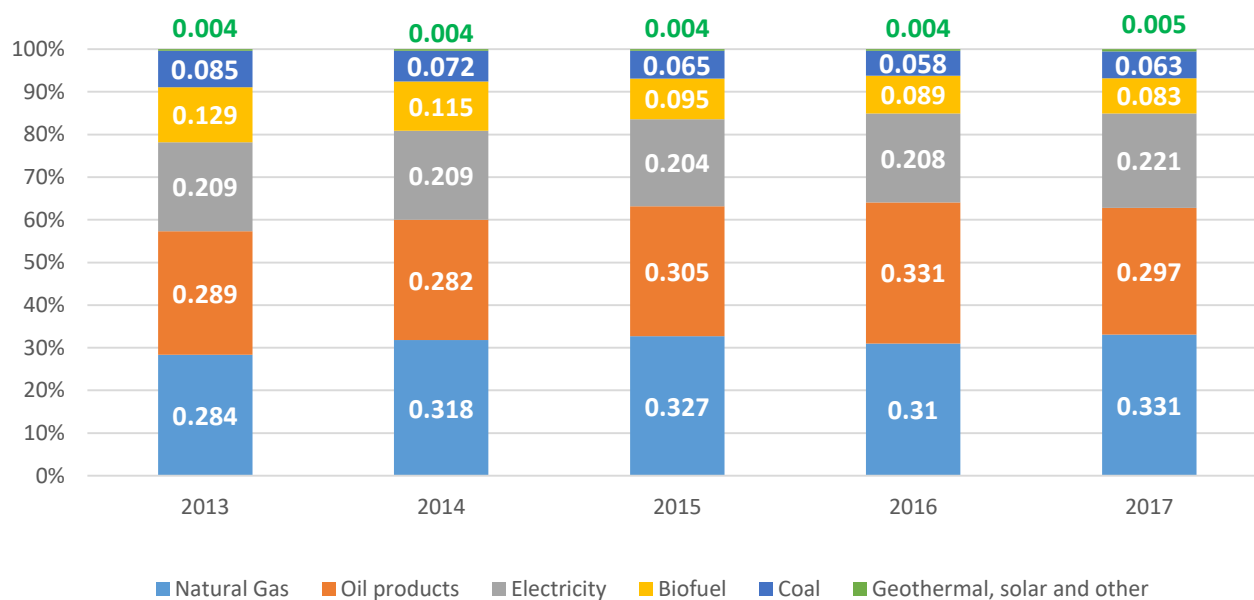


Figure 2.1. Energy Balance of Georgia¹²

Natural gas is used by population and companies mainly for cooking, heating of water and apartments. Despite the gasification of new settlements and the connection of new subscribers to the network, the consumption of the natural gas was still reduced mainly because of the warmer winter in 2018 (see Figure 2.6). According to Figure 2.2, it is possible to assess the size of the natural gas market of Georgia and the parameters of main flows of natural gas in 2018.

¹² Source: National Statistic office of Georgia

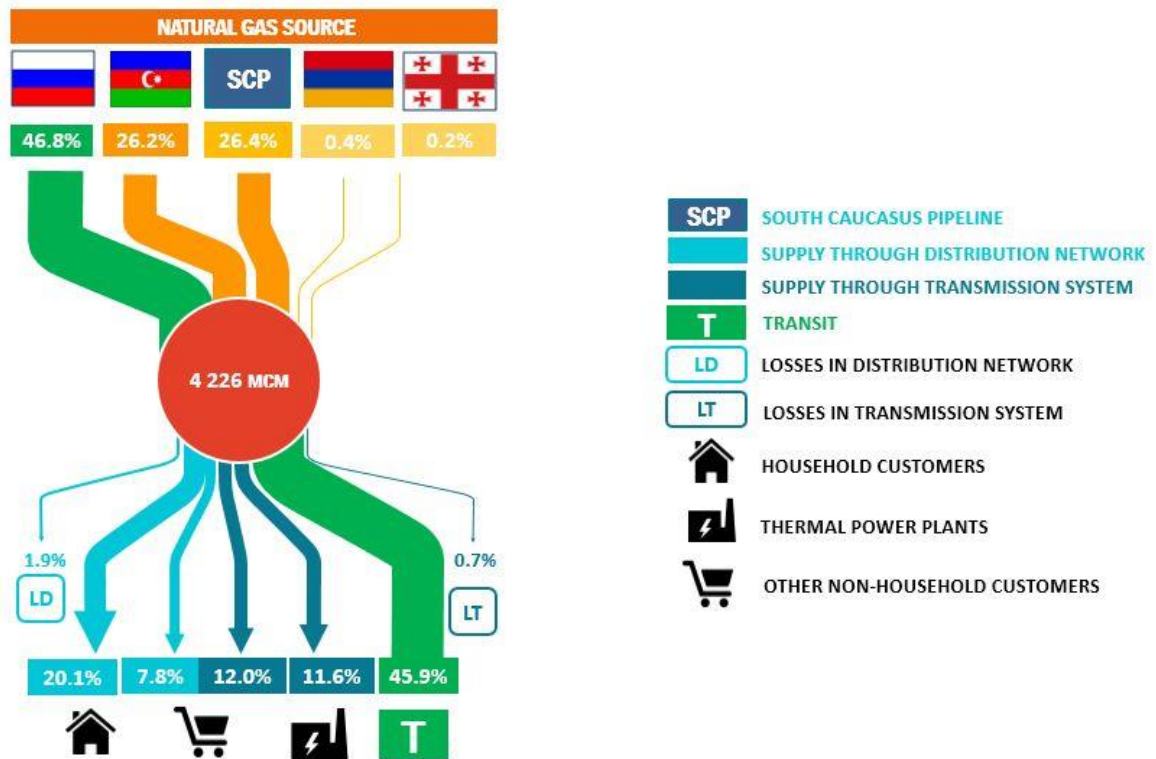


Figure 2.2. Balance of Natural Gas¹³

2.1. Natural Gas Market

Like previous years the structure of the natural gas market of Georgia remains unchanged. The companies affiliated to Socar are still holding dominated positions and participating in the wholesale and retail markets. Natural gas organized market does not exist in Georgia. Due to this reason selling and purchasing of natural gas take place through bilateral agreements only. At present the natural gas market of Georgia is concentrated at the wholesale and retail levels. Therefore, one of the challenges is an access to the natural gas for the deregulated customers in a competitive price.

The protocol concerning the Accession of Georgia to the Treaty Establishing Energy Community envisages reforming of the natural gas sector including the natural gas market by 2021. The third energy package of Europe¹⁴ focuses on customer rights for them to have possibility to choose the supplier on the competitive market and as a result, purchase natural gas in a competitive price through healthy competition. Together with other factors, competition on the market is hard to exist without sufficient number of suppliers. In order to reach the above-mentioned goal, non-discriminatory and fair conditions on the natural gas market for accessing suppliers shall be introduced.

One of the basis for developing competitive market is free access to the network to import natural gas in the country and supply it to the customers in an unhindered manner. Apart from unbundling the

¹³ The data used in this chapter are preliminary and may be changed as a result of the audited data submitted by the regulated utilities.

¹⁴ Legislation on regulation of the natural gas market in the EU of which Directive 2009/73/EC and Regulation 2009/715 can be distinguished.

interest in the supply activities from the network operators (distribution and transportation licensees), it is crucial to provide transparency, however, along with general conditions the geographical location of Georgia, characteristics of connected markets and the fact that supply of commercial gas is carried out from actually one source, shall be taken into account.

By considering the fact that setting a natural gas price for non-household (commercial) customers contradicts the requirements of the third energy package of Europe and accordingly is not compatible with the obligations imposed on Georgia after joining the Energy Community, the development of competition on the market is one of the challenges in the framework of natural gas sector.

2.1.1. Regulatory Frameworks

In 2018 the regulatory framework of natural gas sector was updated, in particular, the amendments were made to the primary and secondary legislation in the reporting year:

1. Pursuant to the amendments to the Law of Georgia on Electricity and Natural Gas, the issue regarding the notification the Commission about commencement of the activities by the supplier was resolved. Before the above-mentioned amendments, natural gas suppliers were entitled to carry out activities without notifying the Commission. Due to this fact, the Commission was unable to fully record the regulated utilities (suppliers) on the market. In addition, the Commission became obliged to approve Uniform System of Accounts (USoA) for the natural gas transportation licensees and distribution licensees before December 31, 2021.
2. Under the Resolution №22 of August 31, 2018 the Commission approved Natural Gas Network Rules. The rules define the procedures, conditions and principles for managing the transportation system, distribution network and using the network, the relationships between existing companies in the natural gas sector and the persons using their services. The rules resolved the issues such as the connection to the transportation system, the relationship between the system user and the transportation licensee. In addition, the qualitative characteristics of natural gas were determined that should be met by the natural gas injected in the transportation system, etc.

The network rules envisage the requirements necessary for accessing the natural gas systems and determines transparency standards that is one of the basic preconditions for development of competition. The development of a new model of the natural gas market significantly depends on efficient implementation of the requirements set by the above-mentioned document.

It is noteworthy that Energy Community approved the European network rules and made this regulation binding for the contracting parties. European network rules resolved the issues such as allocation of capacity, congestion management, interoperability of the systems and data exchange, and tariffs. The major part of the above-mentioned regulations refers to the cross-border points between contracting parties of the Energy Community. Since Georgia is not connected to any of the contracting party, the above-mentioned rules are not mandatory. However, the Natural Gas Network Rules of Georgia is mainly based on the principles set by European regulations and at the same time, envisage the practices and approaches applied in Georgia.

2.1.2 Market structure and its participants

During 2017 no significant structural changes occurred on the natural gas market. The natural gas market with its nature and characteristics can be divided into two levels. Despite the fact that it is not defined by the legislation, the wholesale and retail levels of the natural gas market (trading) can be distinguished. At the wholesale level the suppliers import natural gas (or purchase small amount of extracted natural gas) and resell it to other suppliers while at the retail level suppliers supply natural gas directly to the end-use customers. The above-mentioned fact does not exclude the activity of one supplier at both levels of the market. In 2018, 33 suppliers carried out activities on the market - two of them were active only on the wholesale market, 25 only on the retail market and 6 - at both levels of the market.

Physical delivery of natural gas to the end-user customers is provided by natural gas transportation (whose basic function is to transport natural gas from the source of its extraction or import to the residential areas) and distribution licensees.

2.1.3. Functional, legal and ownership unbundling

Pursuant to the current legislation natural gas distribution and supply are considered as different activities, however, the distribution licensees are not prohibited to carry out supply activities and therefore, they also represent natural gas suppliers within their scope. According to the third energy package of Europe (Directive 2009/73/EC), legal unbundling of distribution licensees is obligatory if the number of such licensees exceeds 100 000. The country can decrease the above-mentioned limit and make unbundling obligatory for all the distribution licensees regardless of their size.

In 2018 the exception was 4 natural gas distribution licensees that did not carry out natural gas supply within their scope. In addition, in 3 cases the licensees could not carry out supply due to financial problems. In case of 6 distribution licensees, more than one supplier carries out the supply of natural gas in their license area. It is noteworthy that apart from the distribution licensees, other suppliers (independent suppliers) supply natural gas mainly to the non-household (commercial) customers within their scope defined by the license. The share of independence suppliers constitutes 1% of the consumption by the retail household customers and 11% of the consumption by the non-household customers¹⁵. Significant interest in the commercial sector is caused by deregulation of the natural gas supply activity in the above-mentioned parts and the size of the customers. Despite the fact that different suppliers access the scope of one distribution area to some extent, in fact, the customer does not change the supplier. Correction of this practice will be one of the priorities for the Commission in the coming years.

According to the third energy package, ownership unbundling is obligatory for the natural gas transportation licensee (Georgian Gas Transportation Company LLC). However, two alternatives are also considered which can be chosen by the country. As highlighted in the reports of the previous years, the effective status of the transportation licensee in Georgia is very close to the definition of the Independent System Operator (based on the lease agreement owns the natural gas transportation system of Georgia). However, in order to achieve full compatibility, it is necessary to be functionally fully independent from the system owner, not to carry out the natural gas supply and address other less important issues.

¹⁵ In case of the companies of one group the supply of other affiliated supplier of the same group in the scope of the distribution licensee is considered as the supply within its own scope.

2.1.4. Main characteristics of a market

As it was mentioned above, the natural gas market with its nature and characteristics can be divided into retail and wholesale markets. On the wholesale market natural gas trading is carried out between suppliers while on retail market natural gas is supplied to end-users. For the purposes of this chapter, the wholesale supplier is a supplier who supplies even a small part from sold amount of natural gas to another supplier.

2.1.4.1. Natural Gas Wholesale Market

The Republic of Azerbaijan still remains as the main supplier of natural gas for Georgia. Through different contracts Georgia receives 61.3% of natural gas necessary to satisfy its needs¹⁶. At the same time, Georgia carries out transit of natural gas from Russia to Armenia.

In 2018 four suppliers imported natural gas in Georgia to satisfy the demand of the country. 99.8% of demand of natural gas of Georgia was satisfied through the import. Four suppliers, out of which one of them is also an importer, purchased local extraction and injected natural gas in the transportation system of Georgia. Accordingly, in total 7 suppliers allocated natural gas on the natural gas wholesale market of Georgia. At this level of trading (injection of natural gas in the wholesale market) Herfindahl-Hirschman index (HHI) between suppliers constituted 5,050 that indicates a highly concentrated market. The index is slightly worsened compared to the previous years that mainly reflects the changes in shares of natural gas sources other than the changes on the market in terms of competition. Such situation is particularly typical for the countries which are not sufficiently connected to the neighboring countries and/or the importers not interested in utilizing different sources. Compared to some countries of Eastern Europe where HHI indicator reaches 10,000 the natural gas market of Georgia is not characterized with monopolistic structure at the import level. The information on natural gas delivered to Georgia in 2018 is highlighted in the Table 2.1.

Natural Gas Entry Points		2016	2017	2018
Azerbaijan		1 321	1 200	1 105
Russia		122	135	39
Armenia		19	0	15
SCP	Additional and optional	792	821	822
	Import	0	180	296
Local Extraction		6	8	9
Total		2 261	2 344	2 286

Table 2.1. Natural gas delivery to Georgia by entry points (Mln m³)

¹⁶ Except for additional and optional gas delivered from the South Caucasus Pipeline (SCP).

8 suppliers carried out trading in natural gas available on the Georgian market at the wholesale level. The share of 3 largest suppliers amounted 92% and HHI index constituted 2,929 that indicates a highly concentrated market. If we consider only a commercial gas segment, in this case the share of 3 largest suppliers is 92% and HHI - 4,362. Under the circumstances when the natural gas market at the import level is characterized by high concentration, the development of competition in trading at the wholesale level is impossible without imposing special measures. Apart from the arrangements indicated in the beginning of this chapter, searching for alternative sources of natural gas is important in the long-term perspective (including access to liquefied natural gas and the Turkish market and importing in the Georgian market through so-called swaps) which can be implemented in case of relevant amendments to the legislation and interests of suppliers. In addition, it is very important to promote local production, including biogas, and support integration in the network.

The price of natural gas is significantly conditioned by the level of competition on the market, including at the wholesale level. Upon determining the average price at the wholesale level, the average weighted price of natural gas sold by each supplier on this market segment is considered. Separation of social and commercial segments is also important in case of price determination.

As it was mentioned, Georgia purchases so-called social gas in a preferential price which is used for consumption purposes by the population and TPPs. Accordingly in this segment, retail and wholesale prices of natural gas is significantly low compared to the commercial segment. Estimation of social gas price at the wholesale level is possible through the natural gas price envisaged upon determining consumption tariff by the Commission which varies from 0.25 to 0.30 Tetri/m³ taking into account subsidies at various levels of government.

As for the commercial segment, at this level of trading 7 suppliers are active and the volume of natural gas sold by them (total sold volume) amounted 760 mln m³. In 2018 the average price of natural gas at this level of trading accounted for 0.53 GEL/m³.

It would be interesting to compare natural gas prices on the European wholesale markets. Unlike Georgia the prices of natural gas on the European organized markets (so called hubs) significantly differs by seasons and demand-supply ratio. Recently, due to the increase of connecting capacities and construction of new connectors the prices of different markets converge to each other. For the purposes of comparison, Figure 2.3 indicates the price trend at Central European gas hub¹⁷ by 2018. Minimum price amounted ≈18 Euro/MWh that constitutes 0.57 GEL/m³.

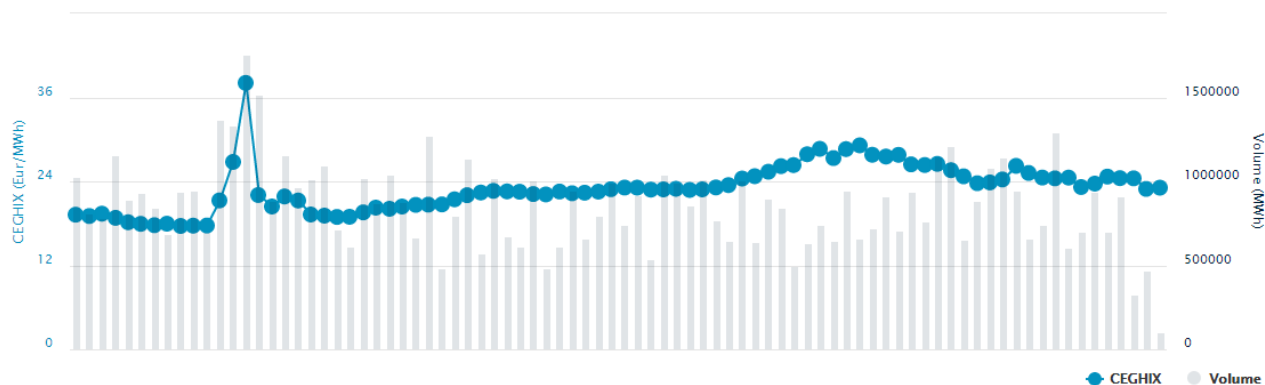


Figure 2.3. Natural gas prices at Central European gas hub, 2018 (Euro/MWh)

¹⁷ Source: Central European Gas Hub AG (CEGH), www.cegh.at

2.1.4.2. Natural Gas Retail Market

The change in the natural gas consumption structure since 2014 has been caused by the increase of natural gas consumption by the population on the one hand and by slight decrease of the consumption by the TPP and fuel filling stations on the other. The structure of natural gas consumption and information on natural gas consumed by each sector is given on Figures 2.4 and 2.5

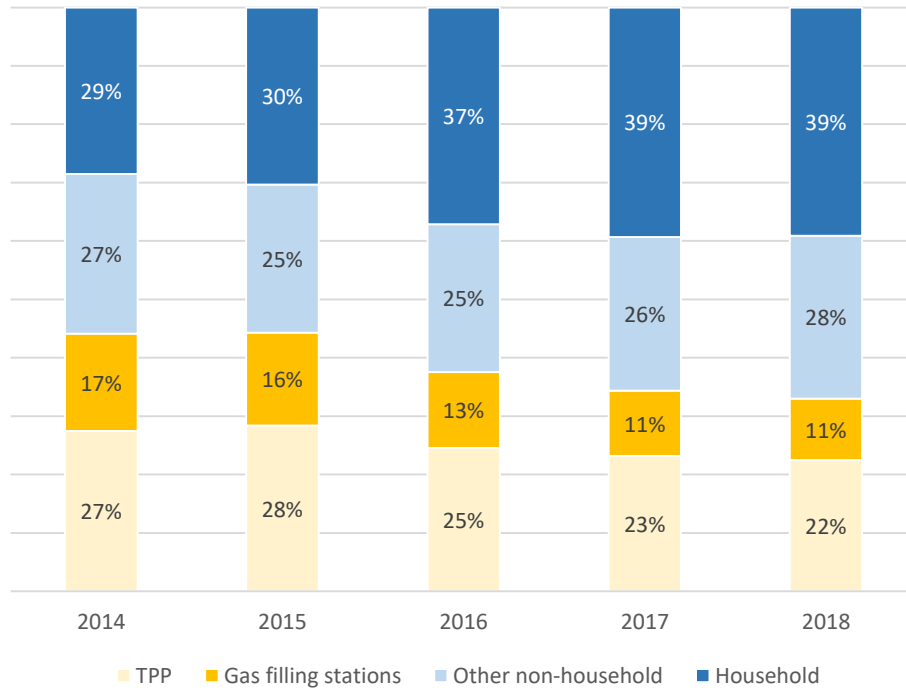


Figure 2.4. Natural gas consumption by different sectors (%)

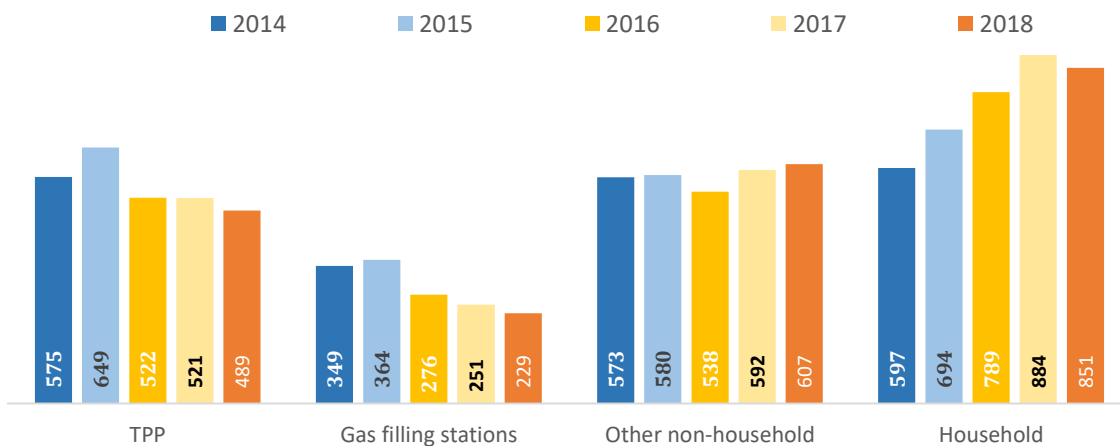


Figure 2.5. Natural gas consumption by different sectors (mln m³)

Due to gasification process of the new residential areas and the increase of the capacity of installations by the customers (switching to the central heating boilers), the consumption by the household

customers has been constantly increasing for the last years. 2018 was an exception when the demand of natural gas by the population decreased. It was mainly conditioned by the warm winter period (see Figure 2.6). At the same time, the increase of natural gas consumption tariffs from the second half of 2017 shall be taken into account that would probably have influenced the consumption of natural gas.

The formation on heating degree days in Tbilisi for the years of 2012-2018 is given on Figure 2.6. As it is obvious from the Figure, the heating degree days are characterized by decreasing trend. Compared to 2017, the number of heating degree days was decreased by 16% in 2018 which means that compared to the previous year it was necessary to heat the buildings by 16% less degrees in 2018.

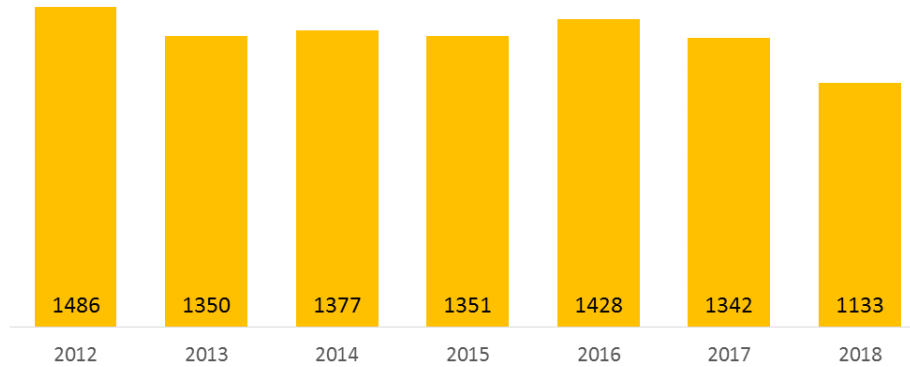


Figure 2.6. Heating degree days in Tbilisi¹⁸

Heating Degree Day (HDD) is a measurement of severity and duration of cold weather. It measures the difference between ambient temperature and basic temperature. The basic temperature is the balance point, i.e. minimum ambient temperature, when heating of the building is not necessary. If the average daily temperature is lower than basic temperature, then turning on heating is necessary and the difference between temperatures is the degree day of that day.

¹⁸ Information source of the weather is Georgian National Environmental Agency LEPL

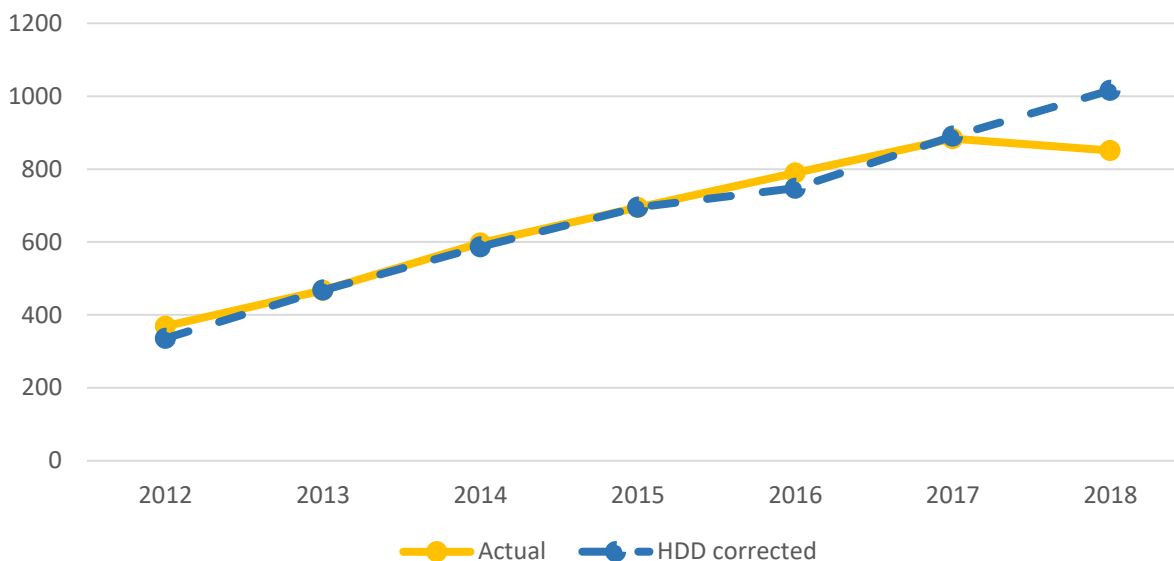


Figure 2.7. Natural gas consumed by the household customers by actual volumes and volumes adjusted by HDDs

Despite the fact that information illustrated on the Figure 2.6 referred to only the capital of Georgia it can be assumed that the trend is more or less similar in the whole country. By considering the above-mentioned assumption, the Figure 2.7 shows natural gas volume consumed by the household customers by actual volumes and volumes adjusted¹⁹ by HDDs in the years 2012-2018. As it is clear from the Figure, in spite of the fact that natural gas consumption by household customers was decreased in 2018, consumption increase rate would have continued if not warm winter period in 2018 (mainly due to the first warm quarter) compared to the winter of the last 6 years.

The volume of natural gas consumed by TPP and using natural gas in transport has slightly decreased. After 2015 when using natural gas in transport reached peak, the consumption in this sector is constantly decreasing. One of the reasons for the above-mentioned is the increase of natural gas prices, increase of fees for this type of fuel, the prices on competitors' fuel (increased competition from LPG recently need to be taken), increase of import of hybrid and electric cars which mainly replace the vehicles running on natural gas. By considering the fact that using environmentally friendly transport has been promoted lately, the price of natural gas is less competitive compared to its substitutes. It is likely that using natural gas in transport will still decrease. The demand for natural gas in other fields of economy is more or less equal for the last 5 years.

In 2018 the Commission collected information on the consumption of natural gas in different sectors of economy. As Figure 2.8 illustrates, the biggest consumers are **trading, repair²⁰ of cars, household appliances and means of personal consumption, processing industry and generation and distribution sectors of electricity, natural gas and water²¹**. In total, they consume 83% of natural gas consumed by the commercial sector. From the above mentioned three sectors, **generation and distribution sector of electricity, gas and water** are mostly characterized by seasonality due to the necessity of generating electricity by TPPs. However, the consumption of natural gas by other two sectors is more or less stable. Figure 2.9 illustrates the demand on natural gas by months according to the sectors.

¹⁹ according to deviation from average HDD in 2012-2018

²⁰ This category includes natural purchase by gas filling stations.

²¹ Including TPPs.

Table 2.2 indicates the share of different sectors of the economy in the total consumption and seasonal coefficient²² of the above-mentioned sectors. As it is clear from the Table, the majority of sectors is characterized by sharply expressed seasonality.

	Seasonal coefficient (%)	Share in total consumption (%)
Processing industry	54	20.0
Trading, repair of cars, household appliances and means of personal consumption	50	13.4
Generation and distribution sectors of electricity, natural gas and water	81	53.9
Providing other municipal, social and personal services	68	4.7
Hotels and restaurants	67	2.0
Education	92	1.7
State governance	82	1.5
Healthcare and social assistance	82	1.1
Agriculture, hunting and forestry; fishing	76	0.5
Transport and communications	54	0.4
Other	67	0.8

Table 2.2. The characteristics of natural gas consumption by different sectors of economy

Consumption of natural gas by household customers is also characterized by sharply expressed seasonality. Figure 2.10 highlights natural gas consumption by household customers (population) according to months.

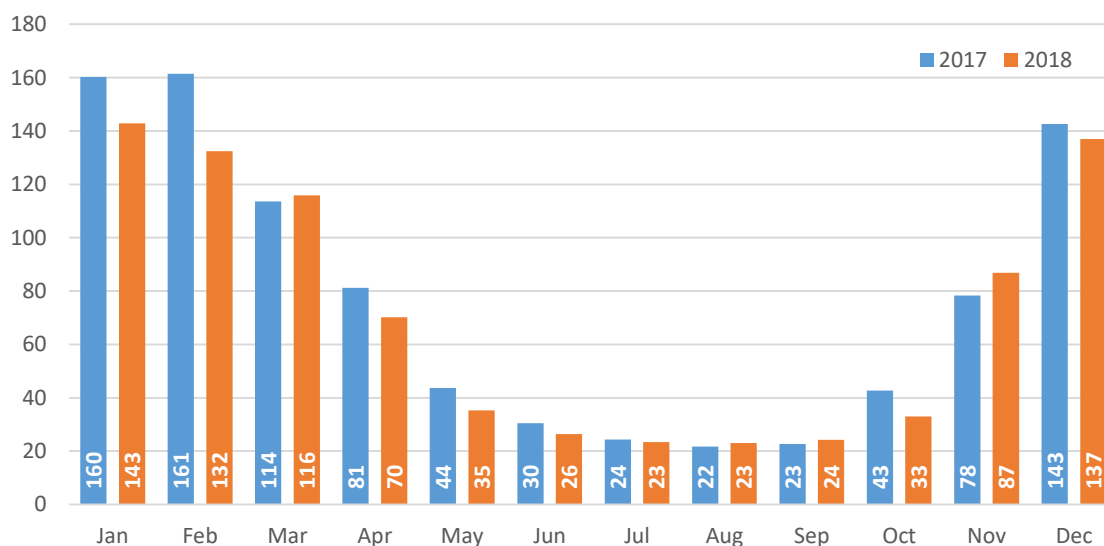


Figure 2.10. Natural gas consumption by household customers (mln m³)

²² Seasonal coefficient is the ratio of the demand of the sector in the winter period (the beginning and the last 3 months of the year) to the annual demand of this sector. The farther coefficient is from 50%, the more seasonal is the consumption. If the coefficient converges to 100%, the consumption is high in the winter. If the coefficient converges to 0%, the consumption is high in the summer period. In the case of 50%, the consumption is equal in summer and winter periods.

In 2018, gasification process of new residential areas was still ongoing and as a result, the number of retail customers (household and non-household) amounted 1,239,022 by the end of reporting year (see Figure 2.11).

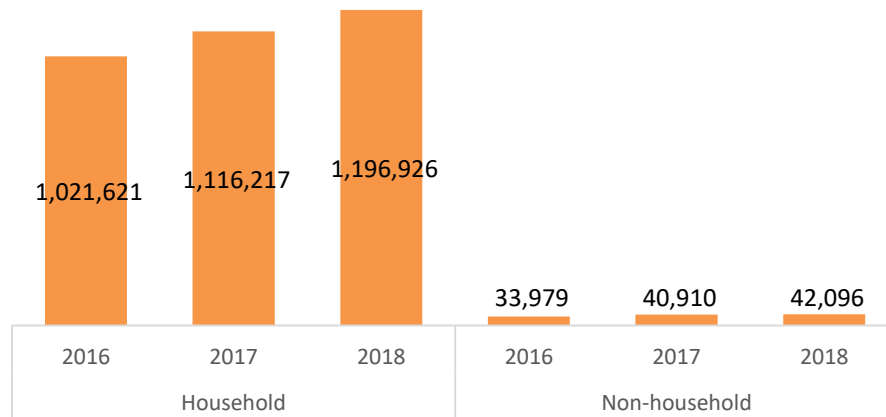


Figure 2.11. Number of natural gas customers

Non-active customers (who did not consume natural gas) that are actually passive during the whole year still have significant share in the total number of customers. Figure 2.12 illustrates the number of active and non-active customers by months. As it is obvious from the Figure, even though being connected to the distribution network, a significant part of the subscribers do not consume natural gas. The above-mentioned sites are closed and/or are seasonal residential dwellings. Despite the fact that distribution licensees constantly carry out services to provide non-active customers with possibilities to be provided with natural gas, and accordingly they incur costs, according to the existing tariff methodology, the customers who do not consume natural gas do not pay the costs (according to the existing legislation, the natural gas distribution tariff is set per unit of consumed natural gas and capacity/fixed component is not included). The above-mentioned circumstance is one of the factors based on which the discussion related to the occurrence of capacity/fixed component in the tariff shall start.

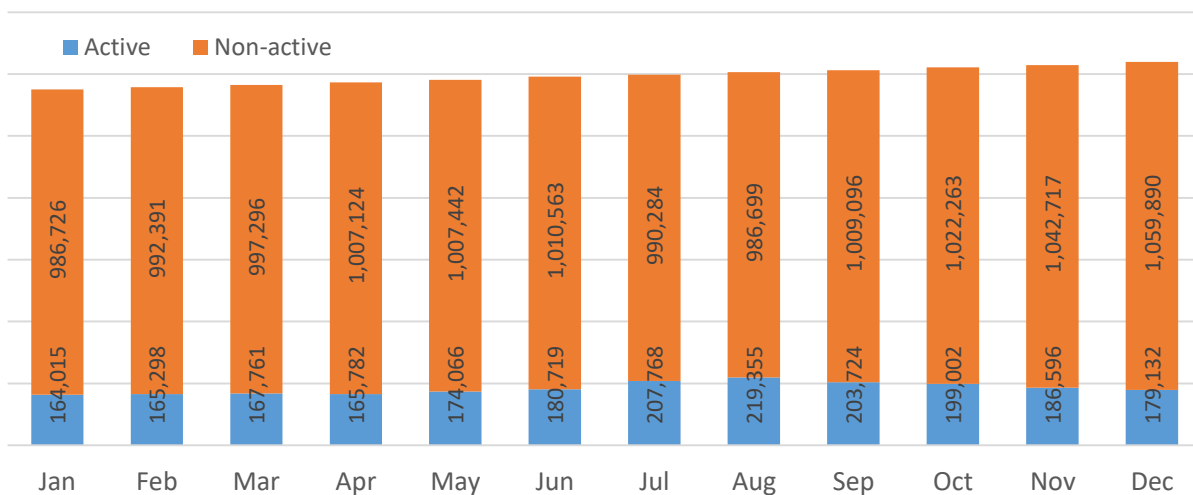


Figure 2.12. Number of active and non-active customers of natural gas in 2018

Natural gas consumption by household customers differs by the cities and rural areas and also by regions. Consumption of natural gas in towns, boroughs and especially in the villages per one household customer is significantly less than the similar indicator in the cities as firewood is still actively used for heating purposes. The regions of Mtskheta-Mtianeti and Adjara are exceptions. Big consumption in Mtskheta-Mtianeti region is explained by direct subsidies of natural gas fee in this region and especially, by cold climate and availability to firewood. In the rural areas of Adjara region, one of the main reasons for high consumption is a developed tourism sector. Figure 2.13 highlights the consumption of natural gas per one household customer by regions in urban and rural areas.

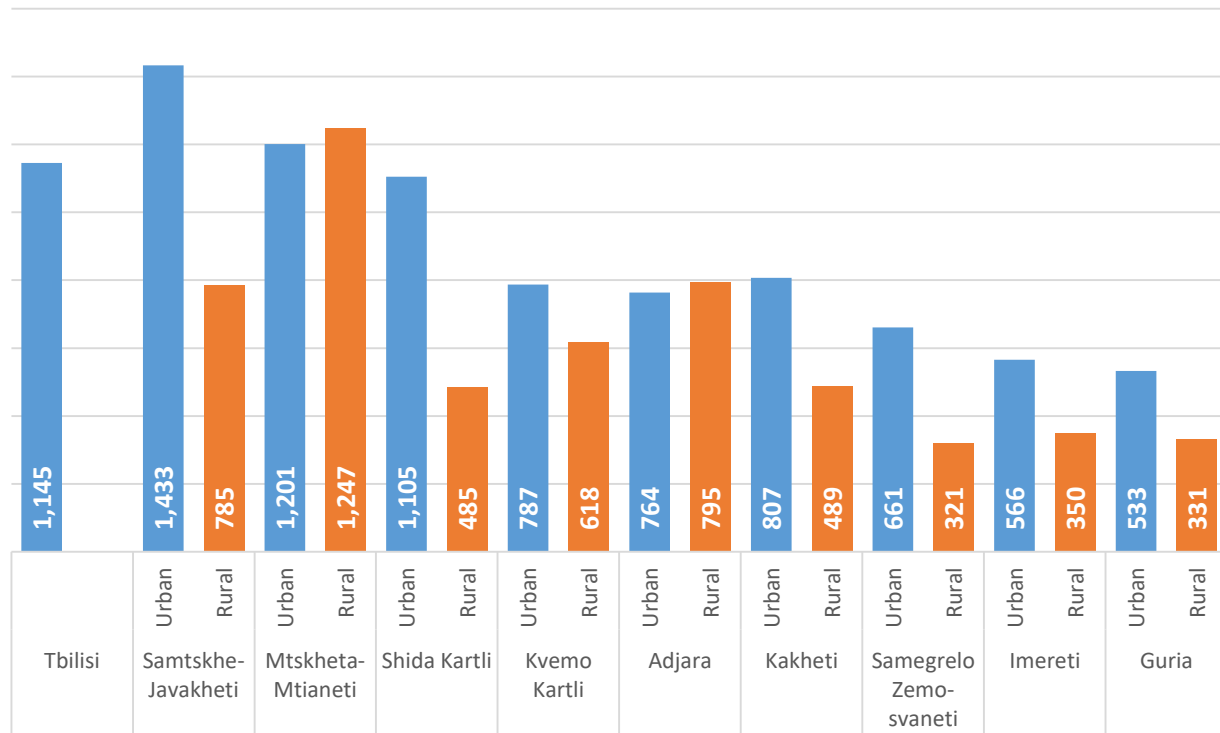


Figure 2.13. Natural gas annual consumption per household customer in 2018 (m³)

Based on the organization of the wholesale market, the prices of natural gas on the retail market significantly differs according to social (population and TPPs) and commercial customers.

The Commission sets consumption tariffs for household customers. Tariff regulation is discussed in Chapter 2.3. As for the non-household customers, the price of natural gas in this sector is not regulated and is determined based on the agreement concluded between the customer and the supplier. Pursuant to the provisions set by the Commission, for the non-household customers connected to the distribution network, the price of natural gas is determined through a public offer, which means that the supplier is obliged to sell natural gas only in the preliminary offered price. The above-mentioned obligation is not imposed on the suppliers in case of the commercial customers connected to the transportation system. By considering the above-mentioned, the average price of natural gas for the commercial customer connected to the distribution network amounted 0.57 GEL/m³ and for the commercial customer connected to the

transportation system the similar Figure exceeded²³ 0.69 GEL/m³. The retail and direct customers shall be treated equally.

Structure of consumption tariffs of end-use customers considering its all components are given in Figure 2.14.

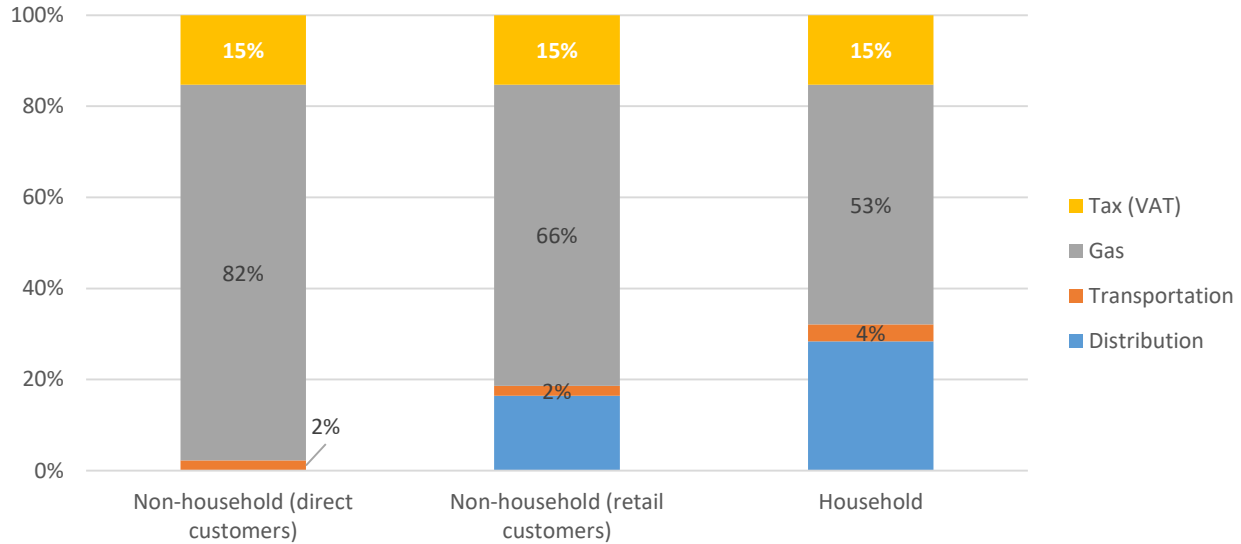


Figure 2.14. Structure of natural gas consumption tariff

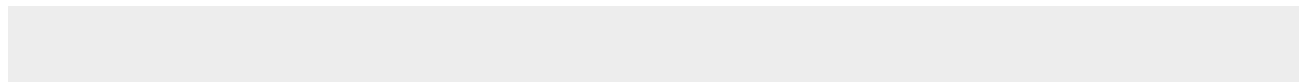
2.2. Licensing

Natural gas transportation and distribution are licensed activities. According to the last data of the reporting period, the Commission issued 27 licenses - one in the transportation and 26 in the distribution sectors. The Commission controls fulfillment of license conditions by the licensees.

2.2.1. Natural gas transportation

The natural gas transportation system consists of gas pipelines and its components which operate or are designed on more than 1.2 MPa pressure and through it the natural gas transportation licensee carries out transportation of natural gas. The Commission has issued only one natural gas transportation license to Georgian Gas Transportation Company LLC which carries out transportation of natural gas in the whole territory of Georgia.

At present, transportation system has 7 entry points out of which 3 is the entry point from local extraction. The information on each point is illustrated on Figure 2.15.



²³ The price of natural gas supplied to TPPs and for non-energy purposes is not included in the above-mentioned calculation because of their size, not to influence the prices for other customers.

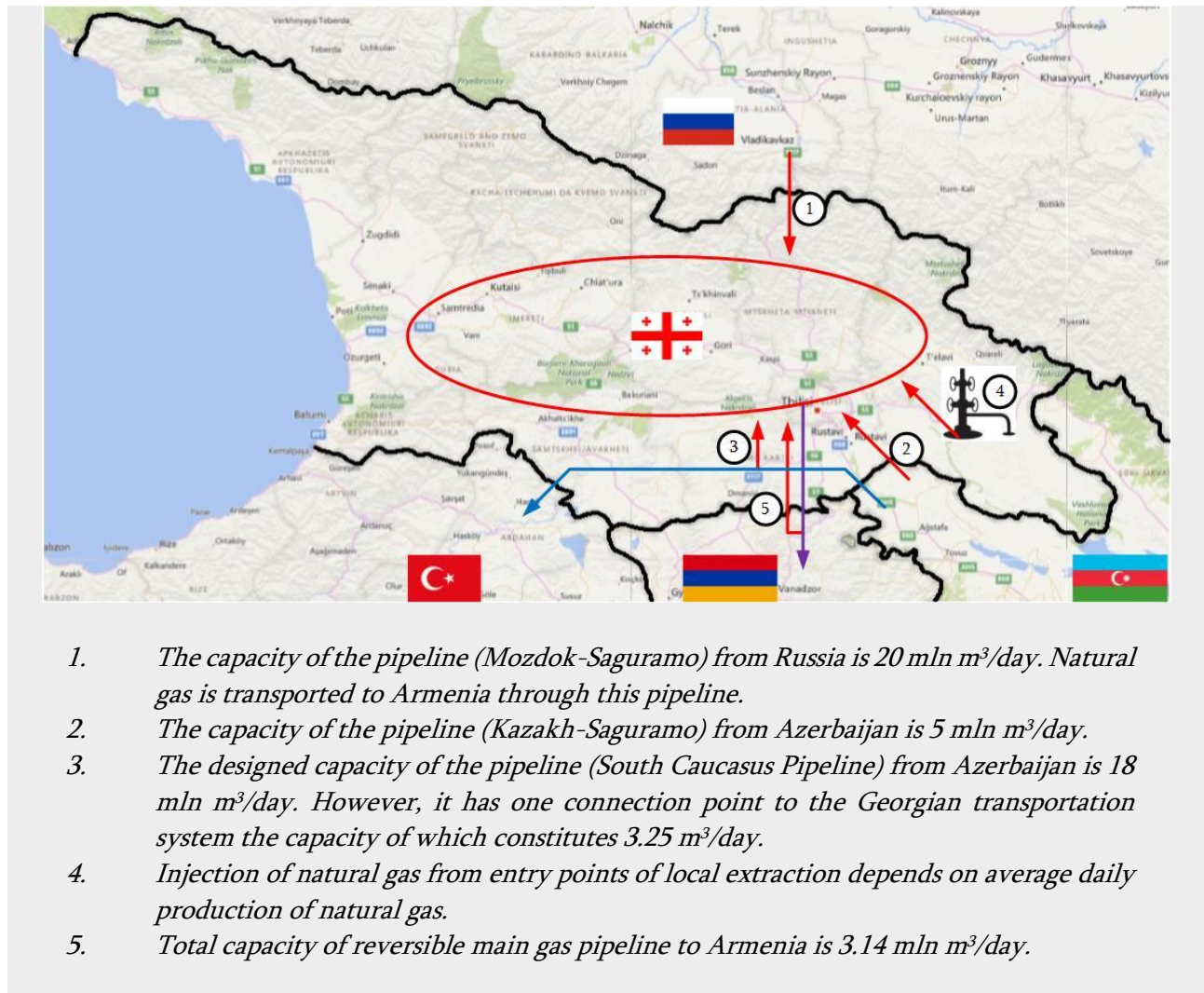


Figure 2.15. Natural gas entry points in Georgia

In parallel with consumption growth, it is important to optimize entry capacities through their increase or diversification to ensure the security of supply. One of the tools to increase the security of supply is a natural gas storage. At present, the preparatory works are ongoing for the construction of natural gas storage.

Natural gas normative losses in the transportation system is approved by the Commission. The above-mentioned methodology gives incentives to the transportation licensee to decrease actual losses and thus benefit from the decrease. At the same time, the decrease of actual losses will be reflected for the customers in the next tariff periods. The volume to be reimbursed through tariff will be decreased. As a result of the measures taken by the transportation licensee in 2018, the losses significantly decreased in the natural gas transportation system. The volume of normative losses in the natural gas transportation system is highlighted on Figure 2.16.

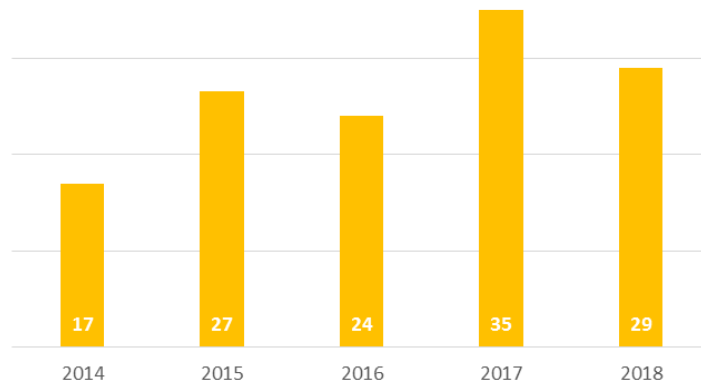


Figure 2.16. The volume of losses in the natural gas transportation system of Georgia (mln m³)

The owner of the transportation system of Georgia, Georgian Oil and Gas Corporation JSC (GOGC) prepared the transport infrastructure development plan for the years 2019-2028. Within the framework of this plan, throughout 2018 GOGC completed construction works of the first 45 km of Kobuleti branch and rehabilitation work of Sagarejo-Gurjaani 500 mm gas pipeline of Kakheti branch.

Within the framework of 2019 -2028 plan implementation of short, mid and long-term investment projects are envisaged:

- Implementation of short-term investment projects (with estimated total cost of 170.6 mln GEL);
- mid-term investment projects (estimated total cost of 54.4 mln GEL);
- long-term investment projects (after 2023). They will be financed in the framework of implementation of a new transit project and it is not included in the total expenditures of investment projects of GOGC (with estimated total cost of 1701 mln GEL).

2.2.2. Natural Gas Distribution

By December 31, 2018, 26 distribution licensees operated in Georgia. Three of them are large licensees (KazTransGas Tbilisi JSC, Socar Georgia Gas LLC, SakOrgGas JSC). Three large distribution licensees allocated 90% of total distributed natural gas (see Figure 2.17).

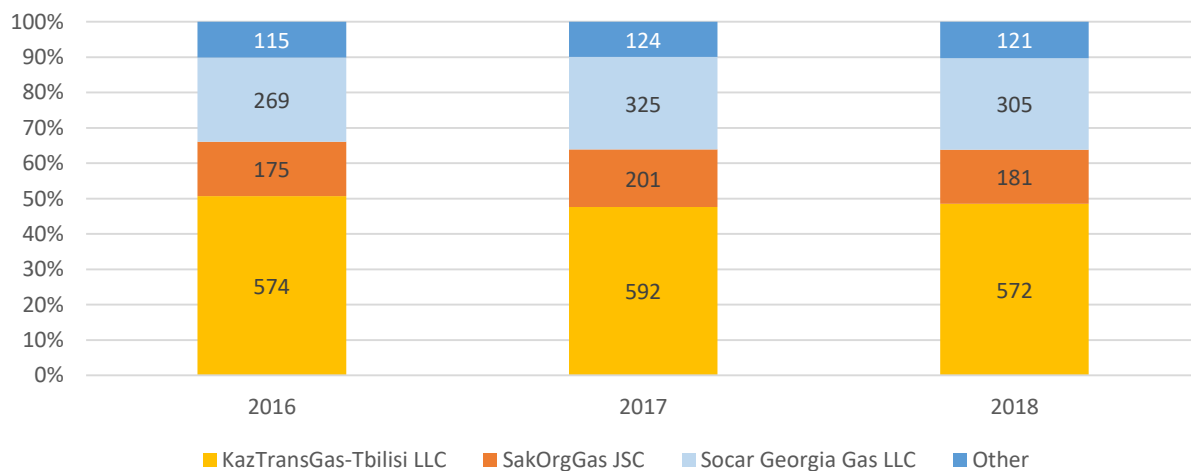


Figure 2.17. The share of distribution licensees in the total distributed natural gas (mln m³;%)

2.2.3. License applications and Amendments in License Registry

The Commission issues the licenses in the natural gas sector, makes amendments and revokes them, also defines the license conditions and monitors their performance. Pursuant to the law of Georgia on Electricity and Natural Gas, the Commission issues natural gas distribution and transportation licenses in the natural gas sector. The license is issued for a lifetime.

In 2018, two applications on issuing natural gas distribution licenses were reviewed in the Commission. The Commission reviewed the application of the licensed seeker Telavgazi LLC requesting to obtain a natural gas distribution license in the name of Wissol Petroleum Georgia JSC in the scope of natural gas distribution license under the Decision №6/1 of April 23, 2009 by considering that Telavgazi LLC was founded by Wissol Petroleum Georgia JSC and was granted the infrastructure under the ownership of the company. After reviewing the documents submitted by Telavgazi LLC, the Commission made the decision to satisfy the application and the natural gas distribution license was granted to Telavgazi LLC. As for the second application on issuing distribution license, the Commission reviewed the application of Dighomi Villa Gas LLC requesting to obtain the natural gas distribution license in the scope of the distribution network under its ownership in Dighomi 7-8-9-10, Tbilisi. However, the distribution licensee -KazTransGas Tbilisi JSC was operating in the above-mentioned scope and all the household and non-household persons in the license area were its customers i.e. so called independent customers did not exist. Accordingly, issuing the distribution license to Dighomi Villa Gas LLC would cause conflicts with KazTransGas Tbilisi LLC and its customers and threaten the sustainability and efficient operation of the natural gas distribution system. By taking the above-mentioned circumstances into account, the Commission made the decision to refuse to issue the license to Dighomi Villa Gas LLC.

In the reporting period 4 distribution licenses were modified, in particular, the amendments were made to the licensees of Inrtergazi LLC, Wissol Petroleum Georgia JSC, SakOrgGas JSC and Socar Georgia Gas LLC and their scopes were changed.

In 2018, one natural gas distribution license was revoked (Wissol Petroleum Georgia JSC). Based on the application of Wissol Petroleum Georgia JSC according to which the natural gas distribution infrastructure under its ownership was granted to Telavgazi LLC. Accordingly, upon entering the distribution license into force issued in the name of Telavgazi LLC, the natural gas distribution license issued in the name of Wissol Petroleum Georgia JSC was revoked.

In 2018, the Decision №43/1 of the Commission of November 3, 2014 was annulled and accordingly the list of gasified settlements based on which the connection to the natural gas distribution network was possible in the specific settlements with the fees and conditions approved by the Commission. Instead of the above-mentioned, under the Decision №68/16 of the Commission of August 30, 2018 the settlements were defined where connection fee does not temporarily apply. As a result, in total 35 settlements (where natural gas distribution is carried out) the licensees are not obliged to provide the connection of their customers with the connection fee.

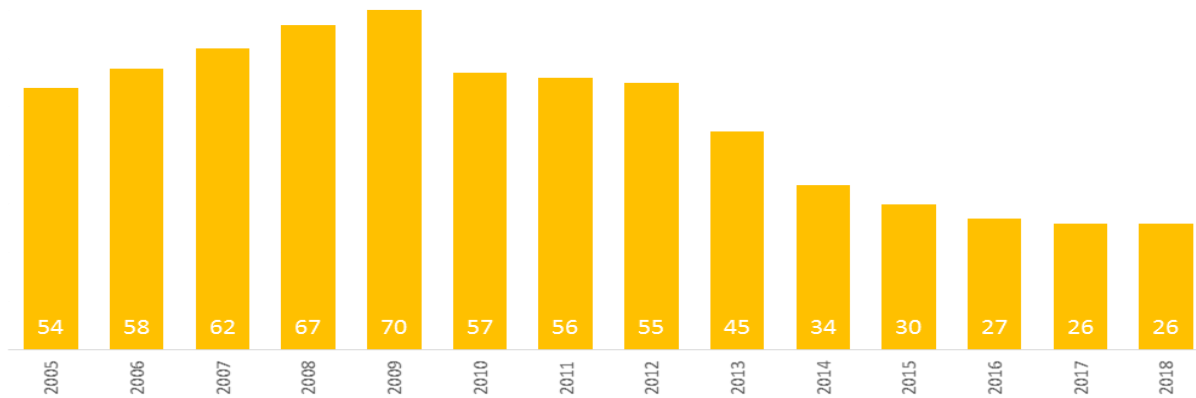


Figure 2.18. Dynamics of natural gas distribution licensees

2.2.4. Results of Technical Regulation

Natural gas is supplied through different sources in Georgia such as local production and import from neighboring countries. Accordingly technical parameters of natural gas are different.

Pursuant to the current legislation, the quality of natural gas is defined by interstate standard GOST 5542-87 based on which the minimum allowed calorific value is 7,600 kcal/m³ under standard conditions (20°C and 1 bar under pressure conditions). The average calorific values of natural gas imported in Georgia are given in the Figure 2.19 showing that the difference between natural gas calorific values received in the natural gas transportation system of Georgia during the year is minimal.

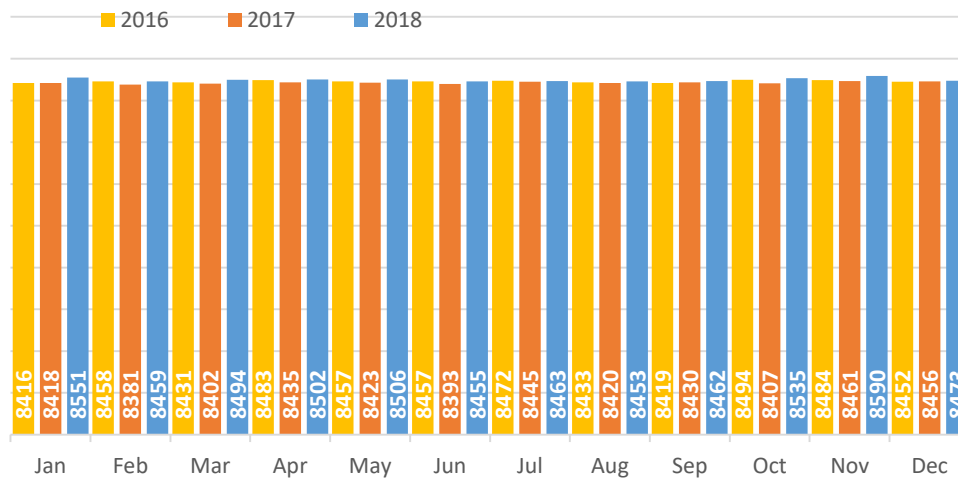


Figure 2.19. Average calorific values of natural gas imported in Georgia by months (kcal/m³)

2.3. Pricing and Tariff Regulation

2.3.1. Legal and Methodological Basis

The legal basis for setting relevant tariffs for natural gas sector licensees by the Commission is the Law of Georgia on Electricity and Natural Gas and Natural Gas Tariff Setting Methodology approved by the Commission's Resolution №33, December 25, 2014 in accordance with the law requirements. While calculating natural gas supply, transportation, distribution, wheeling and consumption tariffs, the cost-plus regulation principles recognized by the international practice is used.

Based on the amendment of May 4, 2018 to the Law of Georgia on Electricity and Natural Gas according to which the Commission approves the tariff within 180 days from submitting the tariff application to the Commission, the relevant amendments were made to the tariff methodology under the Commission's Resolutions №10 of July 2, 2018. In particular, pursuant to paragraph 1 of Article 27 of this methodology, the deadline for submitting the tariff application to the Commission was defined as no later than July 4 of the tariff calculation year.

2.3.2. Tariff Regulation and Current Tariffs of the Sector

Natural gas distribution and transportation activities represent natural monopolies and are subject to tariff regulation by the Commission. As for the natural gas supply, the natural gas supply activity for specific customer categories was deregulated pursuant to the Decree №69 of the Minister of Energy of Georgia, September 25, 2007 on Deregulation and Partial Deregulation of Natural Gas Supply Activity, for non-household customers and household customers gasified after September 1, 2007 (after August 1, 2008 in Tbilisi) supply tariffs are deregulated and they are supplied with natural gas without setting the tariff with the conditions and prices publicly offered by the supplier.

The above-mentioned Decree was amended by Decree №52 of the Minister of Energy of Georgia, August 14, 2017, according to which “the scope of this Decree does not apply to natural gas supply for individual persons (population – household customer) by those natural gas suppliers, for whom GNERC has set the consumption tariff of natural gas supply after July 1, 2017”.

In 2018, the Commission calculated the tariff of natural gas transportation for GGTC LLC and the tariffs of natural gas supply, distribution, wheeling and consumption for the following natural gas distribution licensees: KazTransGas Tbilisi LLC, Socar Georgia Gas LLC, SakOrgGas JSC and Arzu-Gazi LLC, for whom the tariffs were set from July 2017 and was applicable including December, 2018. In addition, in 2018 based on the new tariff methodology natural gas supply, distribution, wheeling and consumption tariffs were set for Taba LLC, Varketilairi LLC, Elektrokavshiri JSC, Sachkheregazi JSC and Wissol Petroleum Georgia JSC.

2.3.2.1 Natural Gas Transportation Tariff

On July 4, 2018, the tariff application with its attachments were submitted to the Commission requesting to set natural gas transportation tariff by Georgian Gas Transportation Company LLC.

High pressure main gas pipelines, the major part of which is under the ownership of GOGC LLC, based on the lease agreement is operated by GGTC LLC which carries out natural gas transportation activity and natural gas transit from Russia to Armenia. In addition, according to the Law of Georgia on

Electricity and Natural Gas and the activity of natural gas transit through the territory of Georgia is not regulated by the Commission. Hence, the net balance value of assets on the balance of the company and accordingly, the regulated cost base was allocated on natural gas transportation and transit activities for the expenses related to the natural gas transportation activity only to be reflected in the transportation tariff. As a result, pursuant to the Commission's Resolution №28 of December 10, 2018, the amendments were made to the Commission's Resolution №30 of December 30, 2005 and natural transportation tariff was set for GGTC LLC as 1.870 Tetri/m³ without VAT that will be effective from January 1, 2019 including December 31, 2019.

2.3.2.2. Natural Gas Distribution Tariffs

In 2018, based on the tariff applications of Socar Georgia Gas LLC, SakOrgGas JSC, KazTransGas Tbilisi LLC, Taba LLC, Varketilairi LLC, Elektrokavshiri JSC, SachkhereGazi JSC, Wissol Petroleum Georgia JSC and Arzu-Gazi LLC, the Commission calculated and set relevant tariffs for natural gas supply, distribution wheeling and consumption.

Socar Georgia Gas LLC

On July 4, 2018 Socar Georgia Gas LLC submitted an application to the Commission requesting to set natural gas supply, distribution, wheeling and consumption tariffs.

Within the framework of tariff application, the investments implemented by Socar Georgia Gas LLC in 2017 and 2018 and the cost of assets financed by the third party in the same period were reviewed and analyzed. In addition, as a result of revealed circumstances, the decision was made to further review the documentation of the investments implemented before 2017 in relation to specific issues. As a result, by considering a number of significant circumstances, the regulated asset base submitted by the utility was adjusted in terms of decrease.

In addition, pursuant to the condition of the agreement on purchasing a real estate, which means not to consider initial asset value equivalent to 150 mln USD in GEL (with the exchange rate at the moment of implementation of relevant investment), the net balance value of regulated assets of Socar Georgia Gas LLC was defined by December 31, 2018. In the framework of reviewing the tariff application, detailed audit of actual operation expenditures and incomes of Socar Georgia Gas LLC in 2017 was carried out. In addition, the regulated asset base was adjusted based on the difference between actual and planned data of natural gas distribution tariff, in particular, the income received from allocated volume, the cost of normative loss, capital expenses and operational expenses were adjusted by considering the fact that in the test year (2017) the tariff set by the tariff methodology was valid in the last 5 months of the year and accordingly the differences between actual and planned Figures of these 5 months were reflected in the tariff of 2019.

Based on the fact that the agreement on purchasing natural gas for household customers for 2019 had not been concluded at the moment of tariff setting, the Commission relied on the Letter №23/9993 of December 20, 2018 of the Ministry of Economy and Sustainable Development of Georgia, according to which for the purpose of providing availability to the new consumption tariffs for the population, the decision was made to decrease the supply price of so called social gas. Accordingly, the price of natural gas to be supplied for the household customers in the area of Socar Georgia Gas LLC was defined as 92.25 USD per 1000 m³ excluding VAT and the purchasing price for filling natural gas losses in the network – 185 USD per 1000 m³ excluding VAT, the exchange rate of GEL to USD was considered as 1 USD = 2.66 GEL.

Based on the above-mentioned, on the basis of reviewing and analyzing financial and technical indicators of the utility submitted by the tariff application, the Commission defined the regulated cost base of Socar Georgia Gas LLC which according to the regulated principles envisaged by the tariff methodology was allocated on supply and distribution activities. Accordingly, the natural gas supply tariff was set for Socar Georgia Gas LLC as 25.039 Tetri/m³, the distribution-wheeling tariff - 21.336 Tetri/m³ and the consumption tariff - 48.245 Tetri/m³ excluding VAT, which was approved under the Commission's Resolution №33 of July 26, 2018 and is valid from January 1, 2019 including December 31, 2019.

SakOrgGas JSC

On July 4, 2018 SakOrgGas JSC submitted an application to the Commission requesting to set natural gas supply, distribution, wheeling and consumption tariffs.

Within the framework of tariff application, the investments implemented by SakOrgGas JSC in 2017 and 2018 were reviewed and analyzed. In addition, the decision was made to further review the documentation of the investments implemented by SakOrgGas JSC before 2017 that revealed significant circumstances. As a result, the regulated asset base submitted by the utility was adjusted in terms of decrease.

Audited data of operational expenses of 2017 submitted by the tariff application was considered as a base of operating expenses of SakOrgGas JSC for the tariff year. The Commission analyzed in detail operational expenses submitted and justified in the tariff application, based on the authenticity of each expense incurred by the utility, the factors of reasonability, rationality and necessity.

In addition, the regulated asset base was adjusted based on the difference between actual and planned data of the natural gas distribution tariff, in particular, the income received from allocated volume, the cost of normative loss, capital expenses and operational expenses were adjusted by considering the fact that in the test year (2017) the tariff set by the tariff methodology was valid in the last 5 months of the year.

Based on the fact that the agreement on purchasing natural gas for household customers for 2019 had not been concluded at the moment of tariff setting, the Commission relied on the Letter №23/9993 of December 20, 2018 of the Ministry of Economy and Sustainable Development of Georgia, according to which for the purpose of providing availability to the new consumption tariffs for the population, the decision was made to decrease supply price of so called social gas. Accordingly, the price of natural gas to be supplied for the household customers in the area of SakOrgGas JSC was defined as 92.25 USD per 1000 m³ and the purchasing price for filling natural gas losses in the network – 185 USD per 1000 m³ excluding VAT (the exchange rate of GEL to USD was considered as 1 USD = 2.66 GEL).

Based on the above-mentioned, the Commission defined the regulated cost base of SakOrgGas JSC which according to the regulated principles envisaged by the tariff methodology was allocated on supply and distribution activities. Accordingly, the natural gas supply tariff was set for SakOrgGas JSC as 25.039 Tetri/m³, the distribution-wheeling tariff - 21.395 Tetri/m³ and the consumption tariff - 48.304 Tetri/m³ excluding VAT, which was approved under the Commission's Resolution №34 of December 26, 2018 and is valid from January 1, 2019 including December 31, 2019.

KazTransGas Tbilisi LLC

On July 4, 2018 KazTransGas Tbilisi LLC submitted an application to the Commission requesting to set natural gas supply, distribution, wheeling and consumption tariffs.

Within the framework of tariff application, the investments implemented by KazTransGas Tbilisi LLC in 2017 and 2018 and the net balance value of regulated assets of the utility was defined by December 31, 2018. Audited data of operational expenses of 2017 submitted by the tariff application was considered as a base of operating expenses of KazTransGas Tbilisi LLC for tariff year. The Commission analyzed in detail operational expenses submitted and justified in the tariff application. In addition, the income was adjusted based on the difference between actual and planned data of the natural gas distribution tariff, in particular, the income received from allocated volume, the cost of normative loss, capital expenses and operational expenses were adjusted by the difference between actual and planned Figures of last 5 months of 2017.

Based on the above-mentioned, the Commission defined the regulated cost base of KazTransGas Tbilisi LLC which according to the regulated principles envisaged by the tariff methodology was allocated on supply and distribution activities. In addition, based on the fact that the agreement on purchasing natural gas for household customers for 2019 had not been concluded at the moment of tariff setting, the Commission relied on the Letter №23/9993 of December 20, 2018 of the Ministry of Economy and Sustainable Development of Georgia, according to which for the purpose of providing availability to the new consumption tariffs for the population, the decision was made to decrease supply price of so called social gas. Accordingly, the price of natural gas to be supplied for the household customers in the area of KazTransGas Tbilisi LLC was defined as 103.70 USD per 1000 m³ and the purchasing price for filling natural gas losses in the network – 185 USD per 1000 m³ excluding VAT (the exchange rate of GEL to USD was considered as 1 USD = 2.66 GEL).

Based on the above-mentioned, the natural gas supply tariff was set for KazTransGas Tbilisi LLC as 27.584 Tetri/m³, the distribution-wheeling tariff - 9.147 Tetri/m³ and the consumption tariff - 39.101 Tetri/m³ excluding VAT, which was approved under the Commission's Resolution №32 of December 26, 2018 and is valid from January 1, 2019 including December 31, 2019.

Taba LLC, Varketilairi LLC, Energokavshiri JSC, Sachkheregazi JSC, Wissol Petroleum Georgia JSC

On the basis of tariff applications submitted by Taba LLC on January 15, 2018, by Varketilairi LLC on February 14, 2018, by Energokavshiri JSC on February 27, 2018, by Sachkheregazi JSC on March 7, 2018 and by Wissol Petroleum Georgia JSC on April 17, 2018, the Commission set natural gas supply, distribution, wheeling and consumption tariff tariffs for the first time according to the regulated principles envisaged by the new tariff methodology. In particular, the net balance value of regulated assets of the utilities were defined by December 31, 2017. In addition, audited data of operational expenses of 2016 submitted by the tariff application was considered as a base of operating expenses of utilities for the tariff year. The Commission analyzed in detail operational expenses and capital expenses submitted and justified in tariff application.

According to the agreement on purchasing natural gas submitted by the utilities, the price for purchasing natural gas by household customers was set as 105 USD per 1000 m³ excluding VAT and the purchasing price for filling natural gas losses in the network – 185 USD per 1000 m³ excluding VAT (the exchange rate of GEL to USD was considered as 1 USD = 2.50 GEL based on the Law of Georgia on State Budget of Georgia of 2018).

Based on the above-mentioned, after analysis of financial and technical data submitted by the utilities, the Commission defined regulated cost base which according to the regulated principles envisaged by tariff methodology was allocated on the supply and distribution activities. As a result:

1. the natural gas supply tariff was set for Taba LLC as 26.75 Tetri/m³, the distribution-wheeling tariff - 20.167 Tetri/m³ and the consumption tariff - 48.801 Tetri/m³ excluding VAT, which was approved under the Commission's Resolution №5 of May 30, 2018 and is valid from June 1, 2018 including December 31, 2019;
2. the natural gas supply tariff was set for Varketilairi LLC as 26.75 Tetri/m³, the distribution-wheeling tariff - 12.629 Tetri/m³ and the consumption tariff - 41.263 Tetri/m³ excluding VAT, which was approved under the Commission's Resolution №6 of May 30, 2018 and is valid from June 1, 2018 including December 31, 2019;
3. the natural gas supply tariff was set for Energokavshiri JSC as 26.75 Tetri/m³, the distribution-wheeling tariff - 13.337 Tetri/m³ and the consumption tariff - 41.971 Tetri/m³ excluding VAT, which was approved under the Commission's Resolution №15 of July 25, 2018 and is valid from July 27, 2018 including December 31, 2019;
4. the natural gas supply tariff was set for Sachkheregazi JSC as 26.75 Tetri/m³, the distribution-wheeling tariff - 14.965 Tetri/m³ and the consumption tariff - 44.935 Tetri/m³ excluding VAT, which was approved under the Commission's Resolution №16 of July 25, 2018 and is valid from August 1, 2018 including December 31, 2019;
5. the natural gas supply tariff was set for Wissol Petroleum Georgia JSC as 26.75 Tetri/m³, the distribution-wheeling tariff - 16.301 Tetri/m³ and the consumption tariff - 44.935 Tetri/m³ excluding VAT, which was approved under the Commission's Resolution №17 of July 25, 2018 and is valid from August 1, 2018 including December 31, 2019;

In addition, according to the letter of October 23, 2018, Wissol Petroleum Georgia JSC founded Telavgazi LLC and the natural gas distribution infrastructure under its ownership was granted to Telavgazi LLC. Accordingly, Wissol Petroleum Georgia JSC requested to revoke its natural gas distribution license and grant it to Telavgazi LLC. In addition, according to the letter №12/03 of December 17, 2018, Telavgazi LLC requested to apply natural gas tariffs of Wissol Petroleum Georgia JSC for the existing customers on the above-mentioned area. Based on the above, pursuant to the Commission's Resolution №3 of January 31, 2019, the amendments were made to the Commission's Resolution №30 of December 30, 2005 on Natural Gas tariffs, according to which natural gas tariffs set for Wissol Petroleum Georgia JSC applied to Telavgazi LLC and therefore, tariffs for customers remained unchanged.

Pursuant to the Commission's Resolution №2 of January 31, 2019, the structural changes were made to the Commission's Resolution №30 of December 30, 2005 on Natural Gas Tariffs. In particular, according to the Decree №1283 of Government of Georgia of June 23, 2017, the natural gas distribution network located in Tsalka has been transferred to Socar Georgia Gas LLC. By the Commission's Resolutions №67/27 and №67/28, the natural gas license of Tsalkagazi LLC have been revoked and the license area of Socar Georgia Gas LLC was expanded by area of Tsalkagazi LLC. Accordingly, Tsalkagazi LLC was excluded from the resolution and natural gas tariffs set for Socar Georgia Gas LLC applied to the customers of its area.

Arzu-Gaz LLC

By the letter of April 13, 2018, the director of the utility requested to revoke the natural gas distribution license granted in the name of Arzu-Gaz LLC and accordingly, the Commission started public

administrative proceedings for issuing individual administrative legal act. By letter №23 of December 27, 2018, the director of Arzu-Gaz LLC again addressed to the Commission with a request to stop revocation procedures of license. In addition, by letter №24 of December 27, 2018, the director of Arzu-Gaz LLC submitted tariff application to the Commission requesting to set natural gas supply, distribution, wheeling and consumption tariffs. Due to the fact that tariffs of Arzu-Gaz LLC were valid including December 31, 2018, the Commission started tariff setting procedures in an urgent manner pursuant to the current legislation.

The net balance value of regulated assets of the utility was defined by December 31, 2018. In addition, audited data of operational expenses of 2017 submitted by the tariff application was considered as a base of operating expenses of the utility for the tariff year.

Based on the above-mentioned, the Commission defined the regulated cost base of the utility which according to the regulated principles envisaged by tariff methodology was allocated on supply and distribution activities. In addition, according to the agreement on purchasing natural gas submitted by the utility, the price for purchasing natural gas by household customers was set as 105 USD per 1000 m³ excluding VAT and the purchasing price for filling natural gas losses in the network – 185 USD per 1000 m³ excluding (the exchange rate of GEL to USD was considered as 1 USD = 2.66 GEL). The natural gas supply tariff was set for Arzu-Gaz LLC as 28.43 Tetri/m³, the distribution-wheeling tariff - 16.625 Tetri/m³ and the consumption tariff - 46.925 Tetri/m³ excluding VAT, which was approved under the Commission’s Resolution №4 of January 31, 2019 and is valid from January 1, 2019 including December 31, 2019

The final consumption tariffs set for the abovementioned licensees’ area are illustrated on Figure 2.20 by separate components.

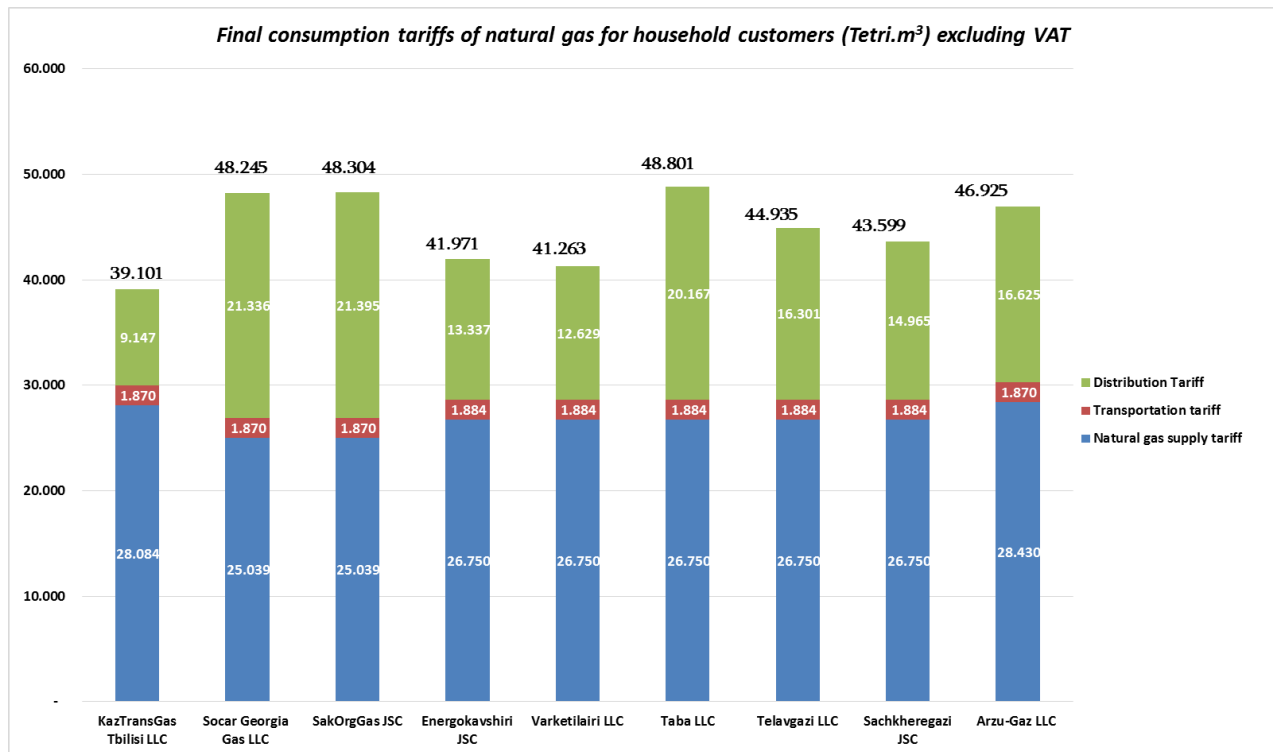


Figure 2.20. Final consumption tariffs of natural gas for household customers (Tetri.m³) excluding VAT

2.3.4. Analysis of Investment Project Implementation

According to the unaudited information provided by the 5 largest companies in the natural gas sector, the planned investment for 2017 amounted 91,136,270 GEL and actual performance was 100,512,853 GEL (Figure 2.21).

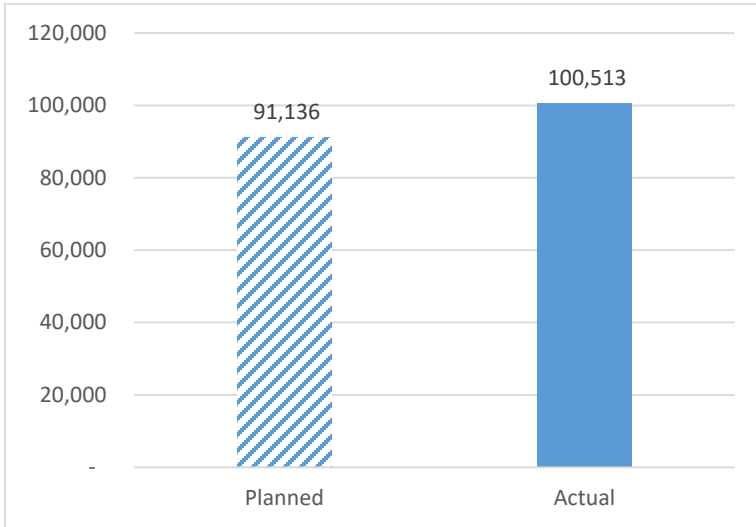


Figure 2.21 Investment in natural gas sector (1000 GEL)

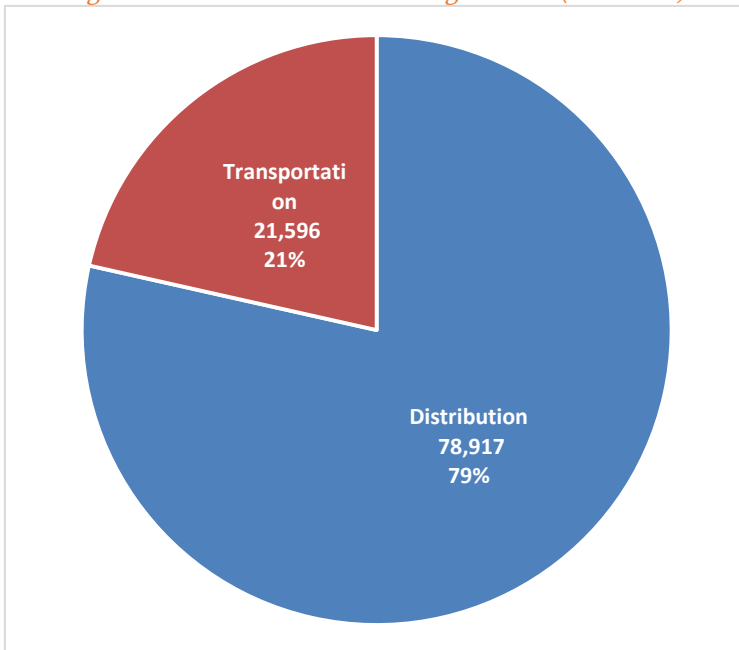


Figure 2.22 Investment in natural gas sector (1000 GEL)

Among them, for the purposes of construction and rehabilitation of the natural gas transportation main pipelines, the investments were made by Georgian Oil and Gas Corporation JSC and Georgian Gas Transportation Company LLC, and for the purposes of construction and rehabilitation of natural gas distribution network and fulfillment of licensing condition the significant investments were made by KazTransGas Tbilisi LLC, Socar Georgia Gas LLC and SakOrgGas JSC. The actual investments made by the above-mentioned licensees according to their activities are illustrated on Figure 2.22.

2.3.4.1. Natural Gas Transportation

The amount of planned investments in 2018 for high pressure transportation main gas pipelines was 31,096,370 GEL, however, actual performance amounted 21,595,653 GEL, from which 83,37% (18,004,423 GEL) was financed by the Georgian Oil and Gas Corporation LLC and 16,63% (3,591,230 GEL) – by Georgian Gas Transportation Company LLC.

The above-mentioned investments were mainly used for the construction and rehabilitation of main gas pipelines (18,748,027 GEL). In particular:

1. New main gas pipeline TIGA Red Bridge – Gardabani was constructed. Total cost of construction amounted 12,254,277 GEL;
2. 5km part of D300 mm Akhalkalaki branch of Red Bridge-Tsalka-Alastani gas pipeline was replaced. Total cost of construction amounted 1,279,485 GEL;
3. Construction of aerial crossing of 1200 mm North Caucasus-South Caucasus gas pipeline on the river Kuro. Expenses incurred in 2018 amounted 2,978,100 GEL.

In the reporting year, local rehabilitation works were carried out (2,435,590 GEL), means of metering were installed, fixed assets for the office, special and communication equipment were purchased.

2.3.4.2 Natural Gas Distribution Activity

In 2018 the volume of planned investments in natural gas distribution sector accounted for 60,039,900 GEL, including Socar Georgia Gas LLC – 32,500,000 GEL, SakOrgGas JSC – 12,000,000 GEL and KazTransGas Tbilisi LLC - 15,539,900 GEL. The actual investments amounted 78,917,200 GEL, including 70,836,800 GEL – with own funds and 8,000,400 GEL – with the third party (customer) financing.

In 2018 the significant part of actual investments - 69.24% i.e. 54,646,000 GEL were made by Socar Georgia Gas LLC in the distribution sector, which constructed and put into operation 402 km natural gas distribution network in the reporting year ensuring the gasification of 5,259 new potential subscribers. In the same year, the utility purchased natural gas pipelines from the state and paid 21,302,000 GEL. In addition, 50,120 new subscribers were connected to the network.

In 2018, SakOrgGas JSC made investments only with own funds and amounted 11,663,000 GEL. Therefore, 12,791 km new gas pipelines were constructed by the company in the different regions in the reporting year. The existing network was rehabilitated and 16,745 new subscribers were connected to the distribution network.

As for KazTransGas Tbilisi LLC, despite the fact that the company is under special management, it carries on investing for the purpose of fulfilling licensing activities. In 2018, the actual investments by KazTransGas Tbilisi LLC amounted 12,608,200 GEL, including 4,527,800 GEL – with own funds and 8,080,400 GEL - with the third party financing. Investments were made for construction and rehabilitation of gas pipelines, purchasing machinery and equipment, transport facilities, office equipment, intangible assets, gasification of new customers, moving the meters outside the customers' territories and etc. As a result, actual loss of natural gas in the network reduced to 8.26% (normative loss set by the Commission is 9.04%). For operational management of natural gas pressure in the natural gas system and also for providing the city with uninterrupted and stable natural gas supply, the dispatch system was optimized and improved. All groups of technical monitoring were equipped with tablets and GPS modems by means of which information on detected accidents is reflected on electrical control panel of dispatch center which enables to carry out works for elimination of the accidents in a timely manner.

The investments in the distribution network made by companies are shown on Figure 2.23.

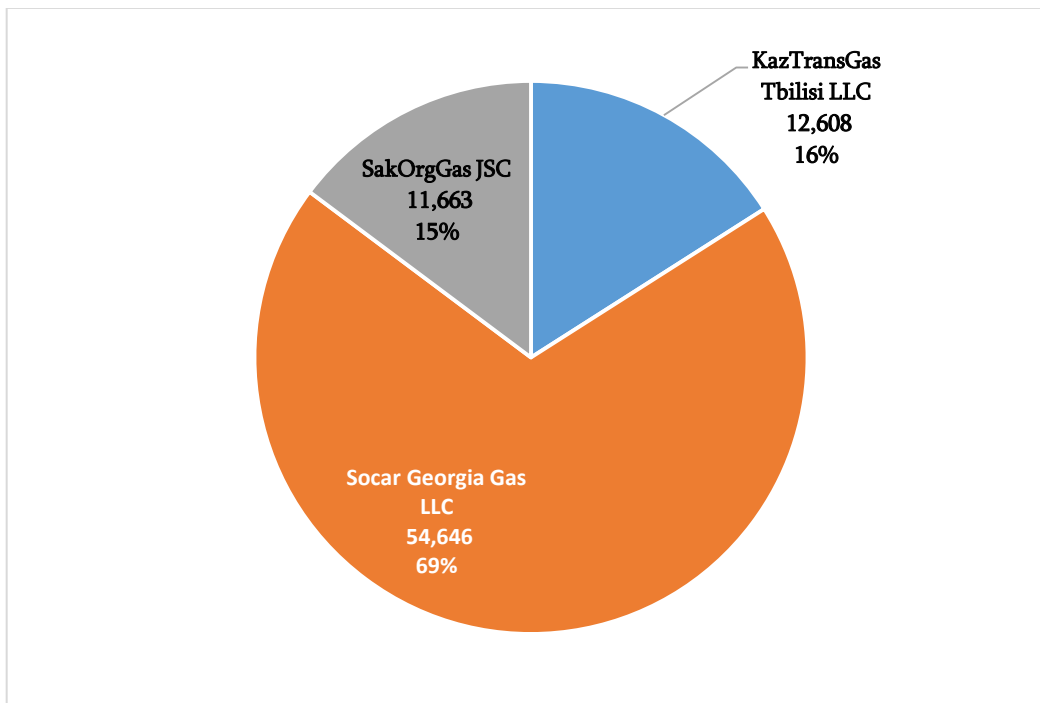


Figure 2.23. Investments in natural gas distribution network by companies (1000 GEL)

2.3.5. Comparative analysis of tariffs

The Table 2.4 and Figure 2.24 represent the natural gas household tariffs in different countries by 2nd quarter of 201.

Country	Household Tariffs (Tetri/m ³)
Azerbaijan	19.456
Russia	22.534
Georgia	52.857
Ukraine	71.489
Armenia	73.759
Turkey	73.883
Moldova	86.881
Romania	109.799
Bosnia and Herzegovina	111.509
Serbia	114.588
Hungary	122.455

Croatia	125.875
Bulgaria	129.638
Latvia	131.690
Lithuania	136.479
Estonia	137.163
North Macedonia	139.215
Luxemburg	140.584
Poland	144.688
Slovakia	146.056
United Kingdom	158.028
Greece	181.972
Belgium	183.340
Slovenia	187.103
Czech Republic	196.680
Germany	207.968
Ireland	216.177
Spain	227.465
France	227.465
Austria	228.833
Italy	244.225
Portugal	259.618
Netherlands	278.773
Denmark	307.163
Sweden	386.519

Table 2.4. Natural gas household tariffs in European countries (Tetri/m³)

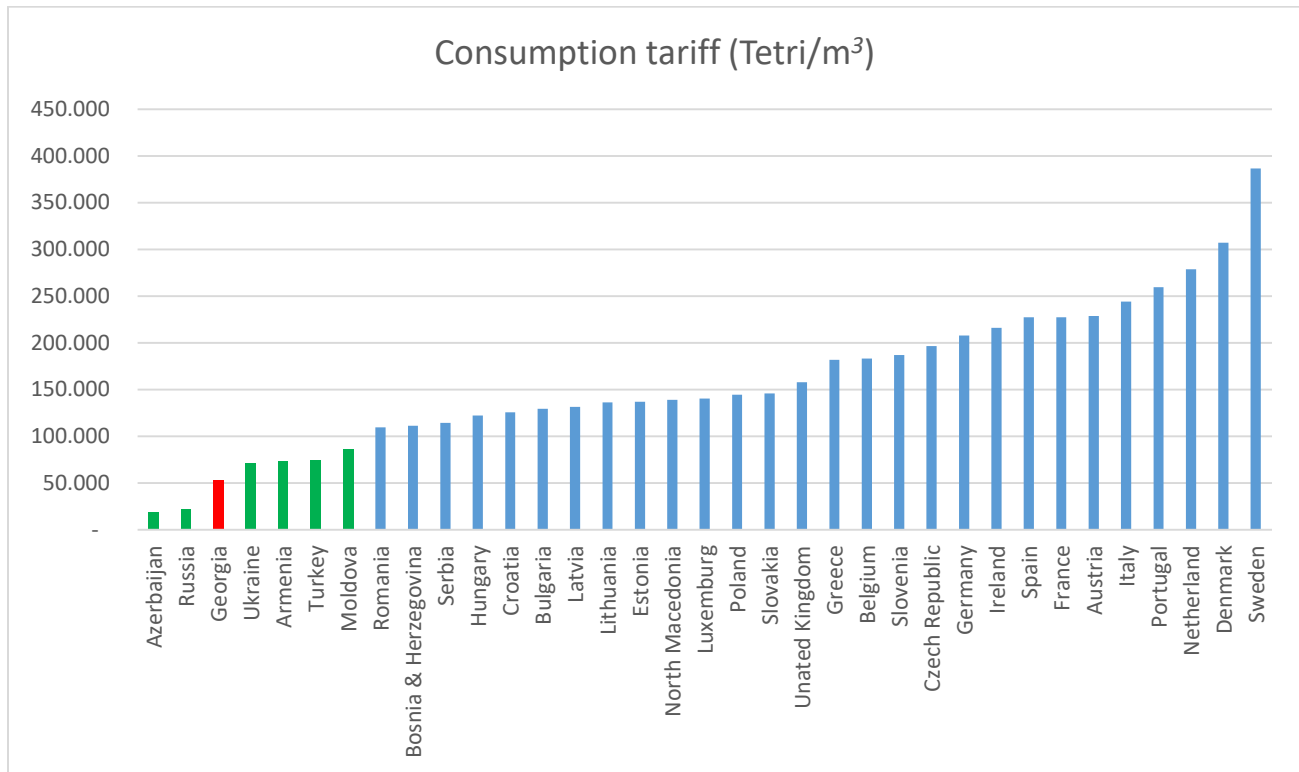


Figure 2.24. Natural gas household tariffs in different countries of Europe (Tetri.m³)

Figure illustrates that Georgia has one of the lowest consumption tariffs among European and Eastern Partnership countries. Russia and Azerbaijan are exceptions which have their own natural gas resources.

3. Water Supply Sector

3.1. Regulatory Framework

According to the amendments made to the Law of Georgia on Electricity and Natural Gas on November 20, 2007, regulation of water supply sector falls within the competence of the Commission. Based on the above-mentioned primary legal act, the Commission developed number of secondary legal acts in order to regulate water supply sector. Water Supply sector is regulated by the following primary and secondary legal acts:

- Law of Georgia on Electricity and Natural Gas;
- The Commission’s Resolution №32 of November 26, 2008 “On Approving Drinking Water Supply and Consumption Rules”;
- The Commission’s Resolution №21 of August 10, 2017 “On Approving Water Supply Tariff Calculation Methodology”;
- The Commission’s Resolution №23 of September 18, 2008 “On Approving the Rules for Licensing and Activity Control in the Electricity, Natural Gas and Water Supply Sectors”;
- The Commission’s Resolution №13 of July 25, 2016 “On Approving the Rules of Commercial Service Quality”.

3.2. General Overview of the Sector

Based on the data of December 31, 2018, 9 licensees have operated in the water supply sector of Georgia.

According to the data provided by the National Statistics Office of Georgia, population of Georgia constitutes 3,729,600 by January 1, 2018, 55.8% of the population (2,081,663 persons) is supplied with drinking water by water supply licensees, whereas 44.2% (1,647,937 persons) is supplied by the local self-governing units. Total number of the subscribers has been increased by 1.8% compared to the last year data (see table 3.1).

Name of the Licensee	Ownership	Number of Customers (Subscribers)	
		Household	Non-household
Georgian Water and Power LLC	Private	481,756	30,234
Rustavis Tskali LLC	Private	50,814	2,625
Mtskhets Tskali LLC	Private	2,818	280
Georgian United Water Supply Company LLC	State	301,817	20,058
Batumis Tskali LLC	Municipal	73,688	11,290
Kobuletis Tskali LLC	Municipal	6,282	656
Sachkheris Tskalkanali LLC	Municipal	5,189	520
Marneulis Soptskali LLC	Municipal	8,805	79
Soguri LLC	Private	90	14
Sum	-	931,259	65,756

Table 3.1 General information on the licensees

Out of the licensees operating in water supply sector, 5 companies are under the state or municipal ownership, whereas 4 are under the private ownership. Table 3.1 provides information on the entities owning shares at the licensed companies (see table N3.1).

3.2.1. Licensing

16 water supply licenses have been issued by the Commission. Currently, only 9 licenses carry out water supply activities and 7 licenses have been revoked in 2015-2016 (see table N3.2).

Water supply licenses have been revoked based on the request of license holder as well as due to the non-fulfillment of licensing conditions by the licensees.

3.2.2. Service Coverage Area of the Licensees

Information on the service areas of each licensees according to the territorial units is provided on the Figure 3.1. As it is shown on this Figure, the lowest indicator ($\approx 15\%$) is observed in Guria region where United Water Supply Company of Georgia LLC operates, whereas the highest indicator ($\approx 95\%$) is in Tbilisi where Georgian Water and Power LLC carries out its activities. As per other cities, Rustavis Tskali LLC has the largest coverage area (Rustavi, 98%).

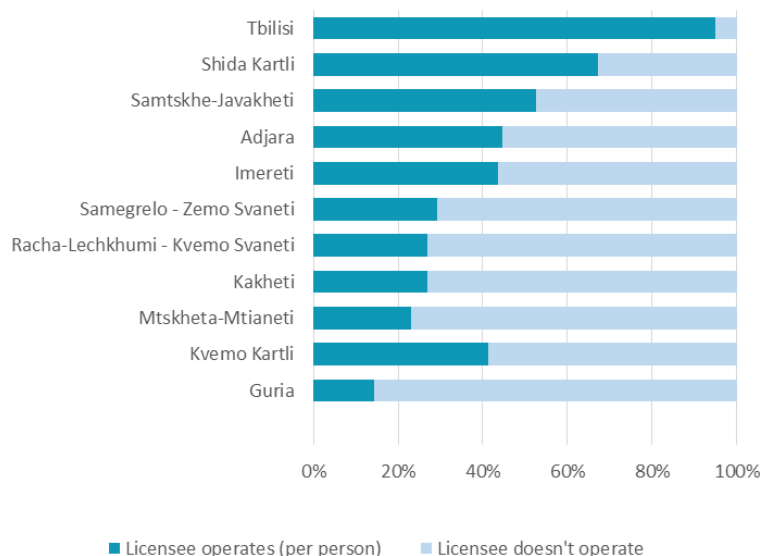


Figure 3.1 Service coverage area of the licensees according to the territorial units (%)

3.2.3. Continuity of Water Supply and Metering

Information on metering according to the licensees is provided on Figure N3.2. As it is shown on this Figure, Soguri LLC and Kobuletis Tskali LLC do not have metered household customers. Among other licensees Georgian Water and Power LLC has the lowest metering indicator ($\approx 30\%$) and Sachkheris Tskalkanali LLC has the highest one ($\approx 99\%$). In 2018 number of metered subscribers of Georgian Water and Power LLC has been increased compared to the last year (by 17.5%). Indicators of uninterrupted water supply for each licensees by December 31, 2018 are provided in table N3.3. As it is shown on the diagram, Marneulis Soptskali LLC has the lowest 24-hour water supply indicator. In general, 6 licensees provide 24-hour water supply, whereas 3 licensees provide drinking water supply according to the schedule.

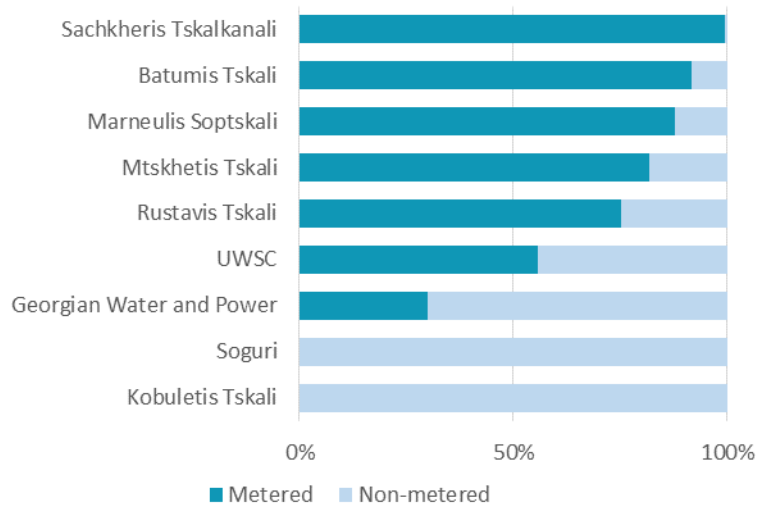


Figure 3.2 Metering level according to the licensees (%)

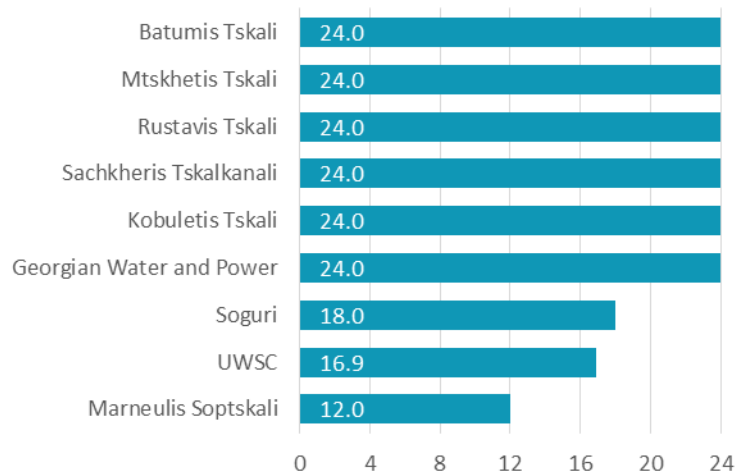
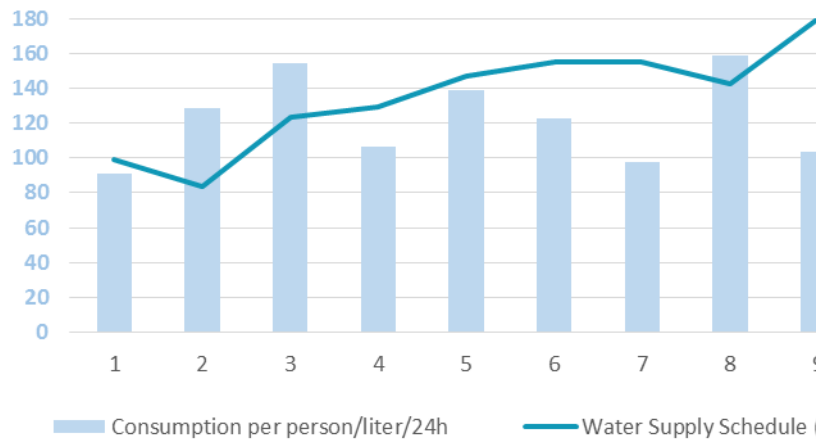


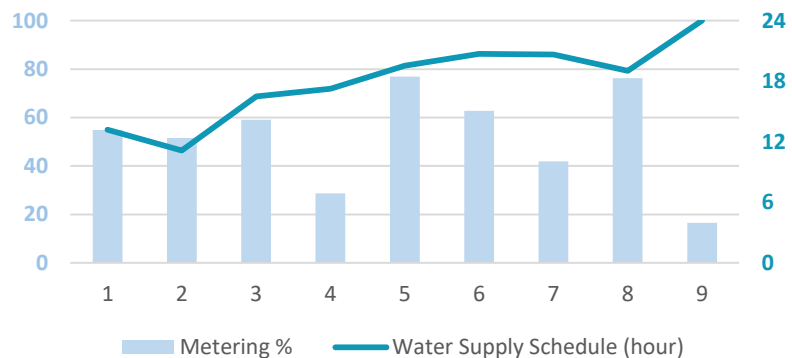
Figure 3.3 Water supply schedule according to the licensees (hour)

In the service area covered by United Water Supply Company of Georgia LLC, average duration of water supply to the customers is 16.90 hours which is higher by 7% compared to the previous years. It should be mentioned that in some cases those customers, that are provided with the drinking water less frequently, consume more water than the customers having 24-hour water supply (see Figure N3.4). For example: average indicator of water supply in Imereti region is 16.5 hours and the volume of consumed water in one day per person constitutes 154 liters, while in Racha-Lechkhumi and Kvemo Svaneti regions having 24-hour water supply, the volume of consumed drinking water in one day per person constitutes 103 liters. It can be said, that frequent interruptions of drinking water supply and the schedule of water supply force the customers to find another sources, including creating of drinking water reservoirs that increase the indicator of drinking water consumption. The existence of non-metered household customers also has very significant impact on the above-mentioned indicators (see Figure N3.5). As this Figure shows, in the regions having the shortest water supply schedule, the metering percentage constitutes 51% in average compared to the number of metered customers. The Commission intensely works with the companies to prioritize the metering and 24-hour water supply issues. Information on the consumption of drinking water per one metered customer is provided



1. Kakheti; 2.Kvemo Kartli; 3.Imereti; 4.Shida Kartli; 5. Samegrelo-Zemo Svaneti; 6. Mtskheta-Mtianeti; 7. Samtskhe-Javakheti; 8. Guria; 9. Racha-Lechkhumi and Zemo Svaneti.

Figure 3.4. Correlation between the schedule of water supply and drinking water supply consumption per person according to the territorial units (UWSG LLC)



1. Kakheti; 2.Kvemo Kartli; 3.Imereti; 4.Shida Kartli; 5. Samegrelo-Zemo Svaneti; 6. Mtskheta-Mtianeti; 7. Samtskhe-Javakheti; 8. Guria; 9. Racha-Lechkhumi and Zemo Svaneti.

Figure 3.5. Correlation between the water supply schedule and level of metering according to the territorial units (UWSG LLC)

on N3.6. As it was mentioned before, Kobuletis Tskali LLC and Soguri LLC do not have metered household customers. Therefore, information on these licensees is not provided. From other licensees the customers of Marneulis Soptskali LLC have consumed the least volume of water (86 liters per person within 24 hours) and Mtskhmetis Tskali LLC has the highest indicator of water consumption (368 liters per person within 24 hours). In the whole country the average volume of drinking water consumption (metered segment) per person within 24 hours constitutes 184 liters.

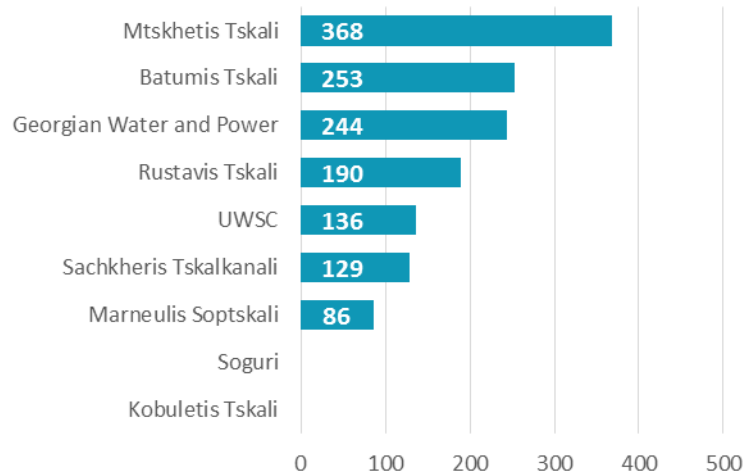


Figure 3.6. Consumption of drinking water per person according to the licensees (liter/per person/within 24 hours)

3.3. Proper Functioning of Water Supply Systems and Reliability

Two main indicators can be used to assess the proper functioning of water supply systems and reliability for each licensees. The first indicator is the frequency of damages of pipelines (accident/per year/per 100 km network) and the volume of losses (volume of non-revenue water), which is the difference between the extracted and sold water. Information on the frequency of damages of pipelines is provided on Figure N3.7. During the reporting year, the highest number of accidents is observed in the following companies: Georgian Water and Power LLC (220 accident per 100 km network) and

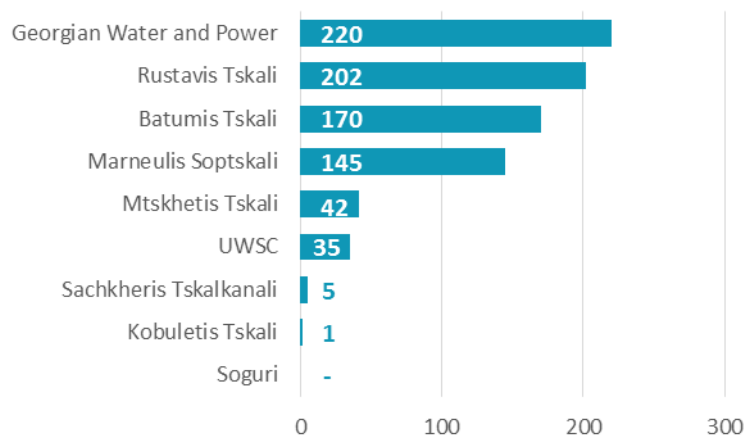
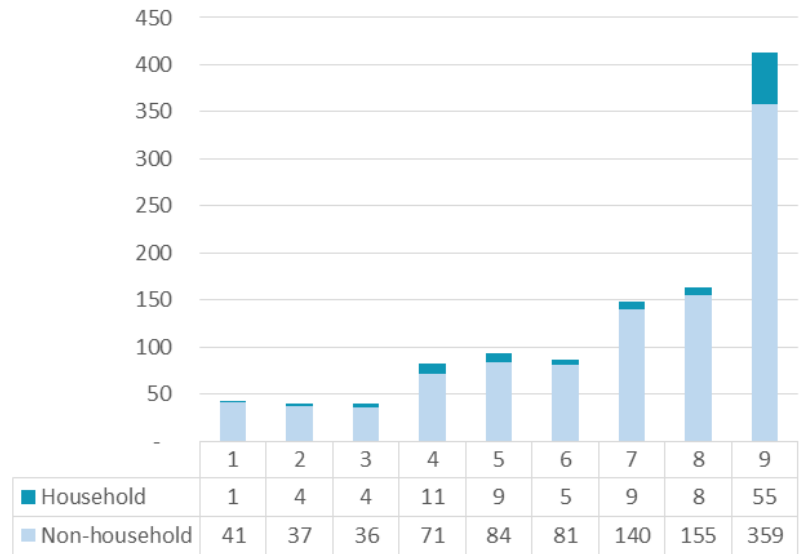


Figure 3.7. Frequency of damages (accidents) of drinking water pipelines according to the licensees (accident/per 100 km network/year)

Rustavis Tskali LLC (202 accident per 100 km network). In addition to the frequency of damages, information on the connected customers for each 1 km network in average is also very important to assess the proper functioning of the systems and reliability (see Figure N3.8).



1. Marneulis Soptskali LLC; 2 Mtskhetis Tskali LLC; 3. Sachkheris Tskalkanali LLC; 4. Soguri LLC; 5. Kobuletis Tskali LLC; 6. UWSG LLC; 7. Georgian Water and Power LLC; 8. Rustavelis Tskali LLC; 9. Batumis Tskali LLC

Figure 3.8. Density of connections of the customers to the water supply system according to the licensees (customer/network km)

In this direction Batumis Tskali LLC has the highest indicator in the household and non-household segments (household segment – 359 and non-household – 55). Information on the volume of drinking water and non-revenue water is provided on N3.9. The highest percentage of correlation between the extracted and non-revenue water is observed in case of Georgian Water and Power LLC and United Water Supply of Georgia LLC. It should be noted that the volume of non-revenue water by its nature is the sum of any type of losses and consumed water (except the volume of water legally sold to the customers). The main reasons beyond the losses are the drinking water losses in the amortized systems, inefficient usage caused by the non-metered customers and usage of drinking water for own purposes.

From the presented information, it can be clearly observed that the companies having lowest indicators of non-revenue water at the same time have lowest indicators of metered customers. According to the information provided on N3.10 during the reporting year 828 mln. cubic meter water were extracted for the purpose of provision to the customers with drinking water.

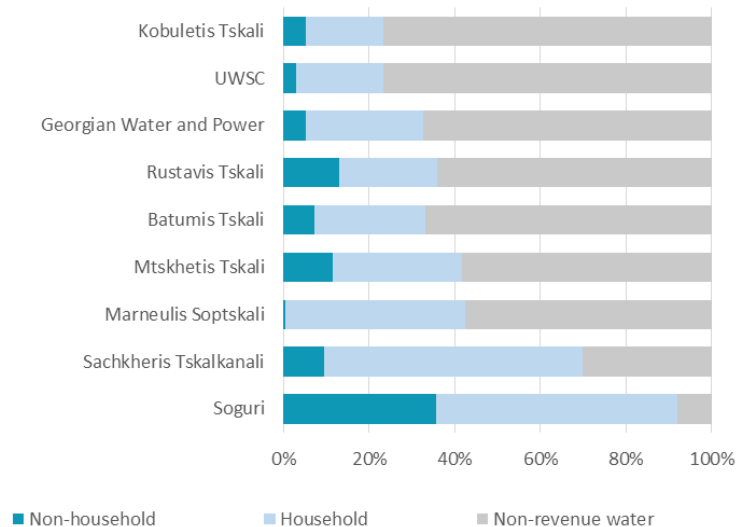


Figure 3.9. Percentage of sold and non-revenue drinking water according to the licensees (%)

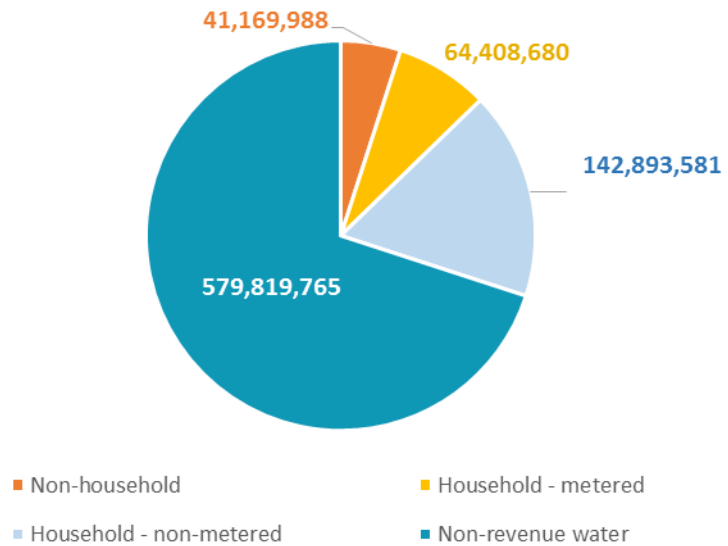


Figure 3.10. Total volume of sold and non-revenue drinking water according to the licensees (cubic meter)

3.4. Pricing and Tariff Regulation

3.4.1. Legal and Methodological Basis

Tariff calculation issues in water supply sector are regulated by the new tariff setting methodology adopted by the Commission’s Resolution №21 of August 10, 2017. This new methodology is based on the internationally recognized best regulation approaches and encompass incentive based regulation for the purpose of optimizing of operational expenditures. According to the new methodology, water supply tariffs are set for the next 3 years and, therefore, foresees the possibility of reflecting forecasted data into tariff, including capital expenditures (annual depreciation and rate of return of regulated asset) for each tariff year for those investments which are approved by the Commission in accordance with the rules and which should be carried out during the tariff year. Tariff setting methodology also envisages the adjustment and consumer price index mechanisms and promotes investment attraction. Fulfillment of investment plans is monitored by the Commission.

According to the amendments to the Law of Georgia on Electricity and Natural Gas made on May 4, 2018, the Commission sets tariffs in 180 day after submitting tariff application. Tariff setting methodology has been changed based on the above-mentioned amendment by the Commission’s Resolution №10 on July 2, 2018 and Article 27 of this methodology states that the tariff application should be submitted no later than July 4 (as it is determined for electricity and natural gas sector).

3.4.2. Current Tariffs

According to the principles determined by the existing tariff methodology, in 2017 new water supply tariffs were set for Georgian Water and Power LLC, Mtskhetsi Tskali LLC and Rustavis Tskali LLC that are valid from January 1, 2018 to December 31, 2020 (see Annex №11). Therefore, in 2018 new water

supply tariffs have not been determined by the Commission.

3.4.3. Analysis of Investment Project Implementation

For the purpose of ensuring 24-hour continuous water supply by water supply licensing companies, rehabilitation of existing network, construction of new network and installation of individual metering, the amount of actual investments of the two largest water supply companies of Georgia - Georgian Water and Power LLC (operating in Tbilisi) and United Water Supply Company of Georgia LLC (operating on the almost whole territory of Georgia except of Adjara AR, Tbilisi, Mtskheta and Rustavi) has been constituted 234,996 GEL for 2018.

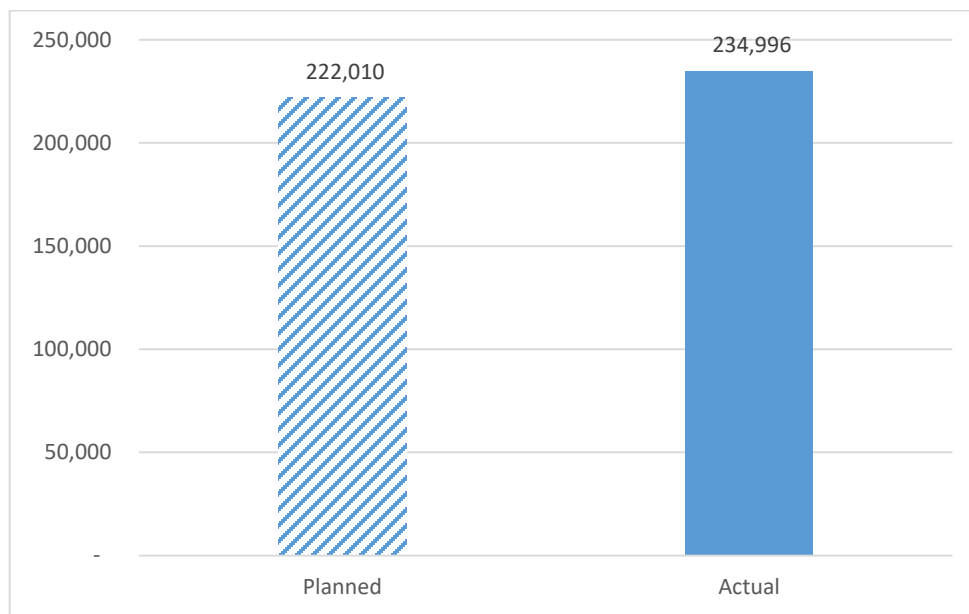


Figure 3.11. Planned and Actual Investments in 2018 (thousand Georgian Lari)

The above-mentioned information including the source of investment and licensees is provided on the Figures 3.12 and 3.13.

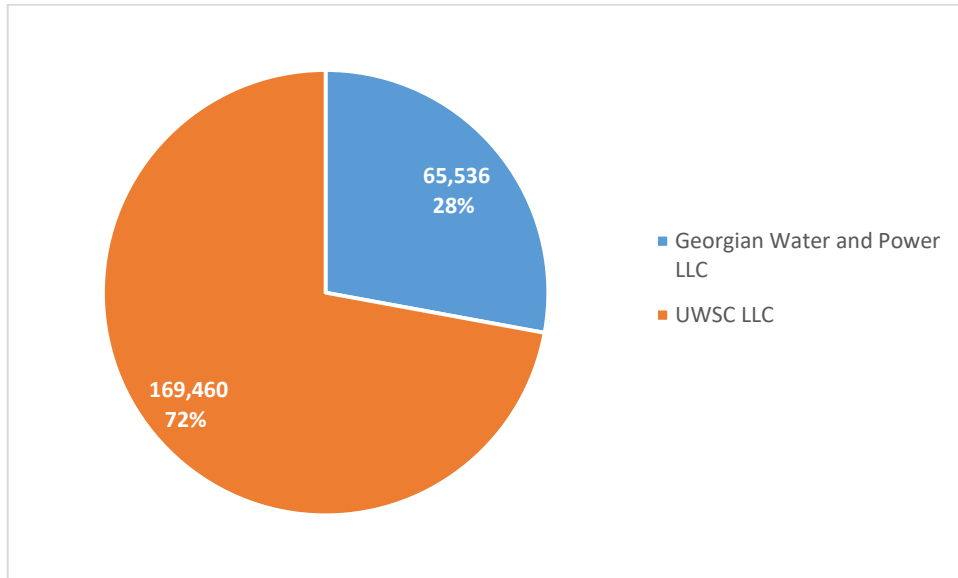


Figure 3.12. Investments carried out by the licensees (thousand Georgian Lari)

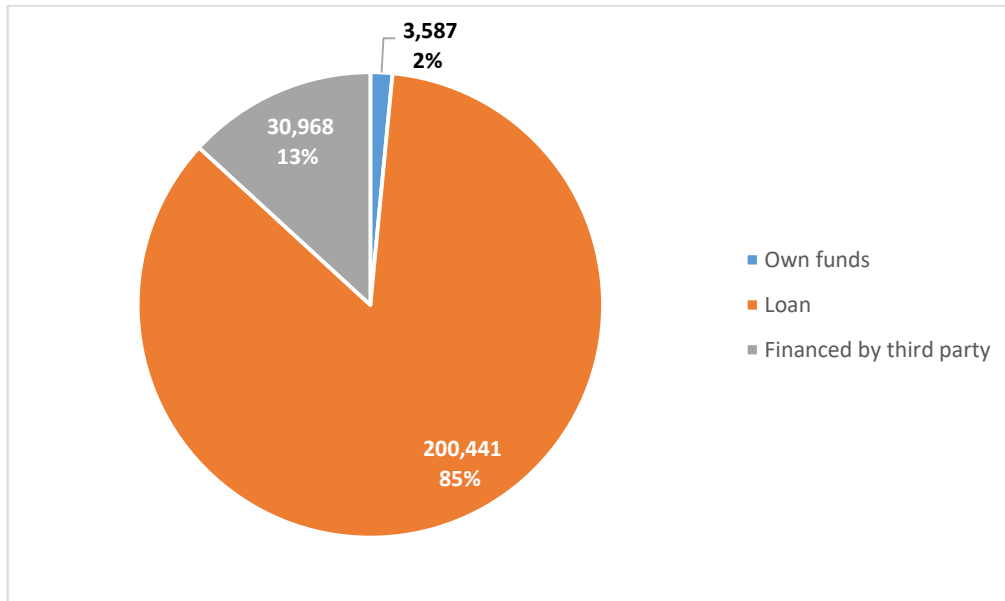


Figure 3.13. Actual investments by the source of funding (thousand Georgian Lari)

*Investment Analysis is based on non-audited data

4. Methodological Activities

For the purposes of improving the existing legislative base in the electricity, natural gas and water supply sectors the following systemic reforms have been carried out:

I. Linking of Public Service Hall LEPL services to the utilities regulated by the Commission

On April 18, 2018, the memorandum of intention on development of different services was concluded among Georgian National Energy and Water Supply Regulatory Commission LEPL, Public Service Hall LEPL, National Agency of Public Registry LEPL, Public Service Development Agency LEPL and Data Exchange Agency LEPL for the purpose of establishing single space and standard of customer service, introducing different services and improving existing ones.

On August 23, 2018, in the framework of the Memorandum, the Supply and Consumption Rules of all three sectors were amended, according to which the customers are available to submit an application to the distribution licensee and water supply licensee at Public Service Hall LEPL and receive service at single point.

By Decision №95/161, November 16, 2018, the application on registration modification of a subscriber was defined as an application category to be submitted at Public Service Hall LEPL.

With technical support of Data Exchange Agency LEPL, the electronic interconnection has been established between the Public Service Hall LEPL and the utilities regulated by the Commission, whereby, from November 21, 2018, the customers may apply for registration modification of a subscriber of Telasi JSC, KazTransGas Tbilisi JSC, Georgian Water and Power LLC, Energo-Pro Georgia JSC, Socar Georgia Gas LLC, SakOrgGaz JSC and United Water Supply Company of Georgia LLC by submitting of an application at any branch of Public Service Hall LEPL. During submission of the application, the customer may double-check the current debt on real estate asset for the purpose of avoiding unforeseen financial problems.

At present, the Commission is working on the inclusion of small scale licensees in the project. In addition, further development of the service and introduction of other applications are planned.

II. Mystery Shopper Project

In November, 2017, the Commission launched a Mystery Shopper Project. The project was carried out by 4 Service G Sales LLC based on the contract concluded with the Commission. Within the framework of the project, the compliance of customer service quality provided by Telasi JSC, KazTransGas Tbilisi JSC and Georgian Water and Power LLC with the service conditions and standards approved by the Commission has been checked.

By Decision №57/1, January 18, 2018, the licensees have been officially informed regarding the violations revealed on the first stage, the recommendations have been provided and deadlines for elimination of violations have been determined. In addition, they have been obliged to report to the Commission on elimination of violations.

On the second stage the identified violations have been rechecked that confirmed elimination of most of them. If earlier the acceptance of applications was carried out only at the head office, rechecking in specific hours revealed that they changed this action and accepted applications at all service centers, without restriction of business hours. In addition, there were cases when the licensee refused to accept the application, which was also corrected and consumers do not face such problems any more.

In relation to the above-mentioned licensees, the project turned out to be quite successful and showed great effect conditioned due to the collection of evidence of violations, the publicity of the project and the interest of company managers to eliminate the identified violations.

Based on this, the Commission expanded the study area and on August 21, 2018 began a new project together with a company that won an electronic tender at Georgian electronic Government Procurement (Ge-GP) system.

In the framework of the new project, the service quality of Telasi JSC, Energo-Pro Georgia JSC, KazTransGas Tbilisi LLC, Socar Georgia Gas LLC, SakOrgGaz JSC, Wissol Petroleum Georgia JSC, Intergaz LLC, Georgian Water and Power LLC, United Water Supply Company of Georgia LLC, Rustavis Tskali LLC and Batumis Tskali LLC is checked. The project envisages checking and rechecking stages and will end on September 1, 2019.

III. Amendment to the Resolution №57 of Government of Georgia of March 24, 2009

Upon an initiative of the Commission and with the active support of the Ministry of Economy and Sustainable Development of Georgia, the Resolution №57 of the Government of Georgia of March 24, 2009 on Rules of Issuing of Construction Permit and the Permitting Requirements has been amended by Resolution №286 of the Government of Georgia of May 31, 2018 that enabled implementation of one stop shop principle when issuing permits for the construction of the first class utility networks. In particular, in the municipality of Tbilisi during the construction of the electricity transmission line, gas pipeline, water supply or sewage lines of the first class, it is not necessary to attach to the application the permission of the administrative authority on the placement of the linear structure on the land sites under the state/municipal authority or public space. In such cases, the municipality of Tbilisi itself ensures obtaining of permits from other administrative bodies, including, if necessary, from administrative bodies responsible for managing and disposing of land sites under state / municipal property. The deadline for the issuance of a permit was set as 20 working days, which includes the time for receiving decisions from other administrative bodies.

IV. Informational meetings

1) On March 30, 2018, with the initiative of the Commission and the organization of the Georgian Employers' Association (GEA), a meeting was held with real estate developers. The purpose of the meeting was to inform representatives of the business sector about the innovations and service standards introduced by the Commission. The representatives of the Commission explained in detail the procedure for connecting a consumer with a single contact: After a person willing to connect applies to the distribution licensee with a “request to connect a new customer to the distribution network” by an application form established by the Commission, the licensee is obliged to ensure that this request is fulfilled with a full cycle service and any kind of participation from the side of the applicant is forbidden.

The meeting focused on the mechanisms for the connection with a single contact and monitoring of the implementation of other standards, in particular, the Electronic Journals and Mystery Shopper Project.

The participants were able to ask the questions regarding the issues of their interests on energy and water supply sectors and receive answers from the Commissioners and GNERC experts.

After the meeting, an information letter was sent to the participants and other interested parties, where the rights and obligations of the customer in the process of connecting a new customer were

described in detail. An information brochure was attached to the letter, where the procedure for connecting a new consumer was outlined.

2) Due to the interest in the reforms related to the getting electricity, the Commission hosted organizations from different countries, in particular, representatives of Moldova, Kuwait and World Bank. The Commission introduced the following reforms implemented in the last period:

- connection of new customers to the electricity distribution network with a single contact;
- service quality control of regulated utilities using electronic journals in real time;
- inspection of service quality by mystery shopper project that is unique in the energy sector;
- registration as a subscriber at a single space, at the moment of registration of property rights in Public Service Halls of Georgia.

The Commission staff provided the representatives of the countries with the detailed description of the projects in an electronic way, in case of implementation of which they can improve indicators of getting electricity.

V. Amendment to the Supply and Consumption Rules

In 2018, the Commission conducted intensive work for improving the basic regulations governing the relationship between the companies and customers and establishing unified approaches. In line with the new challenges in regulatory practice, the Commission amended Supply and Consumption Rules for all sectors.

According to the amendments made in Electricity (Capacity) Supply and Consumption Rules by the Commission's Resolution №8 of June 22, 2018, in Natural Gas Supply and Consumption Rules by the Commission's Resolution №19 of August 16, 2018 and in Drinking Water Supply and Consumption Rules by the Commission's Resolution №18 of August 2, 2018:

1) The licensees were instructed to immediately inform consumers at the moment of individual termination/restoration of supply;

2) Information to be indicated on the bill was clarified;

3) It has become forbidden to terminate supply due to a debt of less than 1 GEL.

4) The licensees were instructed to inform consumers in advance about the use of the right to deposit.

5) The rule of drawing up an electronic act was defined and the criteria for an electronic bill were clarified.

6) The rules for the connection to the network apply to those non-household consumers who have not been supplied with electricity for the last 10 years and who have not applied to restore the supply during this period.

The aforementioned amendments addressed the issues that differ by sectors, as well as successful mechanisms that were not envisaged by the current legislation of all three sectors:

a) in electricity sector:

- rules for calculating fees for capacity increase were clarified for those cases, when increased capacity or requested voltage level switches to another package, in particular:

a) if a real estate property was divided or in its place a multi-flat residential building was developed, the rules, procedures and fees for connecting the new customer applies to such facilities, despite the capacity the original property was connected to;

b) deadlines and fee for organization of metering node defined in Annex №6 and envisaged by the rules shall apply to the cases, when a part of

property is separated from property with 0-10 kW connection capacity, and the owner of the separated property requests 0-10 kW connection capacity; as well as, when the property with 0-10 kW connection capacity is divided and parties agreed to divide the capacity, and existing capacity is enough to provide capacity for old and new properties with at least 10 kW capacity. According to this amendment, the updated template of Application on Division of Subscriber was approved by the Commission's Decision №65/11 of August 16, 2018.

- the obligation to reduce/halve the fee due to violation of the deadlines of capacity increase or voltage level increase was defined (similar regulations already existed in the natural gas and water supply sectors);
- b) In natural gas and water supply sectors: the obligation of a separate indication on the bill was defined for the debt, which arose more than 3 years ago and was not recognized by the customer, and also, there is no agreement between the parties on reallocation of the debt (similar regulations already existed in the electricity sector).
- c) In water supply sector:
 - the issue related to the arrangement of the metering node in case of changing the purpose of consumption by the unmetered household customers has been regulated;
 - upon request for connection to the sewerage network, the area has been specified to which the fee set by the Commission is applied. In particular, pursuant to the amendments the fee is applied to the facility located within 100 m from the water supply network - when the connection to the water supply network is requested and within 100 m from the operating water supply network – when the connection to the sewerage network is requested.
 - it has been specified that upon request of the connection to the both systems in the water supply sector, in case of revealing of deficiencies on one of the requests, the connection will be provided only after submitting the new application.

The amendments were made to the Supply and Consumption Rules applicable in all three sectors under the Commission's Resolution №29 of December 18, 2018. As a result:

- 1) the companies became obliged to send the number of application registration in the Commission's electronic journal to the customers via text message;
- 2) the code "333" was added to the interactive codes by means of which the customer can receive electronic bill;
- 3) depositing has been forbidden for the vulnerable persons who overdue paid the fee for electricity (natural gas, water supply) three or more times within 12 months;
- 4) the customers can submit a bank guarantee instead of deposit.

VI. Service Quality Rules

Pursuant to the Law of Georgia on Electricity and Natural Gas the Commission approved Service Quality Rules which combined the standards of reliability of supply and commercial service quality.

Compliance with the standards is controlled in real time through electronic journals which is a worldwide unique software and was introduced in the Commission in 2016. Upon receiving the information, the licensees upload the data regarding termination of supply, applications of customers and responding to them by the licensee in the Commission's electronic software.

The new Resolution of the Commission envisages the obligation of reflecting even more detailed data regarding the termination of supply and customer applications that enables obtaining more precise information on the service provided by the licensees and its control.

Service Quality Rules envisage:

- **General standards** envisage increase or decrease of the income to be received by the company in proportion to compliance with the standards within set limits (for instance, if the licensee deteriorates the supply recovery indicators, it will decrease the tariff accordingly);
- **Guaranteed standards** envisage the obligation to pay compensation to the customers if the company violated the obligation to duly respond to the customer application (including the application of connection of new customer).

One of the main innovations is putting the continuous compensation into force for violation of deadlines for connection of new customers and capacity increase in all the three sectors (pursuant to the current legislation upon violation of connection deadline for the first time the fee is halved, upon the second violation – reduced to zero, and in the electricity sector, in the event of third and every next violation, the licensee shall pay to the customer the compensation in the amount of 50% of the connection fee). July 1, 2019 was set as the date for entry Service Quality Rules into force apart from the standard set for average duration of termination of supply that becomes effective from January 1, 2020.

Before Service Quality Rules become effective the Rules on Commercial Service Quality approved by the Commission's Resolution №13 of July 25, 2016 and the Instructions of Monitoring of Reliability Indicators of the Electricity Supplied to the Customers by the Electricity Distribution Licensees approved by the Commission's Resolution №9 of June 4, 2009 are in force.

5. Commercial Service Quality

The Commission has been using electronic monitoring system of commercial service quality for already 2 years. The above-mentioned software was introduced in 2017 in order to monitor the achievement of the objectives defined by the Rules on Commercial Service Quality approved by the Commission's Resolution №13 of July 25, 2016 by using modern systems and technologies.

Since November 2017, Commercial Service Quality Control Unit, which is a new structural unit of the Commission, controls in real time the commercial quality of the service provided to the retail customers by the electricity distribution licensees, water supply licensees, natural gas distribution licensees and/or natural gas suppliers, reveals deficiencies and develops recommendations for improving commercial service quality.

As a result of active cooperation with regulated utilities, the monitoring system has been significantly improved in the reporting period. Technical and procedural deficiencies have been eliminated. Commercial Service Quality Control Unit is working on further improvement of the monitoring program, which means systematization of specific nontypical cases.

Service Quality Rules approved by the Commission apply to electricity, natural gas and water supply sectors and establish unified requirements and standards. Commercial service quality standards are the indicators of commercial service quality set by the Commission defining the minimum level of customer service quality which shall be provided by the entity. Electronic monitoring system of commercial service quality monitors the following general and guaranteed standards envisaged by the Resolution:

- **General Standard:**

1. Informing customers about the date and duration of the planned termination – to meet the standards the customers shall be informed about 90% of the total amount of terminations in a timely manner;
2. Restoration of supply for disconnected customers in the case of unplanned termination - to meet the standards, 80% of the total amount of terminations shall be restored in a timely manner;
3. the time for responding to the phone call by the call center operator.

- **Guaranteed Standard:**

1. Restoration of the supply to the customers disconnected due to nonpayment of debt: in case of paying off the debt until 16:00, the deadline shall be (in the high mountainous regions or at the weekend until 14:00) 5 hours after payment, in case of paying off the debt after 16:00 (in the high mountainous regions or at the weekend after 14:00)- until 12:00 of the next day;
2. A justified written response and/or responding to the written applications of the customers – deadline shall be 10 working days;
3. Checking metering devices on spot in response to application of the customers - deadline shall be 10 working days;
4. Registering as a subscriber and provision of supply with requested conditions – deadline 5 working days;
5. Connection of a new customer – deadline is determined according to the package chosen by the customer;

6. Checking technical quality on spot in response to application of the customer – deadline 5 working days;

Customers' applications submitted to the regulated utilities, information on planned and unplanned terminations, information on connection of new customers and recovery of supply for the customers disconnected due to non-payment of debts, are automatically recorded in the Commission's database, for the purpose of effective control over compliance with the above-mentioned standards. Based on the database, data analysis and visualization module of commercial service quality monitoring system ensure processing of information and submitting in a desired manner.

The indicators of meeting the standards of commercial service quality in the years of 2017-2018 are given below according to the sectors (See Figure 5.1-5.8)

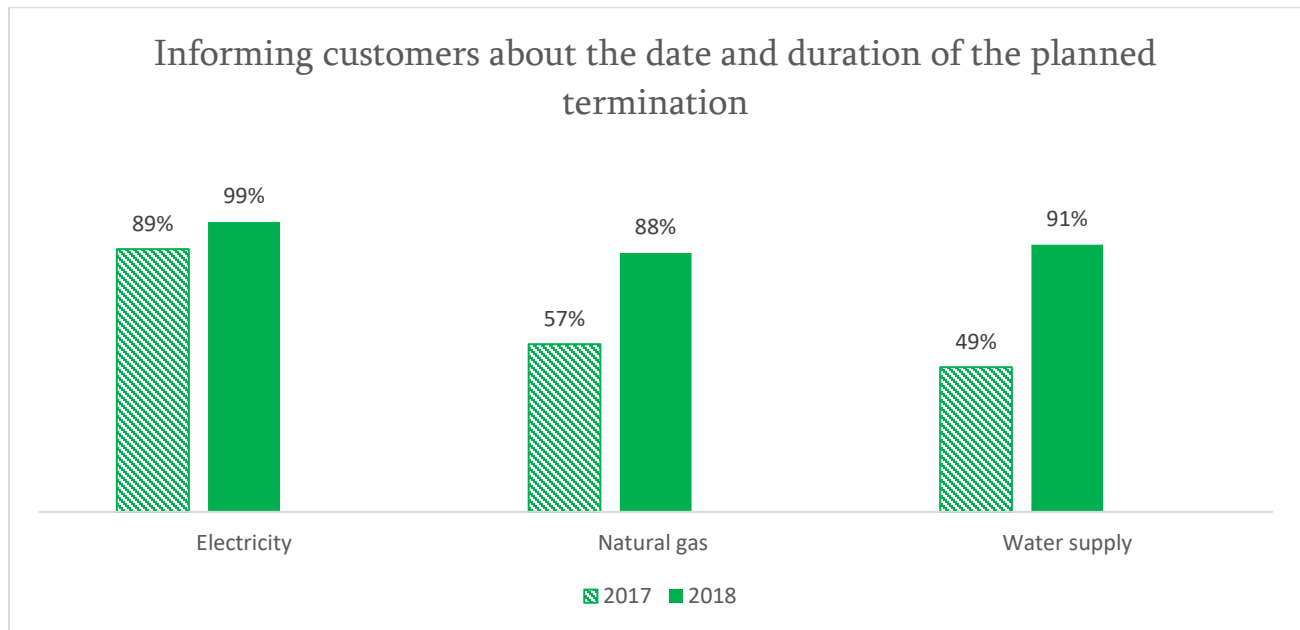


Figure 5.1. Informing customers about the date and duration of the planned termination

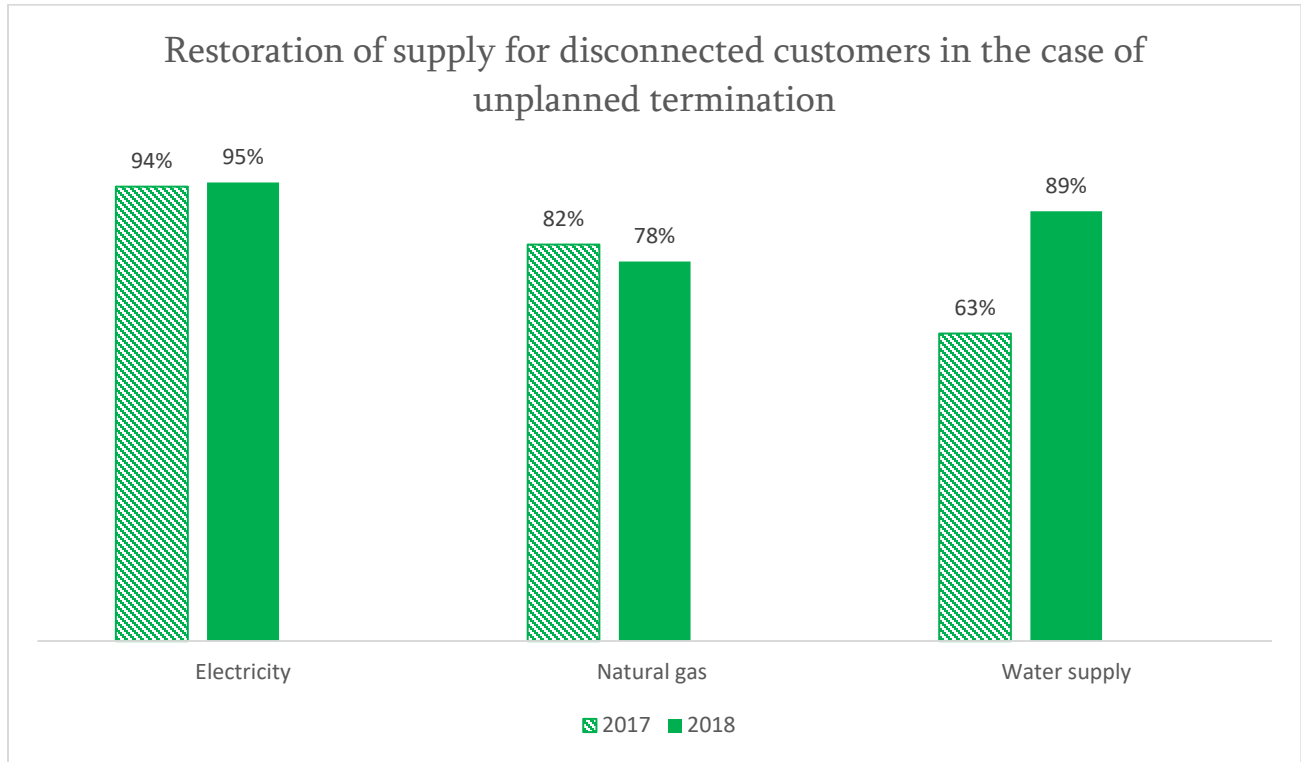


Figure 5.2. Restoration of supply for disconnected customers in the case of unplanned termination

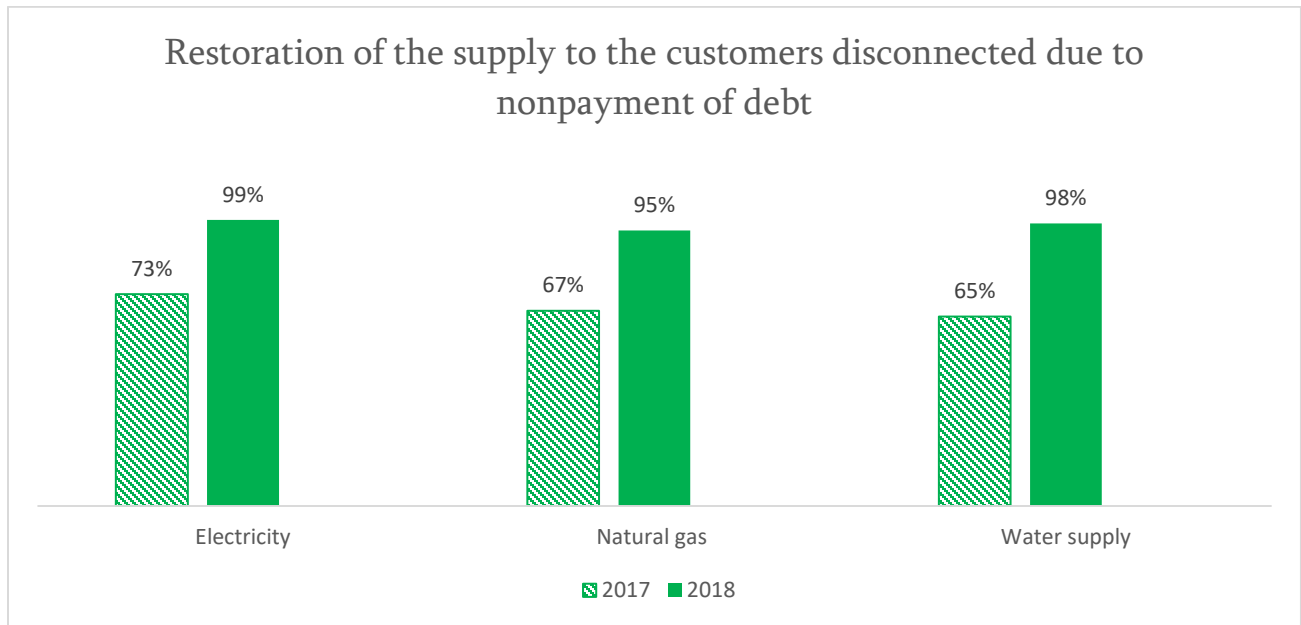


Figure 5.3. Restoration of the supply to the customers disconnected due to nonpayment of debt

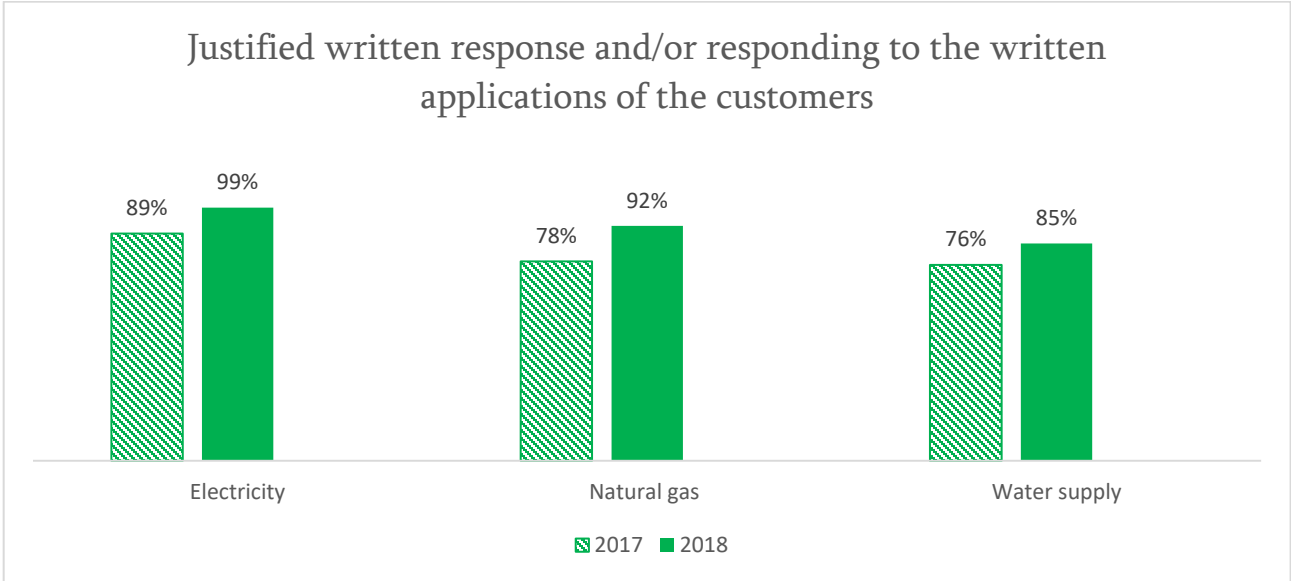


Figure 5.4. Justified written response and/or responding to the written applications of the customers

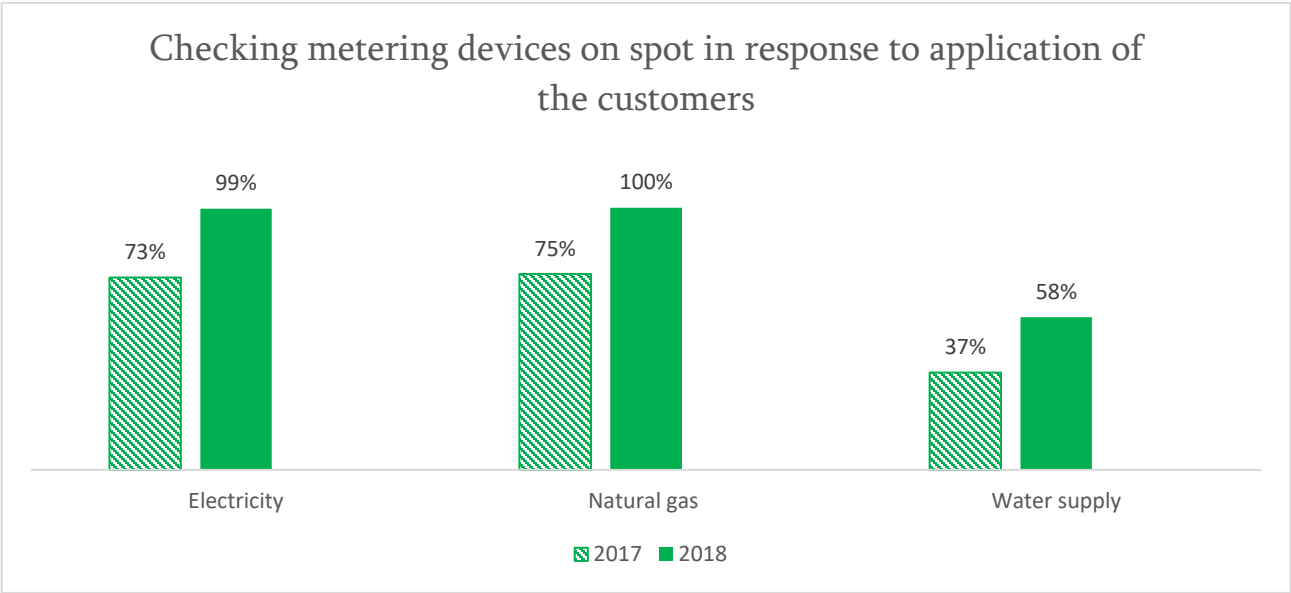


Figure 5.5. Checking metering devices on spot in response to application of the customers



Figure 5.6. Registering as a subscriber

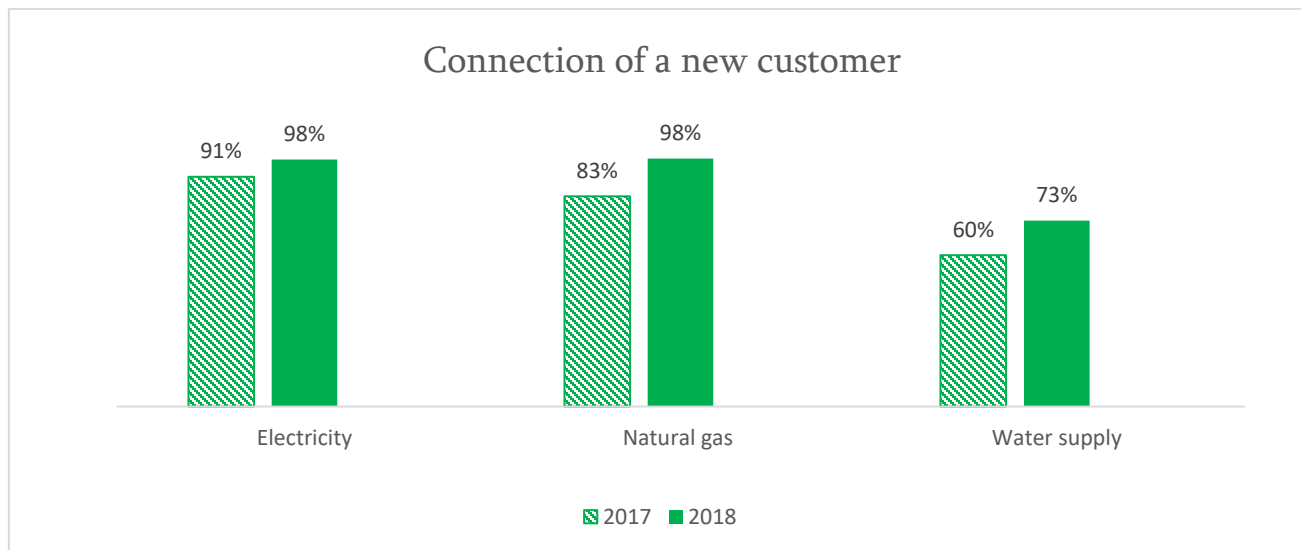


Figure 5.7. Connection of a new customer

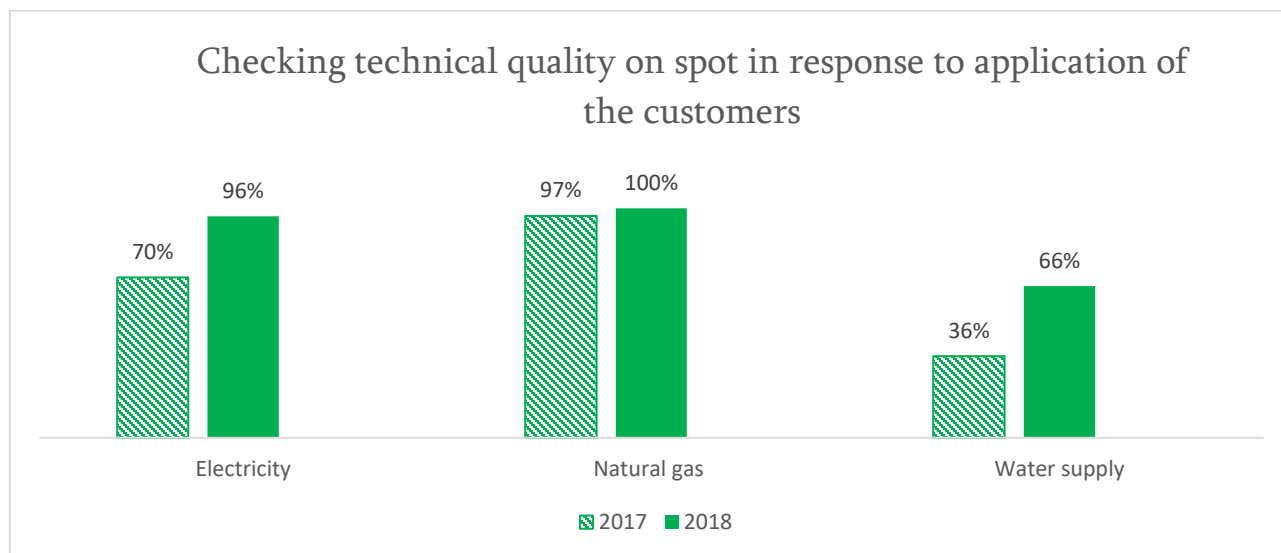


Figure 5.8. Checking technical quality on spot in response to application of the customers

Based on the presented data, it is obvious that service quality has been improved according to all controlling parameters (besides minor exceptions).

In the event of the failure to perform services envisaged by guaranteed standards due to the internal reasons, the utility is obliged to provide specified compensation to the customers for non-performance of services:

- in case of non-compliance with the standards related to the connection of a new customer to the network in electricity, natural gas and water supply sectors in the specified timeframe, the compensation is defined as follows:

In case of missing the deadline for connection to the network (system) defined by the package set by the Commission for the first time – the fee for connection of the new customer is decreased by 50%; in case of missing the deadline for the second time, if the works for the connection to the network (system) are not finished - the connection fee is reduced to zero. Therefore, in case of missing the deadline for connection to the network (system) in the electricity sector for the third and every next time, the licensee is obliged to compensate 50% of the connection fee to the person willing to connect - every time the deadline is missed;

- for the violation of other guaranteed standards the compensation is a one-time action and amounts: 5 GEL – for household customers and 10 GEL – for non-household customers.

The compensation envisaged by the guaranteed standards shall be accrued on the customer's subscriber card as a credit for further settlement. In addition, the compensation shall be reflected in the customer's subscriber card within 15 working days from the violation of guaranteed standard of service.

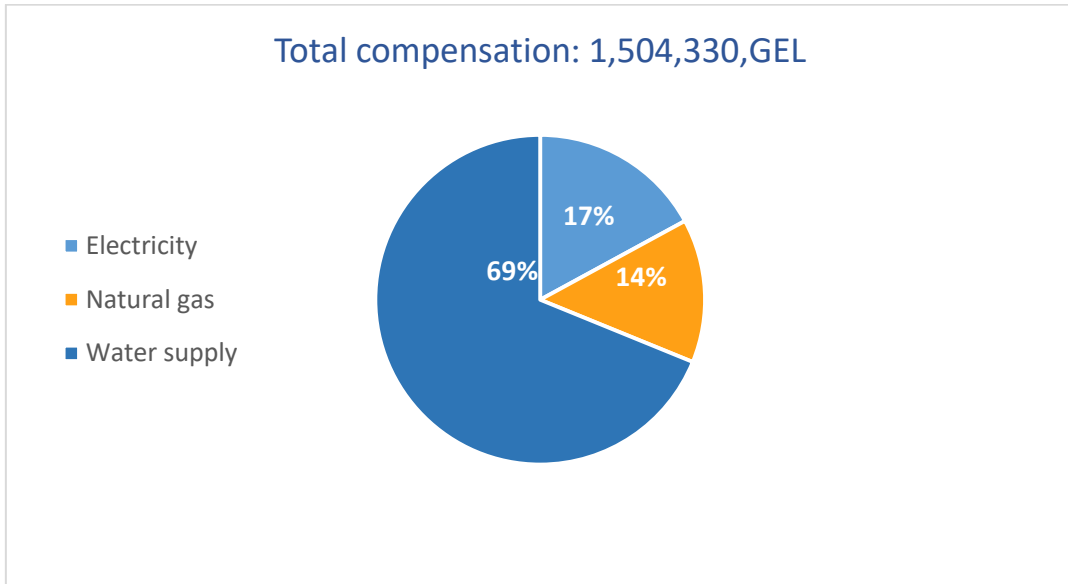


Figure 5.9. Total accrued compensations on guaranteed standards by sectors in 2018

In 2018, due to the violation of guaranteed standards the distribution companies paid 1,504,330 GEL to the customers as compensation (See Figure 5.9). Out of this amount, 1,342,900 GEL was paid due to violation of the standard for connection the new customer to the network and 161,430 GEL for the violation of the rest of the guaranteed standards that is allocated as follows:

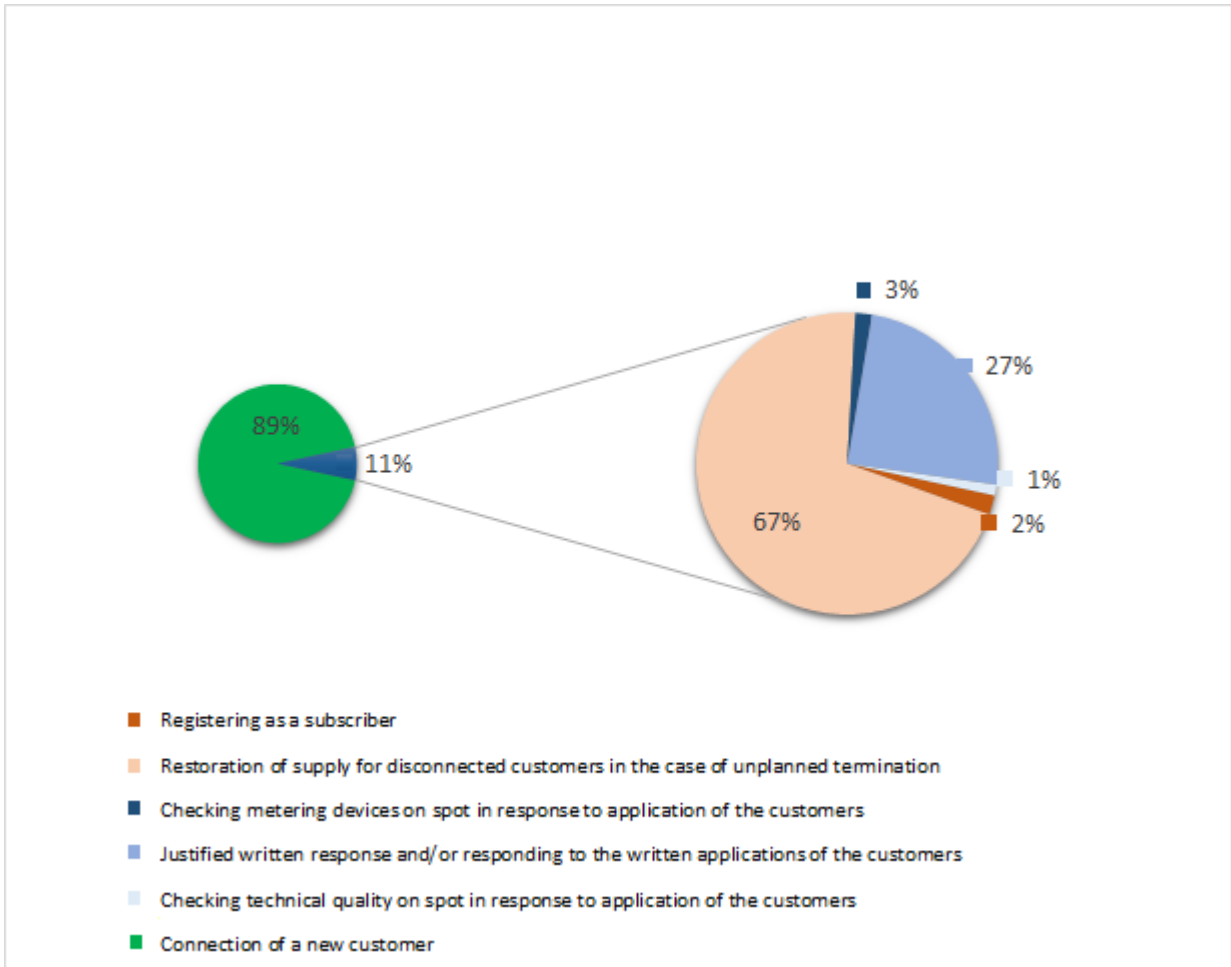


Figure 5.10. Accrued compensations in 2018 according to standards

The amount of the compensation accrued to the customers for non-performance of the guaranteed standards in the defined timeframe in the years of 2017-2018 according to the distribution licensees are highlighted in Table 5.11²⁴.

Utility	Accrued Compensation (GEL)	
	2017	2018
Georgian Water and Power LLC	1,651,320	1,019,115
Telasi JSC	96,080	197,355
Socar Georgia Gas LLC	654,175	181,755
Energo-Pro Georgia JSC	108,085	56,655
KazTransGas Tbilisi JSC	41,180	18,570

²⁴ Note: the amount of the compensation accrued in 2017 highlighted in Table 5.11 differs from the amounts recorded in the Annual Report of 2017 of the Commission. In the 2018 report, the data of 2017 is clarified, since the amount accrued in the calendar year may be adjusted during the following year.

SakOrgGaz JSC	130,450	19,750
	25,850	5,515
Rustavis Tskali LLC		
	630	2,720
Water Supply Company of Georgia LLC		
	0	2,385
Batumis Tskali LLC		
Other little utilities	250	510
Total	2,708,020	1,504,330

Table 5.11. The amount of compensating accrued to the customers

6. Dispute Settlement

6.1. Overview of the Dispute Settlement Regulatory Framework

According to the Article 4 (5) of the Law of Georgia on Electricity and Natural Gas, one of the main functions of the Commission is to settle disputes arising between licensees, small power plants, importers, exporters, suppliers, consumers and market operator within its competence.

These competences are determined by the following legal acts: Code of Administrative Violations of Georgia, Resolution N12 of July 9, 2009 “On Approving Natural Gas Supply and Consumption Rules” approved by the Commission, Resolution N20 of September 18, 2008 “On Approving Electricity (Capacity) Supply and Consumption Rules” approved by the Commission, Resolution N32 of November 26, 2008 “On Approving Drinking Water Supply and Consumption Rules” approved by the Commission and other legal acts.

The Commission is independent in its decision-making process and performs its activities only according to the Georgian legislation. It resolves disputes impartially, in full compliance with the legal requirements. Despite the fact that Public Defender’s office of Consumers’ Interests carries out its functions independently from the Commission, protection of consumers’ interests is still one of most important functions of the Commission. Therefore, during the dispute settlement proceedings the Commission intends to fulfill its functions properly.

Disputes are reviewed on an oral hearing of the Commission’s sessions on the basis of the rules set by the General Administrative Code of Georgia. Oral hearings of the case enable parties to express their positions, present evidences, submit petitions and etc. Such approach enables the Commission to take objective and lawful decision as a result of comprehensive examination of case materials. After reviewing the case, the Commission issues administrative-legal act – decision.

The function of the Commission concerning protection of consumers’ interests in accordance with the legislation does not exclude right of the Commission to defend company’s interests, if the company submits well-grounded arguments which are based on the evidences and are in compliance with the existing legislation.

6.2. Electricity Sector

In electricity sector relations between consumers and companies are regulated by the Commission’s Resolution N20 of September 18, 2008 on Approving Electricity (Capacity) Supply and Consumption Rules.

The substantial part of disputes during reporting period were caused by claims of utilities to reimburse liabilities being out of the period of limitation. The cause of dispute has been non-fulfillment of requirements by the company, particularly, incorrect billings caused by damaging meters, incorrect determination of supervision and charging period, charging when meter was not checked by authorized body and etc. Part of disputes that consider unauthorized connections and charging with tariffs according to incorrect level, has been also relevant throughout reporting period.

The total number of applications/complaints in the electricity sector submitted directly to the Commission during the reporting period has been 680. The applications/complaints were submitted against to the following companies:

- a) Telasi JSC – 506;
- b) Energo-pro Georgia JSC – 174.

As a result of dispute resolution, the Commission made 98 decisions. 64 applications/complaints were satisfied fully, 20 – partially and 14 applications/complaints were not satisfied. In case of those applications/complaints of customers that were not discussed at the public hearings administrative proceedings have been finalized sending letters of response.

Amount cut off from customers' accounts in electricity sector has constituted 732,882.88 GEL.

6.3. Natural Gas Sector

In natural gas sector the relations between consumers and companies are regulated by the Commission's Resolution N12 of July 9, 2009 "On Approving Natural Gas Supply and Consumption Rules". The main reasons of complaints in natural gas sector are the following: non-fulfillment of rules by the companies, specifically, improperly drafted protocols and acts on illegal use (theft) of natural gas, drafting administrative violations protocol in cases when drafting of protocol is not permissible at all, incomplete examination of cases by company itself, incorrect charging consumers with metering costs and improper application of principles set by rules for charging. Consumers' complaints were also caused by wrong qualification of cases as an administrative violation related to the metering points and metering.

The total number of applications/complaints in the natural gas sector submitted directly to the Consumers' Complaints Department at the Commission during the reporting period has been 1296. The applications/complaints were submitted against to the following companies:

- a) Kaztransgaz-Tbilisi LLC –346;
- b) Socar Georgia Gas LLC – 738;
- c) Sakorgaz JSC – 188;
- d) Taba LLC – 8;
- e) Energokavshiri JSC - 1;
- f) Didi Digomi LLC -3;
- g) Varketilairi LLC -1;
- h) Kamari M LLC - 5;
- k) Georgian Gas Transportation Company LLC - 2;
- l) Wissol Petroleum Georgia JSC - 4.

As a result of dispute resolution, the Commission made 852 decisions. 395 applications/complaints were satisfied fully, 330 – partially and 127 applications/complaints were not satisfied.

Amount cut off from consumers' accounts in natural gas sector has constituted 821,527.64 GEL.

6.4. Water Supply Sector

In water supply sector the relations between consumers and companies are regulated by the Commission's Resolution N32 of November 26, 2008 "On Approving Drinking Water Supply and Consumption Rules". The main reasons of complaints in water supply sector are the following: non-

fulfillment of rules and requirements by companies, specifically, complaints for claiming reimbursement of liabilities being out the period of limitation, improper charging of consumers by non-metered water supply acts, also charging household consumers with tariffs set for non-household consumers and charging per inhabitant. Violation of connection timeframe (40-50 working day) was also disputed by the parties.

The total number of applications/complaints in the water supply and sewerage sector submitted directly to the Consumers' Complaints Department at the Commission during the reporting period has been 1210. The applications/complaints were submitted against to the following companies:

- a) Georgian Water and Power LLC – 688;
- b) Georgian United Water Supply Company LLC – 410;
- c) Rustavis Tskali LLC – 92;
- d) Mtskhedis Tskali LLC – 7; ;
- e) Batumis Tskali LLC – 13.

As a result of dispute resolution, the Commission made 297 decisions. 111 applications/complaints were satisfied fully, 142– partially and 44 applications/complaints were not satisfied.

Amount cut off from consumers' accounts in the water supply sector has constituted 935,332.60 GEL.

During reporting period, the Commission has reviewed 3186 case out of which the Commission has taken 1,247 decisions based on the application/complaints submitted to the Consumers' Complaints Department and administrative proceedings related to other complaints/applications has been finalized by the letter of response. Total amount cut off from consumers' accounts has constituted 2,489,743.12 mln. GEL in all regulated sectors.

Taking into account the dispute resolution practice, the Commission is working to improve the corresponding supply and consumption rules in the above-mentioned three sectors which will notably decrease the number of complaints.

7. International Relations

7.1. International Partner Organizations

The Commission pays much attention to relationships with various international organizations of the Energy and water Supply Sectors. Such cooperation assists the Commission in sharing and implementing best practices.

It is notable that Georgia is a member of Energy Community since 2017. Respectively, it is obliged to comply with the EU legislation and approximate national legislation with EU standards. During 2018 the representatives of the Commission have been actively cooperating with the Energy Community and participating in the events organized by the Energy Community Secretariat. In that regards the High Policy Talks organized within EU4Energy governance project in Tbilisi is worth mentioning. The event was attended by the representatives from the Commission, Government, Natural Gas Sector participants and the civil society. A set of issues related to EU Energy Policy and Law have been discussed.

Energy Community Regulatory Board (ECRB) represents one of important institutes of the Energy Community and represents platform for sharing knowledge and experience in the Energy market Regulation field. It is notable that the President of ECRB is the Commissioner Giorgi Pangani. A number of important events have been organized under his presidency out of which trilateral Agreement on cooperation between Council of European Energy Regulators (CEER), Energy Community Regulatory Board and Mediterranean Regulators (MEDREG), first joint meeting of Agency For Cooperation of the Energy Regulators (ACER) and other events are notable.

Cooperation of the Commission with other international organizations such as Energy Regulators Regional Association (ERRA) has also significant importance. The Commission counts a long history of cooperation with ERRA as it is one of its founding members. Staff of the Commission have been actively involved in General Assembly, Investment and Regulation Conference, Chairmen Session, Working Groups, Committee Meetings and Trainings of ERRA. It is worth mentioning that in 2018 Commissioner, Maia Melikidze has been elected as the ERRA presidium member with majority of cotes. The presidium is a representative body of the organization. Hereby, the Commissioner Maia Melikidze was the member of ERRA strategy ad hoc working group. She has participated in the process of preparation new strategy and work plan.

The Commission also actively cooperates with the National Association of Regulatory Utility Commissioners (NARUC). A number of workshops have been held in 2018 organized by NARUC and funded by USAID where representatives of the Commission were also involved. From that viewpoint a meeting within the Black Sea Regional Initiative (BSRI) project funded by USAID and held in Tbilisi was quite important. The meeting was attended by the representatives of the regulatory authorities from the Black Sea region countries. The issues related to integrating regional balance markets, modelling electricity generation expenditure optimization, analysis of the reserve capacity exchange and collection of the information by the regulator in the regional aspect have been discussed during the meeting.

The Commission actively cooperates with Council of European Energy Regulators (CEER) where it has a status of the observer. The representatives of the Commission actively attend General Assembly and working group meetings of CEER.

The Representatives of the Commission also participate in the General Assembly and working group meetings of the Association of the European Water Regulators (WAREG).

7.2. Relationships with the Energy and Water Supply Sector Regulatory Authorities of other Countries

The Commission cooperates with the Energy and Water Supply sector regulatory authorities of other countries. In 2018 the Commission signed memorandum of cooperation with the Water Industry Commission of Scotland (WICS). That memorandum aims at exchange of information on water and wastewater issues between the regulatory authorities. Within the framework of such cooperation the parties will share experience on regulatory policy, monitoring of activities and reporting, tariff setting, review and the assessment of the asset management plans.

In 2018 traineeship of interns from National Energy and Utilities Regulatory Commission of Ukraine (NEURC) took place at the Commission. Within that project the representatives of the Commission have shared experience to the NEURC experts on Uniform System of Accounts (USoA).

7.3. Implemented and ongoing international projects

Important international projects have been implemented in 2018 with the help of various international organizations.

Within the framework of EU4Energy Governance project energy community experts assist the Commission in drafting pieces of the secondary legislation such as draft of the natural gas distribution network rules, drafts on supplier of last resort and universal service supplier rules, rules of the transmission system operator certification procedures, licensing rules and conditions of the electricity activities, congestion management and capacity allocation rules etc. Within the framework of such assistance a number of meetings have been conducted that were attended by the Energy Community experts, and representatives of the Commission and Companies operating in the sector.

In 2018 technical assistance projects have been funded by USAID and organized by NARUC that encompassed discussion of the review, approval and monitoring rules of the 5-year network development plans, also the development of drafts of the natural gas transmission(transportation) network rules. The representatives of the Commission also participated in the workshops related to price comparison tool and social communication. The seminars held on ensuring cyber security in the Black Sea Region and measures to be undertaken in that direction has been also quite important as far as issues related to ensuring cyber security within the region have been discussed, including development of the legislative basis, risk management and formulating basic standards.

USAID Energy project that launched in 2018 shall be also mentioned that aims at assisting Georgia in the process of developing energy market. Within the UEP project the Commission will receive assistance in drafting secondary legislation in accordance with the EU legislation.

A project on energy efficiency has been carried out with the assistance of Ministry of Foreign Affairs of Denmark on “Promoting Energy Efficiency and Sustainable Development in Georgi. Workshops and seminars have been held within that project during 2018.

A EU twinning project on Service quality incentive-based regulation and smart-metering regulatory strategy has been confirmed in 2018. The implementation of the project will take place from 2019.

8. Public Relations

Within the framework of the communication activities of the public relations' department a special attention was paid to the providing information to the public regarding Commission's regulations on protection of consumers' rights and improving quality. The department aims at providing the consumers with the necessary information in the shortest period of time through the help of simple communication facilities. For those purposes the Commission has presented a new logo and communication strategy to the public.

In accordance with the rebranding concept Department has actively started working on the creation of a new website that will be more oriented on the various segment groups. Hereby, update of Facebook, Twitter and Linked in websites takes place systematically.

Media campaign within the framework of rebranding that took place in the regions densely populated with the population not speaking Georgian language, specifically in Samtskhe-Javakheti and Kvemo Kartli. Within such campaign information regarding consumers' rights has been disseminated on Azerbaijani, Armenian and Russian languages both via regional print media also through TV broadcasting.

The department organized preparation of various thematic flyers that aimed at informing population on protection of consumers in the energy and water supply sectors and also issues of connecting new customers to the network.

Communication with media and non-governmental organizations is one of the priority directions among the Commission's activities. Within the Media Club that encompasses representatives of media and non-governmental organization media seminar has been held on the "Long-term tariffs and future energy market perspectives". The Commission has interest in ensuring that media and non-governmental organizations have detailed information related to the Commission's activities. Therefore, simulation models of tariff calculation were presented at the seminar and participants to it directly participated in making decisions for the specific simulation tariffs. Such exercises have encouraged application of the obtained information in practical cases and better analyses of the tariff setting principles.

Attitude of Media towards the Commission in terms of reliability has been significantly improved that is the result of open and transparent communication strategy of the Commission. Since 2014 the Commission closely cooperates with media. In 2018 the tariff issues, new regulations of the Commission and measures for improving service quality have attracted attention of Media. Public relations' department has fully ensured involvement of media in such processes and timely provision of the information. The representatives of the Commission have been actively participating in TV and Radio programs throughout the reporting year. Especially, in the process of discussing key issues or setting tariffs Chair of the Commission and other Commissioners were actively participating in the media programs.

The Commission continues cooperation with the Radio Commersant. The host of the radio program "Professionals" is the Director of the Electricity Department of the Commission, Mr. Nugzar Beridze. Throughout the year issues taking place in the energy and water supply sectors, projects implemented by the Commission and tariff policy has been broadcasted.

Employees of Public Relations' Department have undertaken training courses held by the training center of Justice on topics: "Stress Management", "Time Management", "Media Communication" and "Efficient Communication". Also the work on informing customers on electricity market liberalization has been commenced together with foreign partners.

For the purpose of proper fulfillment of communication aims and objectives Public Relations' Department actively uses social media. It is worth mentioning that in comparison to the previous year

citizens have become more active on official Facebook page of the Commission. The monitoring of consultations carried out by the Commission through social networks identified that claims and complaints of the citizens mainly concerned quality of service. The same trend has been observed at the call center of the Commission. Specifically, out of total 10 108 calls 2686 calls concerned provision of the different types of information, emergency switching, belated informing of citizens, problems of communicating with the companies, belated restoration works of the company.

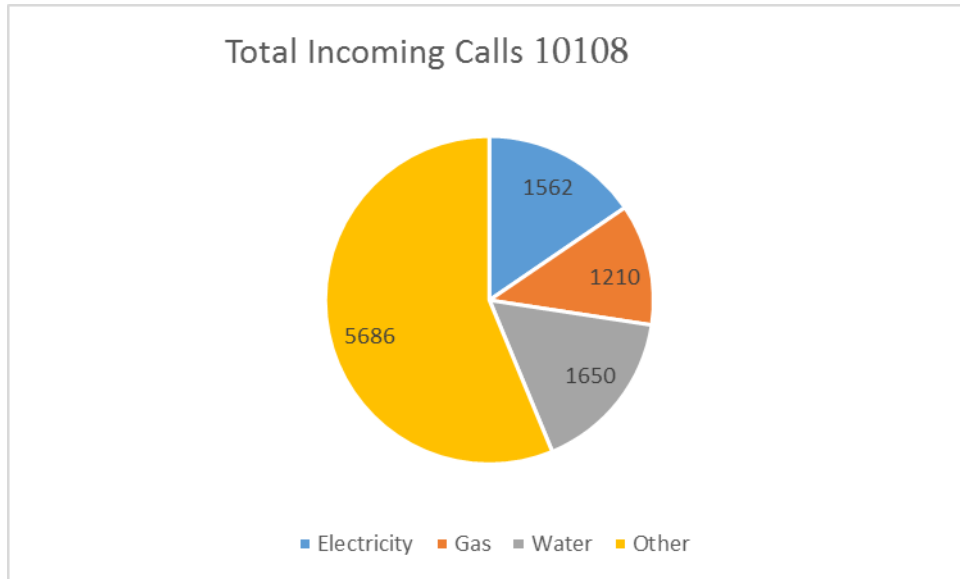


Figure 8.1. Incoming Calls at the Commission hotline

Incoming calls to the call center can be allocated according to sectors in a following way: Electricity sector – 1562, Natural Gas sector 1210, and Water Supply sector 2650 calls (see Figure 8.1).

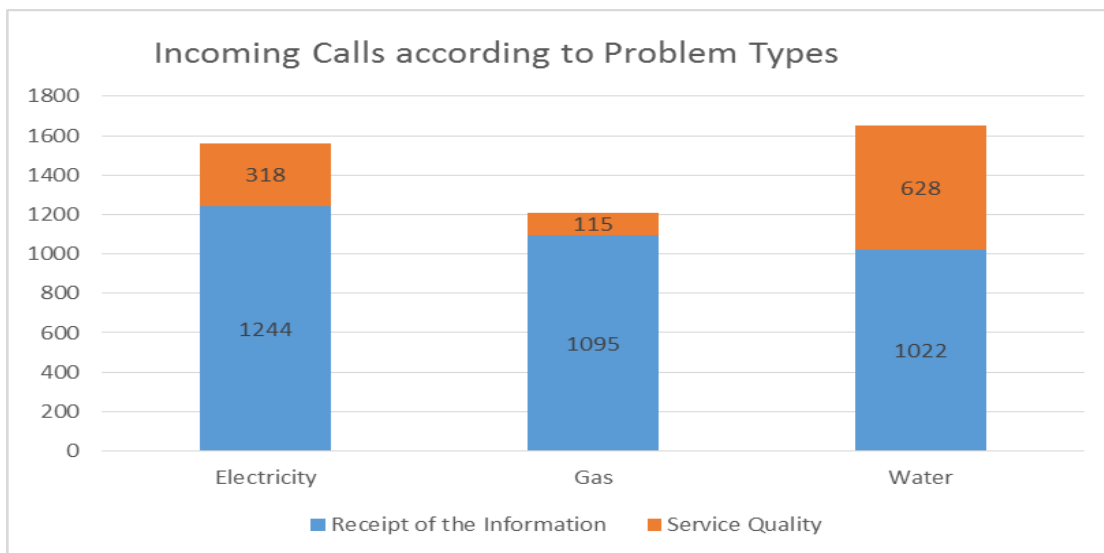


Figure 8.2. Problems of the Customers Communicated through the hotline

9. Publicity of Information

The Commission ensures proactive publication of public information on its website (the Commission's website – www.gnerc.org) according to the Resolution N7 on Approving Rules of Electronically Requestion Public Information kept at the Georgian National Energy and Water Supply Regulatory Commission and its Proactive Publication which is adopted by the Commission on March 28, 2014.

Pursuant to the Article 49 of Chapter III of the General Administrative Code of Georgia, report on public information was prepared and approved by the Commission Decision №82/33 on December 9, 2016 which includes analysis of ensuring freedom of information, availability of public information and fulfilling the requirements of public information issuance according to the Article 40 of this Code and analysis of being in compliance with the timeframe prescribed by this Code.

The above-mentioned document has been sent to the President of Georgia, the Prime-Minister of Georgia, the Parliament of Georgia and has been published in the Legislative Herald of Georgia pursuant to the Article 49 of Chapter III of the General Administrative Code of Georgia,

In 2018 83 written requests were submitted to the Commission from which 62 requests were fully satisfied, 17 requests were partially satisfied and 4 applications were refused. Partially satisfaction or refusal was caused by the absence of requested information at the Commission as well as by confidentiality reasons and existence of relevant legal basis.

With regard to issuance of public information, person responsible for ensuring availability of public information has kept register of letters submitted by e-mail (publicinfo@gnerc.org) or chancellery division on requesting issuance or interpretation of public information. Annual report of the Commission on issuance of public information during 2017-2018 years is published on the Commission's website (www.gnerc.org).

9.1. Public Hearings and Protocol Proceedings of the Commission

In 2018, 116 public hearings were held at the Commission and 40 resolutions and 1990 decisions were adopted. Resolutions and decisions adopted by the Commission are published on the Commission's official website: www.gnerc.org. Proceedings for Public hearings of the Commission are kept electronically by using specialized software.

The Commission fulfills the requirements of the Article 32 of General Administrative Code of Georgia, which concerns publicity of the Commission's public hearings according to which the Commission's hearings are public and any interested person is authorized to attend them, except the cases where the public hearing or its part is closed. During reporting period, the Commission did not make decision on the closure of public hearing.

Before making decision of the Commission, public consultations are held on issuance, modification, revocation, suspension of licenses, setting, adjustment or revocation of tariffs as well as disputes between the consumers and regulated companies or between the regulated companies themselves. Notifications on public hearings are published at the Commission's official website.

In case of request of any interested person, the Commission makes decision on recognizing the submitted information as a commercially confidential information. In 2018 9 decisions were made on the recognition of information as a commercially confidential, including: 4 decisions - on fully recognition, 5 – on partially recognition.

10. Annexes

Annex №1 - List of Licensees in the Electricity Sector

Types of Activities/Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Electricity Generation	12	12	12	13	14	15	18	20	20
Electricity Distribution	3	3	3	3	3	3	3	2*	2
Electricity Transmission	2	2	2	3	3	3*	3*	3**	3**
Electricity Dispatch	1	1	1	1	1	1	1	1	1
Total	18	18	18	20	21	22	25	26	26

* From 1st of September, 2017 Energo-Pro Georgia JSC conducts electricity distribution and supply activities in the licensed area of Kakheti-Energodistribution JSC

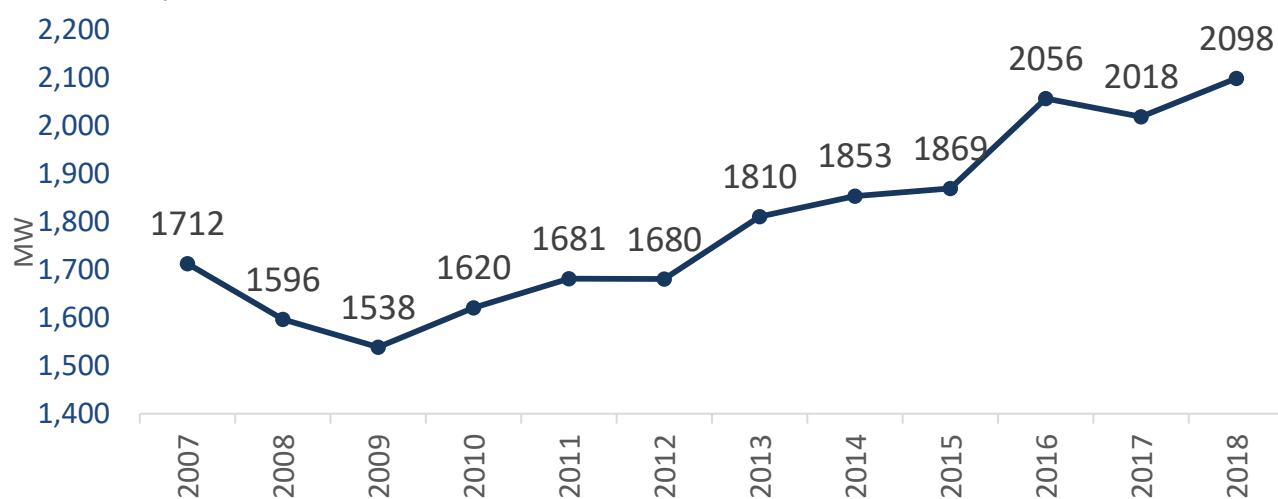
** Preliminary transmission license issued to the Energo-Pro Georgia JSC

Generation		Dispatch
<ul style="list-style-type: none"> • Khrameshi 1 JSC • Khrameshi 2 JSC • Georgian Water and Power LLC (Jinvali HPP) • Vardnili HPP Cascade LLC • Enguri HPP LLC • Eastern Energy Corporation LLC (Khadori HPP) • Mtkvari Energy LLC • Vartsikhe-2005 LLC • Zahesi JSC • G-Power LLC • Energia LLC (Larsi HPP) • Gardabani Thermal Power Plant LLC • Sakartvelo-Urban Energy LLC (Paravani HPP) • Saknakshiri LLC • Darial Energy LLC • Old Energy JSC 	<ul style="list-style-type: none"> • Energo-Pro Georgia - Generation JSC <ul style="list-style-type: none"> – Rioni HPP – Lajanuri HPP – Dzevrula HPP – Atshesi HPP – Gumati HPP Cascade – Shaori HPP – Satskhene HPP – Chitakhevi HPP – Ortachala HPP – Zahesi HPP • Georgian International Energy Corporation LLC (Tbilsresi) • Kartli Wind Power Plant LLC • Adjara Energy – 2007 LLC (Khelvachauri HPP) • Adjaristskali Georgia LLC (Shuakhevi HPP) 	<p>Georgian State Electrosystem JSC</p>
		Transmission
		<ul style="list-style-type: none"> • Sakrusenergo JSC • Energotrans LLC • Georgian State Electrosystem JSC • Energo-Pro Georgia JSC (Preliminary License)
		Distribution
		<ul style="list-style-type: none"> • Telasi JSC • Energo-Pro Georgia JSC

Annex №2 - Number of Electricity Customers in 2011-2018

Customer Classification/Year	2011	2012	2013	2014	2015	2016	2017	2018
Retail Customer	1,522,259	1,581,896	1,623,110	1,664,802	1,653,549	1,688,903	1,753,615	1,767,551
Including: Household	1,446,887	1,499,971	1,529,187	1,566,277	1,556,003	1,562,485	1,641,904	1,661,917
Non-household	75,372	81,925	93,923	98,525	97,546	126,418	111,711	105,634
Direct Customer	9	7	7	5	4	4	2	6
Total	1,522,268	1,581,903	1,623,117	1,664,807	1,653,553	1,688,907	1,753,617	1,767,557

Annex №3 - System Peak Load in 2007- 2018



Annex №4 - Electricity Losses in Distribution Network in 2018

Losses	Distribution Companies			
	Telasi JSC		Energo-Pro Georgia JSC	
Normative (%)	From January 1 to May 1	From May 1 to December 31	From January 1 to May 1	From May 1 to December 31\
Actual (%)	5.27 %	5.85%	9%	9.33%
Actual (mln.kWh)	4.78 %		7.86 %	
Normative (%)	151.36 mln.kWh		476.52 mln.kWh	

Annex №5 – Metering per the Distribution Companies by December 31, 2018

№	Companies	Number of Subscribers in 2018			
		Total	Subscribers having individual meters	Subscribers not having individual meters	Subscribers consuming less than 1 kW ²⁵
1	Telasi JSC	588,177	579,600	0	8,577
2	Energo-Pro Georgia JSC ²⁶	1,212,835	1,208,108	4,652 ²⁷	75

Annex №6 – Ownership of Electricity Sector Participants

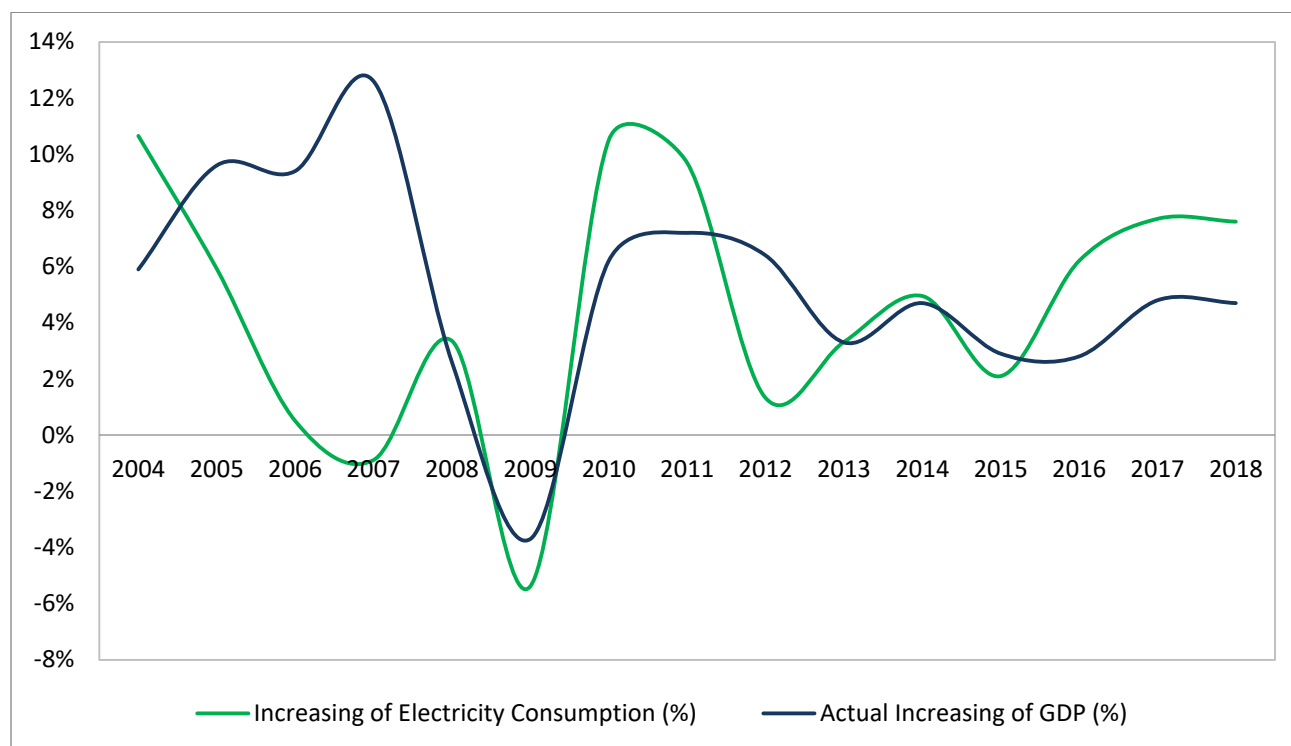
	<i>Private ownership</i>	<i>State ownership</i>	<i>Both</i>
<i>Generation Licensees</i>	18	2	0
<i>Transmission Licensees</i>	0	3	0
<i>Distribution Licensees</i>	1	0	1
<i>Dispatch Licensee</i>	0	1	0

²⁵ Customers consuming less than 1 kW that do not need metering point.

²⁶ Subscribers of Energo-Pro Georgia JSC includes subscribers of Kakheti region

²⁷ Number of subscribers of Energo-Pro Georgia JSC that receive electricity via communal meters.

Annex №7 – Increasing of Electricity Consumption and Actual Increasing of GDP in 2004-2018*



Annex №8 - Current Tariffs in Electricity Sector (without VAT)

Transmission and Dispatch Tariffs (tetri / kWh)

Company	Activity	2018-2020
Georgian State Electrosystem JSC	Dispatch	0.412
	Transmission	1.323
Sakrusenergo JSC	Transmission	0.278
Energotrans LLC	Transmission	0.380

Generation Tariffs of Hydro Power Plants (tetri / kWh)

Company	Generation Facility	2018-2020
Enguri HPP LLC	Enguri HPP	1.818
Vardnili HPP Cascade LLC	Vardnili HPP Cascade	4.002
Georgian Water and Power LLC	Jinvali HPP	2.177
Energo-pro Georgia JSC	Lajanuri HPP	1.679
	Gumati HPP Cascade	2.209
	Dzevrula HPP	1.986
	Rioni HPP	4.060
	Shaori HPP	2.747

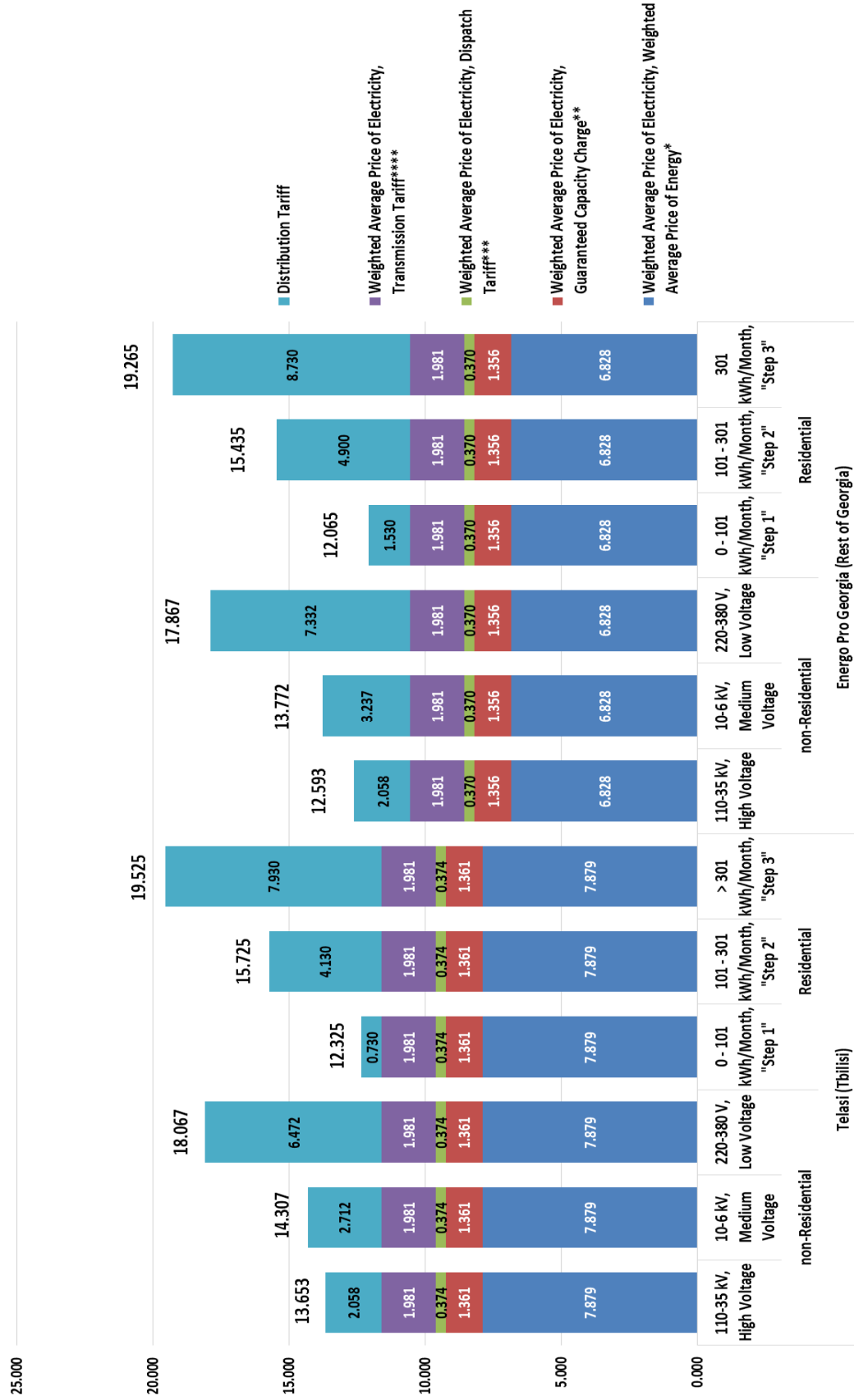
Generation Tariffs of Thermal Power Plants (tetri / kWh)

Company	Generation Facility	2018	2019	Difference
Mtkvari Energy LLC	9 th Unit of Tbilisres	11.512	11.646	0.134
Georgian International Energy Corporation LLC	3 rd and 4 th Units of Tbilisres	11.511	12.762	1.251
G-Power LLC	Gas turbine power plant	9.431	11.067	1.666
Gardabani TPP LLC	Combined cycle of gas turbine	8.012	8.322	0.310

Guaranteed Capacity Fee for Thermal Power Plants (GEL/Day)

Company	Generation Facility	2018	2019	Difference
Mtkvari Energy LLC	9 th Unit of Tbilisres	59,630	77,121	17,491
Georgian International Energy Corporation LLC	3 rd Unit of Tbilisres	18,637	20,006	1,369
Georgian International Energy Corporation LLC	4 th Unit of Tbilisres	20,357	21,811	1,454
G-Power LLC	Gas turbine power plant	44,874	47,720	2,846
Gardabani TPP LLC	Combined cycle of gas turbine	385,893	383,971	(1,922)

Electricity Final Consumption Tariffs for 2018-2020 (Tetri / kWh)



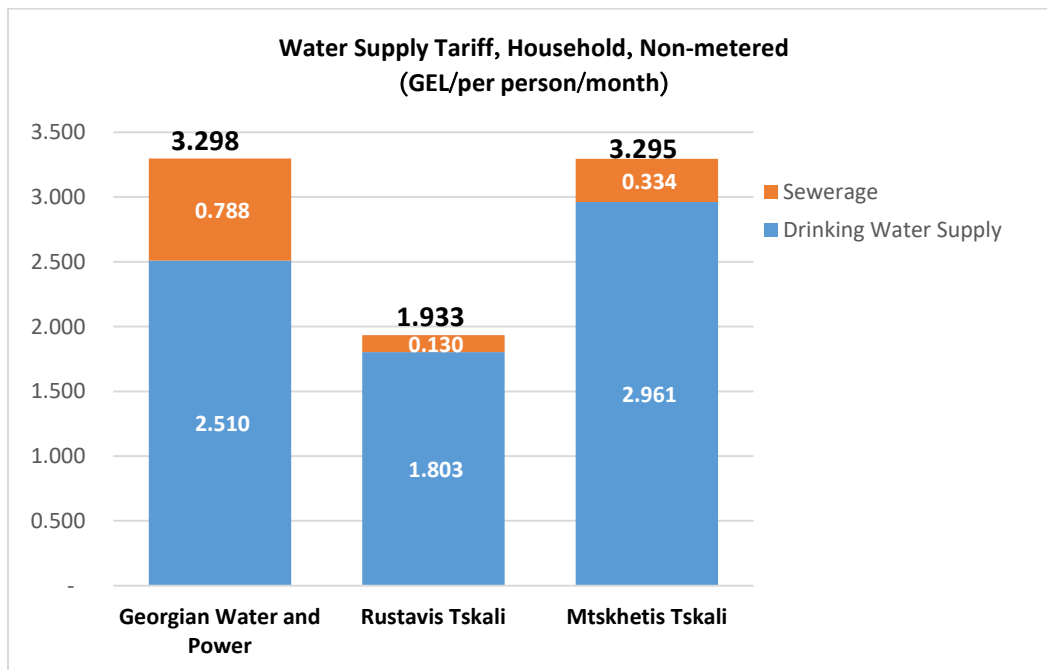
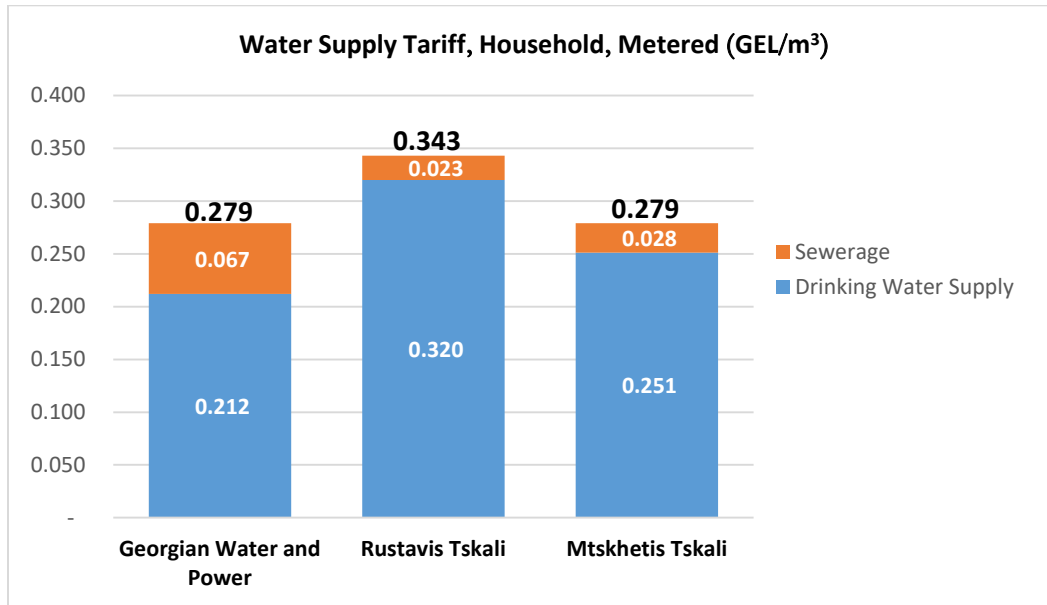
Annex №9 – Statistics of Natural Gas Distribution Licensees (m³)

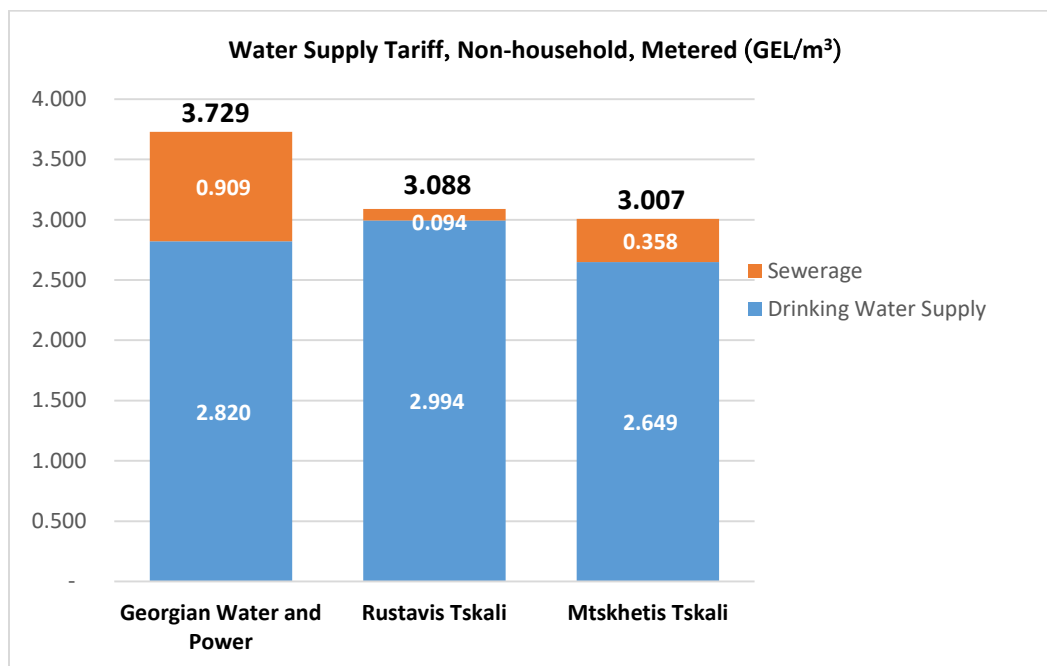
Licensee	Injection	Distribution	Wheeling	Losses
Energokavshiri JSC	11,294,201	10,984,330		309,871
SakOrgGas JSC	191,821,170	180,650,771	614,557	10,555,842
Sachkheregazi JSC	8,524,188	8,420,920		103,268
Akriani 2006 LLC	1,343,168	1,222,864		120,304
Arzu-gazi LLC	450,888	403,616		47,272
Gama LLC	6,695,765	6,632,373		63,392
Gasko+ LLC	4,282,444	3,986,475		295,969
Gogochuri & Company LLC	2,799,839	2,308,208	491,631	
Didi Dighomi LLC	12,681,537	11,811,918		869,619
DVS LLC	1,547,732	1,535,074		12,658
Energia+ LLC	1,489,785	1,464,140		25,645
SG Gas Company LLC	20,970,134	20,872,249		97,885
Vake LLC	935,474	861,322		74,152
Varketilairi LLC	15,668,748	15,309,627		359,121
Intergazi LLC	9,534,787	9,623,246		-88,459
Mamedi LLC	2,052,591	2,008,269		44,322
Socar Georgia Gas LLC	318,806,408	304,973,648	2,679,416	11,153,344
Taba LLC	1,364,365	1,294,162		70,203
KazTransGas Tbilisi LLC	660,799,399	571,745,993	34,459,009	54,594,397
Kamari M LLC	3,302,518	3,061,838		240,680
Chiraghdani LLC	277,276	263,418		13,858
Chiraghdani XII Saukune LLC	4,549,113	4,154,756		394,357
Telavgazi LLC/Wissol Petroleum Georgia JSC	17,860,511	15,259,181		2,151,015

Annex №10 – Natural Gas Tariffs

№	Distribution licensee	Consumption tariffs for household customers excluding VAT (Tetri/m ³)
1	2	3
1	KazTransGas Tbilisi LLC	39.101
2	Socar Georgia Gas LLC	48.245
3	SakOrgGas JSC	48.304
4	Telavgazi LLC	44.935
5	Gazmsheni LLC	35.161
6	Energokavshiri JSC	41.971
7	Gogochuri GP - Medium pressure	35.712
8	Arzu-gazi LLC	46.925
9	Ambrolaugazi JSC	44.915
10	Sachkheregazi JSC	43.599
11	Gama LLC	35.610
12	Kamari M LLC	43.220
13	Varketilairi LLC	41.263
14	Vake LLC	41.310
15	Didi Dighomi LLC	43.136
16	Taba LLC	48.801
17	Energia+ LLC	40.848
18	DVS LLC - Medium pressure - Low pressure	34.873 41.102
19	Gasko+ LLC - Medium pressure - Low pressure	34.661 45.170
20	Akriani 2006 LLC	43.220
21	Chiraghdani XII Saukune LLC	42.330
22	Chiraghdani LLC	45.763
23	SG Gas Company LLC	45.085
24	Gaztrans Service LLC	40.678
25	Intergazi LLC	Deregulated
26	Mamedi LLC	44.068

Annex №11 – Water Supply Tariffs





Annex №12 – Electronic Journal Entries at Electricity Sector by standards in 2018

Standard	Number of entries	Meet the deadline	Exceed the deadline	Without response
Informing customers about the date and duration of the planned termination	20,729	98.7%	1.3%	
Restoration of supply for disconnected customers in the case of unplanned termination	32,615	94.7%	5.2%	0.1%
Restoration of the supply to the customers disconnected due to nonpayment of debt	892,076	98.8%	1.2%	
Justified written response and/or responding to the written applications of the customers	66,971	98.8%	0.5%	0.7%
Checking metering devices on spot in response to application of the customers	8,639	99.4%	0.6%	
Registering as a subscriber	42,193	99.8%	0.2%	
Connection of a new customer	13,862	97.6%	1.4%	1.1%

Checking technical quality on spot in response to application of the customers	311	96.5%	3.5%	
Total	1,077,396			

Annex №13 – Electronic Journal Entries at Natural Gas Sector by standards in 2018

Standard	Number of entries	Meet the deadline	Exceed the deadline	Without response
Informing customers about the date and duration of the planned termination	1,592	99.7%	0.2%	0.1%
Restoration of supply for disconnected customers in the case of unplanned termination	765	78.6%	16.8%	4.6%
Restoration of the supply to the customers disconnected due to nonpayment of debt	199,958	95.6%	4.4%	
Justified written response and/or responding to the written applications of the customers	53,099	91.7%	0.1%	8.2%
Checking metering devices on spot in response to application of the customers	501	99.8%	0.2%	
Registering as a subscriber	24,181	99.9%	0.1%	
Connection of a new customer	75,028	98%	1.4%	0.6%
Checking technical quality on spot in response to application of the customers	413	100%		
Total	355,537			

Annex №14 – Electronic Journal Entries at Water Supply Sector by standards in 2018

Standard	Number of entries	Meet the deadline	Exceed the deadline	Without response
Informing customers about the date and duration of the planned termination	863	95.5%	4.4%	0.1%
Restoration of supply for disconnected customers in the case of unplanned termination	10,049	88.8%	11.0%	0.2%

Restoration of the supply to the customers disconnected due to nonpayment of debt	46,741	97.6%	1.8%	0.6%
Justified written response and/or responding to the written applications of the customers	64,973	85%	11.2%	3.8%
Checking metering devices on spot in response to application of the customers	1,990	58.1%	34.5%	7.4%
Registering as a subscriber	19,086	97.6%	1.7%	0.8%
Connection of a new customer	6,622	73.5%	20.5%	5.9%
Checking technical quality on spot in response to application of the customers	1,033	66%	25.3%	8.7%
Total	151,357			