Georgian National Energy and Water Supply Regulatory Commission

Report on Activities of 2019

Tbilisi
2020
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Dear Reader,

It is my pleasure to have opportunity to summarize activities of 2019 of the Georgian National Energy and Water Supply Regulatory Commission (hereinafter, the Commission).

It has been more than 20 years that the Commission undertakes regulatory functions of energy and water supply sectors in an independent, transparent and efficient manner, as well as protects interests of customers and regulated utilities. Development of these sectors is vital for the improvement of Country’s economy.

While carrying out its activities the Commission always applies modern, internationally recognized instruments and methods, in order to ensure prompt refinement of investment environment and regulatory framework and reflect those effects on the economy of the country and well-being of the society.

We are successful in maintaining balance between the customers and the regulated companies and fostering the development of the energy and water supply sectors by taking interests of each party into consideration.

2019 was especially important not only for the Commission but also for the whole energy and water supply sectors. A number of reforms in the direction of integrating with the European Union and harmonization of European legislation has been successfully implemented. A new law of Georgia on Energy and Water Supply has been approved that defined new standards and requirements for energy markets, water supply sector and market participant regulation.

From the activities of the last year I would emphasize secondary legislation developed and approved by the Commission in the electricity, natural gas and water supply sectors, as well as innovative projects implemented that ensured stable, quality and uninterrupted services by taking interests of the energy and water supply sector participants into account.

A new EU compliant legislative framework sets new goals. In the process of reforms the Commission as a regulatory body has a special role. Respectively, the Commission is ready to receive new challenges and improve regulatory instruments. I expect 2020 to be much more fruitful and we will successfully carry out our functions and obligations.

Hereby, let me present an annual report of 2019. Hope that comprehensive information provided in the report will be interesting for the readers.

Sincerely,
Davit Narmania
Chairman
2020
i. Main Directions and Results of the Commission’s Activities

In 2019 the following main activities and trends have been identified in the energy and water supply sectors:

**Electricity**

- Three EU regulations were added to the Network Rules approved by the Commission that will enable existence of EU standard complaint rules and fair conditions of competition. Those regulations are:
  - The Regulation of the European Commission 2016/631/EC on Establishing Network Code on Requirements for Grid Connection of Generators;
  - The Regulation of the European Commission 2016/1388/EC on Establishing Network Code on Demand Connection;
- The Commission has issued electricity generation license to Svaneti Hydro JSC in order to generate electricity through Mestiachala 1 HPP with 20 MW capacity and Mestiachala 2 HPP with 30 MW capacity.
- The Commission approved electricity generation tariffs for 2 licensees, electricity transmission tariffs – for 1 licensee, as well as guaranteed capacity fees and electricity generation tariffs– for 4 guaranteed capacity sources;
- Electricity generation (bus bar delivery) decreased by 2.6% in comparison to the previous year;
- Based on the data of 2010-2019 annual average increase of electricity generation (bus bar delivery) is 3.6%;
- Own consumption of the electricity increased by 1.4% in comparison to the previous year;
- Based on the data of 2010-2019 annual average increase of electricity consumption in Georgia is 5.3%;
- Electricity consumed by the electricity distribution companies decreased by 11.6% in comparison to previous year;
- Electricity consumed by the direct customers increased by 59.6%;
- Electricity supplied to Abkhazia increased by 7.2% in comparison to previous year;
- Import of electricity increased by 7.8% and also import of the electricity has exceeded export by 6.7 times where the same indicator was 2.6 in 2018;
- Export of the electricity decreased by 58.6% in comparison to the same indicators of the previous (2018) year;
- During reporting year 136.2 mln kWh electricity transit was carried out from Azerbaijan to turkey that ten times exceeds transit amounts of the previous year.
Electricity actual losses of the reporting year in the electricity system was 6.86%, including 1.76% in the transmission network and 5.1% in the distribution network. Losses of the electricity system increased by 4.2% in comparison to the same indicators of the previous year;

Total installed capacity of the electricity power plants constituted 4,229.85 mw (Hydro - 3,284.75 MW, Thermal – 924.4 MW, Wind – 20.7 MW), that exceeds the same indicator of the previous year by 1.7%.

Electricity distribution (supply) market is highly concentrated (HHI2019=5,338) where market share of Energo Pro Georgia JSC is 63% and of Telasi JSC is 37%;

Market shares of three largest generators of the electricity were allocated in a following manner: Enguri HPP LLC – 28.5%, Gardabani TPP LLC – 11.3% Mtkvari Energy LLC – 7.3%. Hereby Herfindahl Hirschman index of the electricity generation segment has constituted HHI2019=1,516

Market opening indicator has a significant dynamic (correlation of electricity purchased on the market in comparison to the total consumption): 2017 – 12.2%, 2018 –14.4%, 2019 – 22.1%;

The Commission reviewed and after lengthy consultations agreed upon 5 year distribution network development plans of Telasi JSC and Energo Pro Georgia JSC in accordance with the requirements envisaged in Network Rules;

Opinions and recommendations regarding 2020-2030 Transmission Network Development Plan were prepared;

Electricity generation facilities were put into operation, with the total installed capacity of 63 MW (including 3 small power plants with total installed capacity of 13 MW);

During a reporting year a net-metering regulation became applicable towards 92 new micro generation power plants and total installed capacity reached 2,158 KW. By the end of 2019, 156 micro-generation power plants are involved in the net-metering regulation, out of which 70 are connected to the network of Telasi JSC and 86 to Energo-Pro Georgia JSC.

2019 was characterized by especially hard (dry) climate conditions that triggered electricity deficit (decrease by 2.6% in comparison to previous years) due to the structure of the generation capacities of country (hydro generation 76%). Specifically, decrease of regulatory power plants constituted 15.4% whereas seasonal and small power plants – 4.4%;

Amendments were introduced to the Resolution №14, 2014 of Georgian National Energy and water Supply Regulatory Commission and Regulatory Cost Audit Rules for the Electricity Sector were added;

Electricity Reliability Monitoring Working Group created on the Basis of the Order N133 of March 6, 2019 of the Chair of Commission has studied electricity interruptions detected through electronic journal and determined that Energo Pro Georgia improved SAIDI by 16% and SAIFI by 12% in comparison with the previous year. Also Telasi JSC improved SAIDI by 11% but worsened SAIFI by 4%;

Georgian Energy Exchange JSC was established in 2019 that is mainly responsible for preparing, organizing and coordinating the measures necessary for the formation and development of day-ahead and intra-day organized markets, organization and coordination in accordance with the new legislation and electricity market concept.
Natural Gas

- Natural gas is still a main source for meeting final energy demand;
- The share of natural gas in total energy consumption is characterized by a slightly increasing trend;
- 99.8% of natural gas demand has been satisfied through imports. A main source of supplying natural gas to Georgia is still the republic of Azerbaijan (93%);
- Demand for natural gas increased in 2019 by 15% and constituted 2.5 bcm. An increase mainly concerned household and thermal power plant consumption;
- Consumption for the household purposes was 983 mln. cubic meters in 2019, whereas non-household consumption was 1,519 mln m³, out of which 678 mln m³ is TPP consumption;
- 36 suppliers were active on natural gas market in 2019;
- For the purpose of meeting demand of Georgia an import of natural gas was carried out by three suppliers;
- A wholesale trade with a cheap natural gas was carried out by 10 suppliers, out of which the share of three largest suppliers was 94%;
- In 2019 an average price of commercial natural gas at the wholesale trade was 0.59 GEL/m³;
- In comparison to 2018 a number of heating degree days increased in 2019 meaning that in 2019 heating of buildings required higher degrees;
- In 2019 gasification of new settlements continued, as a result of which a number of retail customers (both household and non-household) by the end of the year amounted 1,308,614;
- By December 31, 2019 25 distribution licensees were operating in Georgia out of which 3 are large licensees (Tbilisi Energy LLC, Socar Georgia Gas LLC and SakOrgGas JSC) that distributed 89% of the total natural gas;
- On the basis of the tariff applications submitted by Tbilisi Energy LLC, Taba LLC, Varketilairi LLC, Energokavshiri JSC, Sachkheregazi JSC, Telavgazi LLC and Arzu-Gas LLC the Commission set tariffs for natural gas supply, distribution, wheeling and consumption in 2019;
- Based on the Commission's decision a temporary household tariffs were set for Socar Georgia Gas and SakOrgGas JSC subscribers. Household tariffs entered into force on January 1, 2020 and will be effective until July 1, 2020;
- For the purpose of calculating distribution, wheeling and consumption tariffs of natural gas in 2019 the Commission agreed upon investment plants of 6 licensee companies for 2019-2022;
- In 2019 amendments were introduced to the Resolution №22 of August 31, 2018 of Georgian National Energy and Water Supply Regulatory Commission Natural Gas Network Code and a new table (annex N3) was added to it that envisages fees for connection to the transportation system and changes to existing connections;
- Amendments were introduced to the tariff methodology of the Commission that aimed at establishing 3-year tariff regulation period. Respectively, the Commission will set distribution/wheeling and transportation tariffs for the three-year regulatory period;
- Based on the new law of Georgia on the Energy and Water Supply the Commission shall issue licenses for natural gas transmission, distribution, storage system operation, liquefied natural gas equipment operation and natural gas market operation;
• After enactment of the new Law of Georgia natural gas distribution and transportation license holders have obligation to renew their authorizations. Natural gas transportation and distribution licenses issued before the enactment of the new law are temporarily valid and their holders will continue provision of respective services before unbundling is carried out in accordance with the legislation;

• In 2019 the Commission issued 1 license for the natural gas distribution and modified 5 distribution licenses. Specifically, amendments were made to licenses held by Inter Gas LLC, SakOrgGas JSC, Socar Georgia Gas LLC, Telavgazi LLC and Varketilairi LLC and their coverage areas increased. In 2019 one license of natural gas distribution license held by Ambrolaurigazi JSC was revoked.

**Water Supply Sector**

• Investment program “Mukhiani 2” of Georgian Water and Power LLC, regarding adjustment of water supply system, was discussed at the public hearing of the Commission. This project aims at renewal of damaged sections of distribution networks and arrangement of various infrastructural elements. The company is supposed to implement alternative supply project of the main feeder drinking water pipeline. The licensee is supposed to implement an alternative supply project of drinking water pipeline (main) of the settlement which will minimize water supply interruption in populated areas;

• The Commission approved a new model of drinking water tariffs for guest houses. The decision made at the public hearing does not apply to the apartments rented out periodically, including via various websites (AirBnB, booking.com and others). Hence individuals renting apartments on a daily basis, as well for a longer term, will pay household tariffs for drinking water. The Commission approved two types of tariff models for guest house owners and the customer is entitled to choose one of them;

• For the purpose of the sector development and encouragement of investment projects implementation, the Commission approved Investment Appraisal Rules under the Resolution № 27 of November 22, 2019;

• The Commission has been monitoring implementation of 2017-2020 investment plans of Georgian Water and Power LLC, Rustavis Tskali LLC and Mtskhetis Tskali LLC;

• Based on the Commission’s Decision № 77/12 of September 12, 2019 United Water Supply Company of Georgia LLC was fined in the amount of 5,000 GEL due to the violation of license terms;

• Based on the Commission’s Decision № 104/24 of December 20, 2019 Kobuletis Tskali LLC was charged with 5,000 GEL fine due to the violation of terms of the license;

• The uniform reporting forms for licensees was approved by the Commission’s Decision № 91/16 on November 14, 2019. It improves submission process of the mandatory information by licensees that is used in the process of evaluating their activities.

• Based on the Commission’s Decision № 78/5 of September 13, 2019 modification was made to the license of Marneuli Soplistskali LLC and the service coverage area of the company increased;

• According to the new methodology, the Commission determined normative losses of drinking water for three licensees (Georgian Water and Power LLC, Mtskhetis Tskali LLC and Rustavis Tskali LLC), actual loss of drinking water reduced by 8.9% (31 million cubic meter);
In comparison to previous year, a number of metered household customers increased by 12.3% (53,432 customers);

Average consumption by per metered household customer increased by 1.1%, whereas non-household consumption decreased by 7.8%.

Other

- The memorandum of cooperation was signed between the Commission and Service for Accounting, Reporting and Auditing Supervision. The cooperation aims at compliance with the requirements of the Georgian Legislation with regards to accounting, reporting and auditing;
- For the purpose of receiving service of modification of registration as a subscriber of electricity, natural gas and water supply sectors 15,878 applications were registered at the Public Service Hall in 2019. Customers are given possibility to submit the application and request changes to the registration of the subscriber from the licensees of all the three sectors (electricity, natural gas and water supply sectors) just by one visit to the Public Service Hall. Permanent subscribers so as temporary subscribers can benefit from this service at all 24 branches of the Public Service Hall. Customers can submit an application regarding modification of registration as a subscriber when registering the right to ownership on immovable property. At the same time the applicant can get the information regarding debits accrued to its immovable property. According to the memorandum signed between the Georgian National Energy and Water Supply Commission, Public Service Hall, National Agency of Public Registry, Public Service Development Agency and Data exchange Agency, the cooperation between these parties aims at developing quick and effective service in energy and water supply sectors;
- The EU-funded Twinning project was launched at Georgian National Energy and Water Supply Regulatory Commission on February 1, 2019 concerning “Development of Incentive Based Regulation for Service Quality and Regulatory Strategy to Support Roll-Out of Smart Metering” (ENI/2018/403-468). The project will last for 21 months and its total budget constitutes 1 200 000 Euro. The main purpose of the project is to ensure compliance of the secondary legal acts on service quality and reliability of supply with EU acquis and develop the regulatory strategy for supporting the smart-metering roll-out. The project was implemented by the Energy Regulatory Authority of Austria (E-Control), Energy Regulatory Commission of France (CRE) and Energy Regulatory Authority of Greece (RAE);
- USAID Energy Program (UEP) granted Uniform System of Accounts for the natural gas sector to the Commission. The consultants of USAID Energy Program developed documents necessary for establishing uniform accounting system for natural gas sector, including chart of accounts, instructions for the application of the chart of accounts and ensuring accounting, reporting forms;
- Georgian National Energy and Water Supply Regulatory Commission published the results of the Mystery Shopper Project. 11 utilities were inspected in the framework of this project throughout Georgia. At the inspection stage the utilities’ activities were inspected in terms of provision customers with the following services: new customer’s connection to the distribution network; increasing capacity; request of personal data by the subscriber; inspection of technical quality of supply; sending of electronic bill and SMS; termination of supply due to the non-payment and restoration after payment; planned outages and hotline services. Moreover, the efficient measures were implemented for elimination the violations detected by the previous research not only by the inspected companies but also by the other companies to which the research results and the Commission’s recommendations were sent;
• The Commission has hosted a meeting organized by Energy Regulators Regional Association (ERRA). At the workshop of Customer and Retail Market Committee following topics were discussed: customer’s rights in energy sector, quality of service, market monitoring and communication strategy;

• The memorandum of cooperation was signed between the Commission and Energy Service Administration of Italy (Gestore Dei Servizi Energetici GSE S.P.A.) that aims at cooperating on renewable energy and energy efficiency matters;

• The Commission approved Rules of Regulatory Cost Audit for energy, natural gas and water supply sectors. Regulatory Cost Audit Rules define principles for estimating correlation of cost with the regulated activity and its rationality in Energy and Water Supply Sectors;

• The Commission approved Rules of Energy Market Regulation that aim at creating competitive, transparent, fair and effective tools for the trade regulation for Georgian energy market, moreover promoting effective regulation of network operators, regional market integration and encouraging state policy in the energy sector;

• The Commission approved Investment Appraisal Rules that determine main principles and criteria for preparation, submission, evaluation, approval and monitoring the investment plans and investment projects. The rule applies to the electricity transmission, dispatch and distribution, natural gas transportation and distribution and water supply licensees, as well as to those electricity generation licensees to which the Commission sets electricity generation tariffs.

• In 2019, 95 administrative legal acts adopted by the Commission were appealed at the court of the first instance, including 94 – individual administrative acts and 1 normative act. In 2019, 42 cases were finalized out of which 29 decisions were made in favor of the Commission, whereas 13 decisions were made in favor of the author of the complaint, in 3 cases the plaintiff has called out the claim and the claim remained unconsidered; 7 cases were returned to the Commission for reconsideration, out of which 4 decisions were appealed at the Court of Appeals.
1. Electricity Sector

1.1 Electricity Market

1.1.1 Development of the Regulatory Framework

By the end of the reporting period, significant changes were made to the legislation regulating energy sector. Specifically, the Parliament of Georgia adopted new Laws on Energy and Water Supply (hereinafter, the Law) and on Promotion of Production and Use of Energy from Renewable Energy Sources, whereas the first hearing was held on draft law of Energy Efficiency.

It is notable that the Law envisages transposition of Energy Directives and Regulations on the basis of the Association agreement signed by Georgia in 2014 and Protocol of Accession to the Energy Community Treaty in 2017. In particular:

- Regulation №714/2009 (EC) of July 13, 2019 on conditions for access to the network for cross-border exchanges in electricity
- Directive №2005/89/EC of January 18 concerning measures to safeguard security of electricity supply and infrastructure investment;
- Regulation №715/2009 of July 13, 2019 concerning access rules to the natural gas transmission networks;

The law of Georgia on Promotion of Production and Use of Energy from Renewable Energy Sources aims at creating legal basis for supporting, incentivizing and using energy from renewable energy sources, also setting mandatory national targets for the share of energy generated from renewable energy sources in the total consumption as well as in transports.

The new legislation completely changes a secondary legislation, specifically new regulatory framework envisages adoption and amendment of more than 60 legal acts out of which licensing rules, market rules, certification rules, compliance rules etc. shall be highlighted. It is notable that the acts adopted and approved before the new law entered into force are still applicable before the enactment of new pieces of secondary legislation.

Based on the order of the Minister of Economy and Sustainable development amendments were made to the Electricity Market Concept Design based on which the stages of the upcoming structure of the electricity market and day-ahead and intraday organized markets, obligations of market participants, procedures for establishing market operator and measures for preparing and organizing the above-mentioned were specified.

Important amendments were introduced to the Electricity (Capacity) Market Rules concerning mandatory registration rules of the retail customers as a direct customer. Based on that provision, a retail
customer whose results of 2018 comply with the mandatory criteria defined for the direct electricity customers under Resolution №144 of March 25, 2019 of the Government of Georgia is obliged to register as a direct customer. Respectively, a direct electricity customer is a customer that meets at least one of the following mandatory criteria:

- Customers who get electricity (capacity) for their own consumption from the network of generation, transmission licensee(s), small power plant or other customers, at least if their connection points are connected to 35–110 KV voltage network, on average consumes at least 5 million kWh electricity from those supply points. Hereby, no less than 90% of their consumption is obtained from the supply points being at 35-110 KV voltage networks;
- Customers who get electricity (capacity) from 6-10 KV voltage network owned by the generation licensees or small power plants and on average consume at least 5 million kWh electricity from those supply points.

The following amendments were introduced to the **Electricity Network Rules**:

- European network codes were transposed, including: the Regulation of the European Commission 2016/631/EC on Establishing Network Code on Requirements for Grid Connection of Generators; the Regulation of the European Commission 2016/1388/EC on Establishing Network Code on Demand Connection; the Regulation of the European Commission 2016/1447/EC on Establishing a Network Code on Requirements for Grid Connection of High Voltage Direct Current Systems and Direct Current-Connected Power Park Modules. Those amendments were set new, modern and common European requirements and standards for connection to the network of the above-mentioned network users the most of which shall enter into force on July 12, 2021;
- The use of metering nodes of the direct customers in the wholesale metering were specified. The procedure used by network operators and ESCO for checking, verification and admission to the wholesale trade of direct customers’ metering nodes was defined.
- Restrictions for the cut in to the electricity line owned by the transmission licensee were set. Restrictions were envisaged for the minimum margin of the connection capacity in accordance with the following table:

<table>
<thead>
<tr>
<th>Voltage Level (KV)</th>
<th>Minimum Connection Capacity (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>250</td>
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<tr>
<td>400</td>
<td>200</td>
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<td>330</td>
<td>150</td>
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<td>220</td>
<td>50</td>
</tr>
<tr>
<td>110</td>
<td>10</td>
</tr>
</tbody>
</table>

The detailed information about amendments made to the “Electricity (Capacity) Supply and Consumption Rules” is provided in the Chapter 4 of this document.

Energy Market Monitoring Rules were approved under the Resolution №28, 2019 of Commission that aims at creating efficient mechanisms for competitive, free, transparent and fair trade regulation and
The Commission approved the Resolution №27 on Investment Appraisal Rules that aim at defining main investment plans of the regulated licensees and setting main principles and criteria to develop, submit, assess, approve, monitor and ammend investment plans.

Amendments were made to the Resolution 14 of Georgian National Energy and Water Supply Regulatory Commission and Regulatory Cost Audit Rules for the Electricity Sector were added.

1.1.2. Current Market Structure and Participants

Georgian Electricity Market Structure remained unchanged in 2019 and it is provided on Figure 1.1 by considering the amendments made to the legislation of Georgia regarding Energy in the previous years.

*Figure 1.1. Current Structure of the Electricity Market*

The electricity trade is mainly carried out by means of direct contracts. Electricity is sold by generators, importers and ESCO and purchased by an electricity distribution licensee (supply part), direct...
customers, exporters, electricity generators (Plant expenses), ESCO and the Dispatch Operator (for the purpose of covering losses in the electricity purchase process). For the electricity trade at the wholesale market it is necessary that the entity is registered at ESCO as an eligible enterprise.

1.1.3 Preconditions for Developing New Electricity Market Structure and Electricity Market Target Structure compliant with the Electricity Market Model

The Parliament of Georgia ratified the Protocol of Accession of Georgia to the Energy Community Treaty on April 24, 2017. Based on that protocol Georgia acceded to the Energy Community Treaty and respectively became a member of the Energy Community. The Protocol defined the terms for the implementation of the EU energy acquis.

The basis for the formation of the new electricity market structure is not only obligations undertaken by Georgia but also improvement of those faults that are characteristic to the current market structure.

Taking social-economic background of the country into consideration the following circumstances should be envisaged for the formation of the new electricity market model:

Electricity market concept design sets principles that aim at developing competition both at wholesale and retail level, shifting from the vertically integrated market to a structure legally, financially and functionally unbundling transmission and distribution functions from suppliers, traders and generators. Establishment and development of day-ahead, intraday and balancing markets under the electricity market concept design strengthens the importance of the independent regulatory authority that monitors and interacts on the basis of transparency, equality and sustainability criteria; market concept defines principles of protecting vulnerable customers, aims at maintaining electricity affordability and combating energy poverty.

The Figure 1.2 reflects the possible structure of the electricity market envisaged under Electricity Market Concept Design that envisages two new market participants:

- **Wholesale public service organization** that will carry out functions related to the public service obligations and function as an institutional trader in the name of the public service customers. The objectives of the person carrying out public services may cover (inter alia):
  - Support of the generators participating the guaranteed purchase agreements and integration of their generated electricity to the electricity organized markets;
  - Promotion of production of the renewable energy sources;
  - Ensuring purchase of the electricity produced by the generation units under state ownership and state management upon which public service obligation has been imposed,
  - Supporting universal service provider by ensuring stable electricity price and encouraging its integration to the organized market;
Figure 1.2 Target Electricity Market Structure in accordance with the Electricity Market Concept Design of Georgia

- **Universal Service (Retail) Supplier**- electricity supplier that offers universal services to the household customers and small undertakings. Universal service implies supply of the electricity in a form of the public service under regulated conditions to those final customers who are entitled to get electricity under such conditions (household customers and small undertakings).

The concept defined the functions of the Transmission System Operator and Balancing Market Operator in accordance with the 2009/72/EC Directive of July 13, 2009 of the European Parliament and Council concerning Common Rules for the Internal Market of the Electricity, specifically

- Setting conditions for obtaining the status of balance responsible party and balance service supplier;
- Forecast of the balance energy and necessity of the balance reserves and permanent purchase of the balance services from suppliers on the basis of the market principles;
- Ensuring measures necessary for balancing with the help of balance reserves and additional balance reserves purchased at the balance electricity trading market, by activating downstream or upstream regulation based on the merit order principle;
- Creation of the registry of the balance responsible party and balance service supplier.

The concept also envisages the **distribution system operator** in accordance with the Energy Community Treaty as the distribution system owner separated from supply, generation and trade functions who will be responsible for the maintenance, development and operation of the network.
Based on the current practices of the modern competitive markets the market concept imposed obligations of the balance responsible party and balance service provider upon the wholesale market participants according to which:

- The balance responsible party – the electricity market participant owning the generation or consumption facility connected to the network or its representative registered as a balance responsible person that is financially liable for its imbalance at the wholesale electricity markets;
- Balance service provider – balance responsible party that offers balance services to the transmission system operator.

The new market concept designed newly formulated **market operators functions** based also on the existing practices of the modern competitive markets:

- Establishment and operation of the day-ahead and daily markets in accordance with the electricity market rules;
- Keeping registry of the day-ahead and daily market participants and data protection;
- Publishing and updating the information necessary for the unimpeded organization of the market and necessary for the electricity activities;
- Receipt of orders from the balance responsible party (offers on electricity sale/purchase) for the day-ahead and intraday markets;
- Maintaining and updating the trade calendar.

According to the concept design the market participants will have possibility to sign bilateral contracts. Those contracts on the electricity purchase shall be concluded between the wholesale buyers and sellers, without the intermediary (over the counter) and settlement shall be also made between them. Such contract shall define the timeframes, amount, price, terms, and quality of the purchased electricity to be supplied and is registered at the transmission system operator. Market participants that are registered at the day ahead market and in the future will be registered at the intraday market will have possibility to conclude respective contracts at the organized electricity markets.

The above-mentioned market concept and general development trend somehow fosters the harmonization of the electricity sector structure and regulatory framework with the requirements of the third energy package and development of cross-border trade with the neighboring countries. However, they vaguely reflect those provisions that are necessary for the efficient liberalization (especially in terms of the retail market) and development of competition.

1.1.4. Monitoring Functional, Legal and Ownership Unbundling

The law of Georgia on Energy and Water Supply has defined unbundling models of the transmission and distribution system operators:

**a) Unbundling of the Transmission System Operator**

The Government of Georgia makes a decision on the unbundling model of the transmission system operator. However, the Commission after coordinating with the Energy Community Secretariat shall submit the unbundling model of the transmission system operator and its action plan to the Government of Georgia. The basic unbundling model is the ownership unbundling. The law exhaustively prescribes requirements for the ownership unbundling (the Article 45 of the Law). Hereby, in case of necessity the
Commission is entitled to discuss Independent System Operator model as an exemption from the ownership unbundling. This implies separation of completely independent system operator within the vertically integrated undertaking and its authorization in accordance with the criteria provided in the Law. Other transmission licensees that will not be authorized transmission system operators will become transmission system owners and exercise their rights and obligations in accordance with the Law (the Article 48) following the instructions provided by the transmission system operators.

The Commission monitors unbundling of the Transmission System operator and for those purposes certifies the Transmission System operator in accordance with its secondary legislation approved on the basis of the Law. After the successful certification licensing of the Transmission System Operator is also carried out.

b) Unbundling of the Distribution System Operator

The Distribution System Operator that is the part of the vertically integrated undertaking shall be independent at least in terms of legal form, organizational structure and decision-making functions from the activities that are not related to the distribution. For the purposes of unbundling the distribution system operator and its further authorization, the ownership unbundling from the vertically integrated undertaking is not mandatory.

The Commission monitors compliance of the distribution system operator with the unbundling requirements and for those purposes approves respective secondary legislation. Confirmation of the compliance of the Distribution Network Operator is the part of its licensing procedure.

Unbundling of the activities of the Transmission and Distribution System Operators shall be finalized by no later than December 31, 2020.

1.1.5. Main Characteristics of the Market

The Figure 1.4 states main characteristics of the electricity sector (indicators of the supply and consumption) in 2019. Several factors shall be emphasized in the electricity balance in the reporting year.
Electricity generation (bus bar delivery) in 2019 decreased by 2.57% in comparison to previous year and increased by 2.75% in comparison to 2017. Decrease in generation is the result of the reduced water flow. It is also worth noting that 2 seasonal (with 50 MW installed capacity) and 3 small (with 13 MW installed capacity) power plants were put into operation. Based on the data of 2010-2019 annual average increase of electricity generation is about 3.6%. This is the result of the power plants being put into operation in these years.

The electricity consumption increased by 1.4% in comparison to the previous year and by 7.6% in comparison to 2017. Annual average electricity consumption amounted 5.3% in the period of 2010-2019 (see Figure 1.5).

In terms of the electricity generation structure, the electricity generated (delivered on a bus bar) by thermal power plants increased by 34.5% and its share in the total generated electricity reached 23.4% (in 2018 it was 16.9%). When it comes to the electricity generated by the Hydropower Plants, in 2019 its share was 75.5% in the total generated electricity, whereas it was 82.3% in 2018. The share of the wind power plant put into operation by the end of 2016 was 0.7% (see Figure 1.6). It is notable that during the reporting year 2 medium-capacity power plants – Mestiachala HPP 1 (installed capacity – 20 MW) and Mestiachala HPP 2\(^1\) (installed capacity -30 MW) and 3 small power plants – Oro HPP (3.2 MW), Avani HPP (3.5 MW) and Sashuala HPP 2 (6.3 MW) were put into operation. The shares of the electricity generated (delivered on a bus bar) by power plants according to the types is provided on Figure 1.6.

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1. The amounts on Figures are provided in mln kWh, whereas electricity consumption of the direct consumers also envisages own consumption of the power plants in standby mode.
2. The Power plant is under rehabilitation due to natural disaster.
In 2019 the share of the electricity generated by the regulatory HPPs in the total generation constituted 45.3%, share of partly deregulated HPPs reached 28.9%, whereas share of the deregulated power plants were 25.8% out of which 71.5% is the electricity generated by the Power Plants with higher than 13 mw capacity and 28.5% is the electricity generated by small power plants (see figure 1.7).

In the structure of the electricity supplied to the customers throughout 2019 the distribution companies have a significant share (61.3%), whereas the share of the direct customers is 22.5% and the electricity supplied to Abkhazia is 16.1%. The electricity consumed by the distribution companies decreased by 11.5% in comparison to the previous year and by 7% - in comparison to 2017. The electricity consumed by the direct customers increased by 60% in comparison to the previous year and doubled in comparison to 2017. The electricity delivered to Abkhazia increased by 7.2% in comparison to the previous year and by 2.9% in comparison to 2016 (see figure 1.8).

In 2019 electricity import exceeded exports by 6.7 times (see figure 1.9). Electricity imports constituted 1,627 mln kWh that is 7.8% higher than the indicators of the previous year. When it comes to exports, during 2019 243 mln kWh electricity was exported from Georgia that is 2.4 times less than the indicator of the previous year.
Electricity import and exports during the reporting year per countries are provided on Figures 1.10 and 1.11. 68% of electricity import was carried out from Azerbaijan, and 32% was imported from Russia. An important part (46%) of the electricity export was carried out to Turkey, whereas 24% was imported to Russia, 24% was imported to Armenia and 5% to Azerbaijan. It is also important that a significant part of the electricity imports during previous years (61% in 2017 and 82% in 2018) was carried out from Azerbaijan, whereas the main part of export during previous years was carried out to Turkey.

The main characteristic of the energy security in the electricity sector is the uninterrupted electricity supply. It can be achieved by meeting the electricity demand of the country through maximum utilization of its resources. This will enable substitution of imports in the short run and the thermal generation – in the long run.

The dynamics of the electricity generation-consumption per months is provided on Figure 1.12. As it can be observed, Hydro and Thermal generation capacities are not enough to meet the demand during Autumn-Winter period. Respectively, electricity import is necessary to satisfy the demand. However, excessive water resources during spring and summer period enable meeting the electricity demand and exporting the excess electricity.
The Figure 1.12 denotes that electricity supply and consumption has seasonal character. Electricity consumption during winter is higher than in the summer time whereas supply of the electricity tends to be more opposite to the seasonal. Respectively, in terms of the electricity consumption, Georgia is a winter peak country, however according to the Figure 1.13 it is forecasted that the situation will change from 2021 and Georgia will become a summer peak country. Taking the above-mentioned into consideration, reduction of the share of the electricity import can be expected as far as the electricity demand will be shifted to the summer period when it will be possible to satisfy it with the local resources. On the other side putting new generation units into the energy system of the country will also foster reduction of share of the imported electricity.

For forecasting consumption of Georgia in summer and winter periods Compound Annual Growth Rate – CAGR is applied that is 3.6% in winter and 5.5% in summer on the basis of the data of 2006-2019. For these purposes summer period is from April to September and winter period from October to March.
Based on the analysis of electricity supply-consumption balances of 2019 it can be asserted that a great importance should be paid to the construction of new generation capacities using local energy resources. Respectively, together with the hydro resources other local hydrocarbon and renewable resources shall be utilized, including, wind and solar energy resources. It is worth mentioning that total generation capacity in 2019 increased by 2% in comparison to 2018 and reached 4,229.85 MW (installed capacity of the small power plants increased by 4.2%, whereas large and medium hydro power plants increased by 3.1%). Generation capacities per types of the power plants is provided on Figure 1.14.

1.1.5.1 Retail Market

The electricity retail market of Georgia is highly concentrated (HHI = 5,334), where the largest market share (63%) is held by Energo Pro Georgia JSC.

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 1.15 provides the information on the amounts of electricity consumed by the electricity distribution licensees according to months in 2019. The Figure clearly reflects that the highest consumption of Telasi JSC was observed in December – January and July-August and consumption of Energo Pro Georgia JSC is in January- December and March – April period. 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 1.16. Consumption by Energo Pro Georgia JSC per Customer Categories](image)

The consumption of the household customers in the area of Energo-Pro Georgia JSC reached 33% of the total consumption, whereas non-household consumption was – 67%. The consumption of household customers in the distribution area of Energo-Pro Georgia JSC slightly (1%) decreased in comparison to 2018, whereas non-household consumption decreased by 25%. This is a result of new regulatory framework that triggered large customers to trade on the market and register as direct customers (see Figure 1.16).

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 57% of total distributed electricity was consumed by customers connected at 0.4 kV network, 17% - by customers connected at 110-35kV network, whereas 26% - by customers connected at 6-10 kV network (see Figure 1.17). This was caused by new connections to the network of Energo-Pro Georgia JSC, specifically, 517.5 MW of new connections was...
arranged, out of which 250.65 MW (48%) was connected to 0.4 kV network, 51 MW (18.5%) – to 6-10kV network and 172.5 MW (33.5%) to the 110-35kV network. In 2019 64% was non-household and 36% - household consumption of the total consumption of Telasi JSC. The amount of the electricity consumed by non-household customers decreased by 2.5% in comparison to the previous year and by – 1.2% in comparison to 2017. Household consumption of Telasi JSC slightly decreased by 0.8% in comparison to the previous year and by 0.3% - in comparison to 2017 (see Figure 1.18).

The electricity distributed to the customers connected to 0.4 KV network has a significant share (66.8%) in the total amount of distributed electricity of Telasi JSC network. The share of customers connected to 6-10 KV network was 30%, whereas the share of customers connected to 110-35 kV network was 1% (see Figure 1.19).

1.1.5.2 Wholesale Market

95 generators were registered throughout the reporting period, including 5 thermal\(^4\), 2 regulatory\(^5\), 9 partly deregulated\(^6\), 15 deregulated\(^7\) (hydro) and 64 small (deregulated) power plants\(^8\) at the wholesale market.

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4 Thermal power plants: Gardabani 9\(^{th}\) energy unit, gas turbine, 3\(^{rd}\) and 4\(^{th}\) units of Tbilresi, Gardabani TPP,  
5 Regulatory power plants: Enguri HPP, Vardnili HPP  
6 Partly deregulated power plants: Khrami1, Khrami 2, Shaori HPP, Dzevruli, Vartsikhe, Gumati, Rioni and Lajanuri HPP.  
7 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 1HPP, Shuakhevi HPP,Kirmati Hpp and Old Energy HPP, MestiaHPP and MestiaHPP 2 HPP.  
8 Small Power Plants (less than 13 MW installed capacity) without electricity generation license: 64 HPPs in total.
The market shares for three largest electricity generators were allocated in a following manner: 28.53% - Enguri HPP LLC; 11.32% - Gardabani Thermal Power Plant LLC and 7.28% - Mtkvari Energy LLC. Herfindahl-Hirschman Index for the generation segment was HHI_{2019} = 1,363\textsuperscript{9}. Respectively, a generation segment can be assessed as a concentrated market. The same indicators of previous years are provided on Table 1.1.

<table>
<thead>
<tr>
<th>Name/Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enguri HPP LLC</td>
<td>32.5%</td>
<td>31.04%</td>
<td>31%</td>
<td>31.5%</td>
<td>33.4%</td>
<td>28.53%</td>
</tr>
<tr>
<td>Mtkvari Energy HPP LLC</td>
<td>11.3%</td>
<td>10.89%</td>
<td></td>
<td></td>
<td></td>
<td>7.28%</td>
</tr>
<tr>
<td>Vartsikhe HPP LLC</td>
<td>8.6%</td>
<td>7.21%</td>
<td>8.1%</td>
<td>9.9%</td>
<td>6.96%</td>
<td></td>
</tr>
<tr>
<td>Gardabani Thermal Power Plant LLC</td>
<td></td>
<td></td>
<td></td>
<td>9.8%</td>
<td>7.3%</td>
<td>9.76%</td>
</tr>
<tr>
<td>HHI</td>
<td>1,260</td>
<td>1,133.6</td>
<td>1,222.8</td>
<td>1,512.2</td>
<td>1,596</td>
<td>1,516</td>
</tr>
</tbody>
</table>

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 2019 electricity sold through direct contracts was 10,367.48 mln kWh, whereas the electricity sold at the balance market was 2,879.38 mln kWh. Respectively, the share of electricity trade through direct contracts was 78.3% of the total electricity delivered on a bus bar, whereas the share of balance electricity was 21.7%. The above-mentioned characteristics are provided on Figure 1.20 according to months.

![Figure 1.20. Electricity Trade at Balance Market and on the basis of Direct Contracts](image)

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...

\textsuperscript{9} While calculating HHI index for 2019 the possession of different power plants by the companies is considered.
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 1.21.

![Figure 1.21. Structure of Electricity Supply on the basis of Direct Contracts]

The structure of the electricity purchasers on the basis of direct contracts per each month is provided on Figure 1.22.

![Figure 1.22. Structure of the Electricity Purchasers on the Basis of Direct Contracts]

The structure of the balance electricity purchased by the market operator according per each month is provided on Figure 1.23.
The imported electricity has a significant share in the balance electricity purchased by the market operator in 2019. The electricity generated by HPPs is purchased by the market operator for the balance market throughout the year. During the months of June and July the electricity generated by HPPs almost fully satisfies the balance market (see Figure 1.24).

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 the price of the balance electricity increased by 3.5% in average compared with the previous year (see Figure 1.25). In the reporting year the price of the balance electricity sold by deregulated power plants to the market operator decreased by 3.5% in average in comparison to 2018 (see Figure 1.26).

1.1.5.3 Cross-Border Trade

The electricity cross-border trading is regulated on the basis of the law and market rules. During the reporting year, 25 importers and 37 exporters were registered at the Georgian electricity market, although only 1 importer and 9 exporters were active.

The 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 2019, total net cross-border capacity of Georgia constituted 2,550 MW (see Figure 1.27). Hereby, it is planned to increase the cross-border capacity of Georgia up to 4,500 MW by 2025 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 considering 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 preference is given to the import of the electricity having the lowest price.
 Similarly to import 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 the 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 the established procedures Georgian State Electrosystem JSC and Turkish side (Teias-Transmission System Operator of Turkey) agree on the Akhaltsikhe-Borchkha transmission line capacity volumes for each month of the upcoming year before August 1 of each year. Respectively, the capacity reallocation of a new transmission line with and without auction in 2019 was arranged in a following manner (see Figure 1.28).

![Figure 1.27. Cross Border Capacity of Georgia in 2019 and 2020 (MW)](image)

It is notable that despite the allocated capacity, the Akhaltsikhe-Borchkha transmission line is not loaded to the maximum extent and the export of electricity is not carried out through that line. The capacity of the above-mentioned electricity transmission line throughout the year was 700 MW per month except of May and June. Despite this fact, a significant difference exists between actual and possible capacities (see Figure 1.29).

![Figure 1.28. Capacities of Akhaltsikhe-Borchkha Transmission Line already Distributed and to be Distributed](image)

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10 ATC - Available Transmission Capacity, AAC - Already Allocated Capacity, ATC=NTC-ALC, where NTC - Net Transfer Capacity
1.2. Licensing and Technical Regulation

1.2.1 Licensing Applications and Amendments to the License Registry

According to the data of December 31, 2019 28 licensees were operating in the Georgian electricity sector (see Annex N1), including:

- Generation – 21;
- Distribution – 2;
- Transmission – 3 (plus one preliminary license);
- Dispatch – 1.

During the reporting period the Commission prepared the following decisions regarding licensing:

- Based on the Commission’s Decision №23/20 of March 27, 2019 the generation license (Serie 11, №092) was issued for generation of the electricity at Mestiachala HPP 2 with 30 MW installed capacity;
- Based on the Commission’s Decision №39/28 of May 24, 2019 amendments were made to the Decision № 23/20 of March 27 and the generation license was issued to Svaneti Hydro JSC for generation of the electricity at Mestiachala 1HPP with 20 MW installed capacity;
- Based on the Commission’s Decision №96/5 of November 29, 2019 amendments were made to the electricity generation license of the Energo-Pro Georgia JSC. This amendment was due to the rehabilitation of N2 Hydro aggregates of Rioni HPP and Gumati 1 HPP that increased the installed capacity of Rioni HPP by 3 MW and Gumati 1 HPP by 1.7 MW.

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

The control of the reliability (uninterrupted) of the electricity supply is carried out in accordance with the Commission’s Resolution №9 of December 28, 2018 on Approving Service Quality Rules
(hereinafter – the Service Quality Rules). The above-mentioned 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 an electronic journal.

The Commission’s Resolution №9 of December 28, 2018 envisages financial incentives to motivate the companies to improve annual reliability index of electricity supply to customers. Moreover, in case of worsening of the 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 Order №133 of March 6 of 2019 of the Chair of the Commission, Electricity Supply Reliability Monitoring Working Group (hereinafter – the Working Group) was established which is responsible for supervising the dynamics of electricity supply interruptions, analyzing systemically the reasons beyond them and developing the recommendations for eliminating the revealed defects based on this analysis.

It should be mentioned that amendments were introduced to the reliability indicator calculation methodologies, specifically, instead of using full number of subscribers for formula (that included so called inactive subscribers) the new methodology envisages using only the numbers of active subscribers.

Based on the above-mentioned, a new formula was applied for calculation of electricity reliability of Telasi JSC and as a result its SAIDI due to scheduled and unscheduled outages is 11 and 03 min and SAIFI is 5.7 due to scheduled and unscheduled outages.

The working group has studied the information submitted by Telasi JSC and as a result 6316 interruptions (5372 – company’s fault and 944- external fault) were observed, out of which the fault was detected in the recordings of 91 interruptions (a mechanical fault – 1.44% of recordings).

Based on the data of 2019 the scheduled and unscheduled SAIDI due to the company’s fault is 9 hours and 52 minutes that improved in comparison to the same indicators of the previous year by 1 hour and 10 minutes (calculated on the basis of the new methodology), whereas scheduled and unscheduled SAIFI due to company’s fault is 5.9 that worsened by 0.2 in comparison to the previous year.

On the basis of the benchmarking data (see tables 1.2. and 1.3.) it can be observed that Telasi JSC SAIFI worsened in comparison to the reliability indices of 2018 that requires further survey and planning respective measures.

<table>
<thead>
<tr>
<th>SAIDI</th>
<th>2019</th>
<th>2018 *</th>
<th>2017 **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>9:52:26</td>
<td>11:03:15</td>
<td>9:22:03</td>
</tr>
</tbody>
</table>

Table 1.2. SAIDI for Telasi JSC (due to the company’s fault)

<table>
<thead>
<tr>
<th>SAIFI</th>
<th>2019</th>
<th>2018 *</th>
<th>2017 **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled</td>
<td>3.20</td>
<td>3.30</td>
<td>5.09</td>
</tr>
<tr>
<td>Unscheduled</td>
<td>2.70</td>
<td>2.40</td>
<td>1.69</td>
</tr>
<tr>
<td>Total</td>
<td>5.90</td>
<td>5.70</td>
<td>6.78</td>
</tr>
</tbody>
</table>

Table 1.3. SAIFI for Telasi JSC (due to the company’s fault)

* Adjusted data of 2018 (calculated in accordance with the new methodology) has been applied for comparison.

** Information reflected in the electronic journals by Telasi JSC in 2017 has been applied for the comparison.
The working group studied interruptions reflected in the Electronic Journal and the information requested from the company. In 2019 42920 interruptions have been registered (35330 – company’s fault and 7590 – external factors), out of which the fault was detected in the recordings of 97 interruptions (a mechanical fault – 0.22% of recordings). Scheduled and unscheduled SAIDI due to the company’s fault is 55 hours and 26 minutes that improved by 10 hours and 54 minutes, whereas scheduled and unscheduled SAIFI due to the company’s fault is 27.3 that is 3.6 times better than the indicator of the previous year.

The information provided in the reports and electronic journals was used for the comparison of data (see tables 1.4. and 1.5.) and it has been observed that reliability index of Energo-Pro Georgia JSC in 2019 did not worsen in comparison with the data of 2018 and is worsen compared with the data of 2017.

<table>
<thead>
<tr>
<th>SAIDI</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled</td>
<td>29:44:50</td>
<td>35:32:36</td>
<td>28:59:18</td>
</tr>
</tbody>
</table>

Table 1.4 SAIDI for Energo Pro JSC (due to the company’s fault)

<table>
<thead>
<tr>
<th>SAIFI</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unscheduled</td>
<td>16.90</td>
<td>20.00</td>
<td>22.70</td>
</tr>
<tr>
<td>Scheduled</td>
<td>10.40</td>
<td>11.87</td>
<td>13.03</td>
</tr>
<tr>
<td>Total</td>
<td>27.30</td>
<td>31.88</td>
<td>35.72</td>
</tr>
</tbody>
</table>

Table 1.5. SAIFI for Energo – Pro JSC (due to the company’s fault)

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

1.2.3. The Transmission and Distribution Network Losses

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

The amount of the electricity losses in the electricity distribution networks was defined for the distribution licensees under the above-mentioned Decision for 2018-2020 tariff regulatory periods. Respectively, the total normative loss of Energo-Pro Georgia JSC is 9.9% of the electricity received in its network and 5.847% for Telasi JSC.

During the reporting year actual total losses in the electricity transmission and distribution network were 6.86% in relation to the total amount of electricity actually received in the network (1.76% in the Transmission Network, 5.1% in the Distribution Network). Those indicators exceed the same indicators of the previous year by 5.86% (transmission losses decreased by 8.33%, whereas for distribution it increased by 11.84%).

Actual losses in the network of the Energo Pro Georgia JSC reached 526.6 mln kWh that is 9.8% of the electricity received in the network. The Actual losses of the company in 2018 were 7.86% of the...
electricity received in the network. Respectively, it increased by 25% during the reporting year.

When it comes to Telasi JSC, actual losses of the company in 2019 reached 5.01% of the total electricity received in the network that exceeds data of 2018 by 4.6%.

1.3. Tariff Setting and Regulation

1.3.1. 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 of Georgia on Energy and Water Supply and tariff methodologies developed and approved by the Commission pursuant to this law.

Based on the tariff methodologies electricity tariffs are calculated in accordance with the “incentive-based” and “cost-plus” 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.

1.3.2. Current Tariffs of the Sector

According to the tariff methodologies and regulations adopted by the Commission, the Commission sets tariffs for 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 set long-term tariffs for the generation, dispatch, transmission and distribution licensees for the regulatory period of 2018-2020.

Based on the tariff setting methodologies tariffs are subject to adjustment only in case if the analysis of the company’s annual report shows that adjustment amount equals or exceeds plus or minus 10% of the expected revenue. Based on that provision, generation tariffs for 2020 were approved (adjusted) for Enguri HPP LLC and Vardnili Cascade LLC and the transmission tariffs for 2020 were adjusted for Georgian State Electrosystem JSC.

Long-term marginal tariffs of the HPPs located on Khrami River were also adjusted and new long-term marginal tariffs were approved under N30 and N31 Resolutions of November 28, 2019 of the Commission for Khrami 1 HPP and Khrami 2HPP.

Hereby, 2019 was a regular year for calculating guaranteed capacity tariffs of the Thermal Power Plants and guaranteed capacity tariffs were set by the Commission on the basis of the Resolutions N34, N35, N36 and N37 of the Commission to G-Power (gas fired power plant), Gardabani TPP LLC (combined-cycle power plant), International Energy Corporation of Georgia LLC (3rd and 4th units of Tbilisresi) and Mtkvari Energy LLC (9th unit of Tbilisresi). The detailed information is reflected in the Annex N8 of this Report.

1.3.3. Investment Project Implementation Analysis

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 calculation or adjustment. Respectively, within the tariff
regulation purposes (except of the guaranteed capacity sources) licensees submit information on the investments to the Commission periodically, in accordance with the established rules.

Licensees are obliged to carry out detailed reporting regarding the actually fulfilled works related to 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.

In 2019 the investments actually carried out in electricity sector by generation, transmission and distribution licensees subject to tariff regulation constituted 220,108 thousand GEL in total. The information about the types of activity and financing sources is presented on the Figures below (see Figure 1.31 and 1.32). Investments to be carried out are financed by own sources, loans or by funds of third party.
The goal of the electricity distribution companies is to improve efficiency and reliability of electricity supply in their licensed area as well as increase the capacity for further development of electricity networks for which these companies carry out investments every year. In 2019 the investments actually carried out in case of Telasi JSC operating in Tbilisi constituted 38,377 thousand GEL (29%), while in case of Energo-Pro Georgia JSC operating in the rest regions of Georgia other than Tbilisi constituted 95,443 thousand GEL (71%).

1.3.4. Tariff Benchmarking

For the purpose of assessing a tariff burden existing in Georgia, current household tariffs in different countries are presented in Table 1.6 and on Figure 1.33.

<table>
<thead>
<tr>
<th>Country</th>
<th>Household Tariff (Tetri/kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>13.88</td>
</tr>
<tr>
<td>Ukraine</td>
<td>14.13</td>
</tr>
<tr>
<td>Russia</td>
<td>16.34</td>
</tr>
<tr>
<td>Georgia</td>
<td>18.89</td>
</tr>
<tr>
<td>Serbia</td>
<td>22.58</td>
</tr>
<tr>
<td>Armenia</td>
<td>24.69</td>
</tr>
<tr>
<td>North Macedonia</td>
<td>25.04</td>
</tr>
<tr>
<td>Turkey</td>
<td>27.09</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>27.92</td>
</tr>
<tr>
<td>Moldova</td>
<td>29.93</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>31.88</td>
</tr>
<tr>
<td>Montenegro</td>
<td>33.00</td>
</tr>
<tr>
<td>Hungary</td>
<td>35.82</td>
</tr>
<tr>
<td>Lithuania</td>
<td>40.13</td>
</tr>
<tr>
<td>Malt</td>
<td>41.73</td>
</tr>
<tr>
<td>Croatia</td>
<td>42.24</td>
</tr>
<tr>
<td>Poland</td>
<td>42.95</td>
</tr>
<tr>
<td>Estonia</td>
<td>43.40</td>
</tr>
<tr>
<td>Romania</td>
<td>43.43</td>
</tr>
<tr>
<td>Island</td>
<td>44.96</td>
</tr>
<tr>
<td>Slovakia</td>
<td>50.43</td>
</tr>
<tr>
<td>Latvia</td>
<td>52.09</td>
</tr>
<tr>
<td>Slovenia</td>
<td>52.25</td>
</tr>
<tr>
<td>Greece</td>
<td>52.77</td>
</tr>
<tr>
<td>Country</td>
<td>Tariff (Tetri/kWh)</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Finland</td>
<td>55.45</td>
</tr>
<tr>
<td>Czech</td>
<td>55.90</td>
</tr>
<tr>
<td>France</td>
<td>56.44</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>57.50</td>
</tr>
<tr>
<td>Norway</td>
<td>59.70</td>
</tr>
<tr>
<td>Sweden</td>
<td>64.44</td>
</tr>
<tr>
<td>Austria</td>
<td>65.05</td>
</tr>
<tr>
<td>Netherlands</td>
<td>65.62</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>67.86</td>
</tr>
<tr>
<td>Portugal</td>
<td>68.75</td>
</tr>
<tr>
<td>Cyprus</td>
<td>70.45</td>
</tr>
<tr>
<td>Italy</td>
<td>73.58</td>
</tr>
<tr>
<td>Spain</td>
<td>76.85</td>
</tr>
<tr>
<td>Ireland</td>
<td>77.49</td>
</tr>
<tr>
<td>Belgium</td>
<td>90.79</td>
</tr>
<tr>
<td>Denmark</td>
<td>95.43</td>
</tr>
<tr>
<td>Germany</td>
<td>98.75</td>
</tr>
</tbody>
</table>

*Table 1.6. Household Tariffs in Different Countries of Europe (Tetri/kWh) (including taxes)*

*Figure 1.33. Household tariffs in Different Countries of Europe (Tetri/kWh) (including taxes)*
1.4. Promotion of Renewable Energy

Georgia is rich in renewable energy sources out of which the water resources have the largest energy potential. However, alternative renewable energy sources (such as wind, sun, etc.) are gaining significance. The adoption of the above-mentioned laws and development of the relevant secondary legislation will promote the utilization of these resources. It should be mentioned that the “Law of Georgia on Energy Efficiency” planned to be adopted in the upcoming year, is under the Parliament’s scrutiny.

The role of the Commission in implementation of legislation related to renewable energies and energy efficiency is significant. To serve the above-mentioned purposes, the Commission plans to amend “Network Rules” and approve new Electricity Market Rules that envisage priority access of renewable energy sources to the network and in case of necessity full or partial imposition of network access charges/costs on network operator and determination of public obligations on electricity market in compliance to the Georgian legislation. 24-month period was defined for the Commission to meet the above-mentioned goals based on the “Law of Georgia on Promotion of Generation and Utilization of Electricity from Renewable Energy Sources”. Within the same period the Commission shall approve the Rules on Certificate of Origin for Electricity Generated from Renewable Energy Sources.

The Commission has a key role in regulation and incentivizing/promotion of micro-generation power plants. The regulation on “Net Metering” has been effective since 2016. The information on net-metering can be found in the upcoming paragraph.

1.4.1. Results of Implementation of Net-Metering Regulation

Active participation of customers in operation of electricity retail market is the modern tendency for 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-generation power plants owned by customers is net-metering that has gained popularity in Georgia as well.
The regulation on net-metering entered into force in 2016\(^\text{11}\). Initially, individual connections were allowed that generated interest towards micro generation power plants on customer level. Later, in 2019, the Commission introduced changes in the above-mentioned regulation and allowed joint connection of customer group to the net-metering programme.

According to the data collected by the Commission, by the end of 2019, 70 subscribers of Telasi JSC, with 1,067.6 kW installed capacity and 86 subscribers of Energo-Pro Georgia JSC with 1,090.36 kW total installed capacity were utilizing net-metering. In 2018 the total number of subscribers was 156 with 2,157.96 kW total installed capacity. The number of subscribers using net-metering increased by 2.4 and connected capacity – by 2.9 in comparison to the previous year.

Figure 1.35 demonstrates the development of micro generation power plants in Georgia in 2016-2019. It is evident that net-metering has a positive influence on micro generation growth indicator, but mainly on the account of individual connections, as only three requests of group connection were recorded in 2019.

![Figure 1.35. Dynamic of development of microgeneration power plants in Georgia in 2016-2019](image)

The adoption of the “Law of Georgia on Energy and Water Supply” and “Law of Georgia on Promotion of Generation and Utilization of Electricity from Renewable Energy Sources” by the Parliament of Georgia on December 20, 2019 was a significant step forward for the development of microgeneration power plants. The laws have encouraged the improvement of net-metering programme and incentivized the development of micro generation power plants.

The new legislation envisages the increase of capacity limit of micro generation power plants from 100 kW to 500 kW, which enables the Commission to involve more powerful/strong power plants in the so-called “net-metering” programme through the increase of capacity limit of micro generation power plants. Furthermore, the removal of the obligation related to physical placement of micro

\(^{11}\) “Electricity (capacity) Supply and Consumption Rules” approved by the Regulation No.20 by the Commission on September 18, 2008
generation power plant at the point of electricity consumption will definitely expand the geographic area of placement of energy sources and increase the opportunities for interested parties. The Commission continues further improvement of net-metering regulation in compliance to the new legislation which is planned to become effective in the first half of 2020.
2. Natural Gas Sector

Natural Gas still remains the major source of satisfying the demand for energy in Georgia. The share of natural gas in the total energy consumption is characterized by a slow but growing trend. In 2019, 99.8% of demand for natural gas was satisfied through import in Georgia and the rest 0.02% - through local production. The Republic of Azerbaijan still remains the main supplier of natural gas for Georgia. In 2019, the demand for natural gas increased by 15% compared to the previous year. The increased rate is related to household and TPPs’ consumption.

2.1. Natural Gas Market

According to Energy Balance of Georgia, the share of natural gas in the total consumption of energy equals 34.5%. At the same time, there is a decrease in the share of biofuels and waste, which may be caused by an active gasification process and the replacement of solid fuels with natural gas (See Figure 2.1).

![Energy Balance of Georgia](image)

In 2019, natural gas was supplied to Georgia from 4 main sources. The main source still remains the republic of Azerbaijan. Figure 2.2 illustrates the volume of the natural gas market of Georgia and directions of natural gas flows in 2019.

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12 Source: National Statistic office of Georgia, Energy Balance of Georgia for 2018
2.1.1. Regulatory Frameworks

In 2019 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:

- The amendments were made to the Natural Gas Network Rules approved by the Resolution №22 of August 31, 2018. Annex №3 was approved in accordance to which the connection to transportation system and the fee for the changes in existing connection shall be calculated.
- The amendments were made to the tariff methodology of the Commission aiming at introduction of a 3-year tariff regulation period. Accordingly, the Commission will set the natural gas distribution/wheeling and transportation tariffs for the period of 3 years. Taking into consideration the above-mentioned, the relevant amendments were necessary to made to the Resolution №4 of March 28, 2017 on Approval of the Normative Losses Calculation Rules in the Natural Gas Transportation System and to the Resolution №5 of March 26, 2015 on Approval of the Normative Losses Calculation Rules.

The data used in this chapter are preliminary and may be changed as a result of the audited data submitted by the regulated utilities.
Rules in the Natural Gas Distribution System, since the above-mentioned acts applied to one year tariff regulation period.

2.1.2 Market structure and its participants

The natural gas market covers natural gas retail and wholesale markets. An organized market of natural gas does not exist in Georgia. Due to this fact purchase and selling of natural gas on the wholesale market are carried out through bilateral agreements. Suppliers import natural gas (or purchase small volumes of extracted natural gas) and resell it to the other suppliers. However, at the retail level, suppliers directly supply natural gas to the final customers. The abovementioned does not exclude the operation of one supplier at both market levels.

The companies affiliated to Socar are still holding dominated positions and participating in the wholesale and retail markets. Accordingly, the natural gas market of Georgia is concentrated at both levels. Therefore, one of the challenges is an access to the natural gas for the deregulated customers in a competitive price.

In 2019, 36 suppliers carried out activities on the natural gas market - two of them were active only on the wholesale market, 26 only on the retail market and 8 - at both levels of the market (see Annex N9).

Physical delivery of natural gas to the final 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

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.

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 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.

Given the fact that setting the 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 the natural gas sector reform.

Similar to the third energy package of Europe, a new Law on Energy and Water Supply adopted on December 27, 2019, covers the norms related to legal unbundling of natural gas distribution system operators and determines that a natural gas distribution license seeker shall meet the requirements related to distribution system operator unbundling. In addition, the law sets certain exceptions, in particular, the Ministry of Economy and Sustainable Development of Georgia is authorized, in agreement with the Commission, to release the vertically integrated energy undertaking serving less than 100,000 customers.
connected to the network from fulfilling the set obligations regarding DSO unbundling and independence. Accordingly, in the event the Ministry takes the above-mentioned decision, separate DSOs shall not be subject to unbundling obligation. It is noteworthy that the independence requirement of DSO does not originate the ownership unbundling obligation of DSO’s assets from vertically integrating undertaking.

As for the natural gas TSO (as of today, natural gas transportation licensee - Georgian Gas Transportation Company LLC), pursuant to the new Law on Energy and Water Supply, it should meet the requirements related to TSO unbundling and certification. In case of a TSO, the law sets ownership unbundling obligation, however, an alternative option is also envisaged. In particular, if by October 6, 2011 or before, the TSO belonged to the vertically integrated undertaking, as an exception from the Ownership Unbundling model, an Independent System Operator model may be applied. In agreement with the Energy Community Secretariat, the Commission presents to the Government of Georgia the TSO unbundling model and the action plan for its implementation. The Government of Georgia takes the decision on the TSO unbundling model.

The Law of Georgia on Energy and Water Supply sets particular measures to be taken for unbundling and deadlines for separate actions. The deadline for proper implementation of natural gas TSO and DSO independence and unbundling requirements is December 31, 2021.

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 the retail market natural gas is supplied to end-users.

2.1.4.1. Natural Gas Wholesale Market

The Republic of Azerbaijan still remains the main supplier of natural gas for Georgia. Georgia receives 93% of natural gas necessary to satisfy its needs from Azerbaijan through different contracts. At the same time, Georgia carries out transit of natural gas from Russia to Armenia, which in 2019 exceeded last year’s indicator by 15%.

In 2019 the demand of Georgia for natural gas amounted 2,503 mln m³, which exceeded last year’s indicator by 15%. Three 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, the rest – through local production. Three suppliers, out of which one of them is also an importer, purchased local production and injected natural gas in the transportation system of Georgia. Accordingly, in total five 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 5,200 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.

The information on natural gas delivered to Georgia in 2019 is highlighted in Table 2.1.

45
### Table 2.1. Natural gas delivery to Georgia by entry points (Mln m³)

<table>
<thead>
<tr>
<th>Natural Gas Entry Points</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>1,321</td>
<td>1,200</td>
<td>1,105</td>
<td>1,229</td>
</tr>
<tr>
<td>Russia</td>
<td>122</td>
<td>135</td>
<td>39</td>
<td>162</td>
</tr>
<tr>
<td>Armenia</td>
<td>19</td>
<td>0</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>SCP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional and optional</td>
<td>792</td>
<td>821</td>
<td>822</td>
<td>853</td>
</tr>
<tr>
<td>Import</td>
<td>0</td>
<td>180</td>
<td>296</td>
<td>339</td>
</tr>
<tr>
<td>Local production</td>
<td>6</td>
<td>8</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>2,261</td>
<td>2,344</td>
<td>2,286</td>
<td>2,592</td>
</tr>
</tbody>
</table>

10 suppliers carried out trading in natural gas available on the Georgian market at the wholesale level. The share of 3 largest suppliers amounted 94% and HHI index constituted 3,115 that indicates a highly concentrated market. 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 taking special measures. 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 by the population and TPPs for consumption purposes. Accordingly in this segment, retail and wholesale prices of natural gas are 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, in 2019 the average price of natural gas at this level of trading accounted for 0.59 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, the minimum price at Central European gas hub\(^4\) by 2019 amounted approximately 9 Euro/MWh that constitutes 0.32 GEL/m\(^3\).

### 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 fuel filling stations’ consumption, on the other hand. In 2019, natural gas consumption by TPPs is significantly increased.

The structure of natural gas consumption and information on natural gas consumed by each sector is given on Figures 2.3.

**Figure 2.3. Natural gas consumption by different sectors (%)**

As figure illustrates, apart from gas filling stations, the demand for natural gas has significantly increased in every sector. The increased demand by 16% in household sector is conditioned 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). Natural gas consumption by TPPs has also significantly increased (39%). The above-mentioned was conditioned by small amount of precipitation. Due to this fact, the share of TPPs has increased up to 24% in total generation of electricity, which exceeds by 7% the same indicator of 2018. As for decrease of the demand for gas by gas filling stations, since 2015 when natural gas consumption in motor transport hit the peak, the consumption has been constantly decreasing. The reasons

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\(^4\) Source: Central European Gas Hub AG (CEGH), [www.cegh.at](http://www.cegh.at)
for above-mentioned are: increased prices on natural gas, increased taxes on this type of fuel, prices on competitive fuel (recent increased competition from LPG), increased import of hybrid and electric vehicles, mainly replacing vehicles running on 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.

Figure 2.4. Natural gas consumption by different sectors

The demand for natural gas has been more or less equal in other sectors of economy for the last five years. As Figure 2.4 illustrates, the biggest consumers are trading, repair\textsuperscript{15} of cars, household appliances and means of personal consumption, processing industry and generation and distribution sectors of electricity, natural gas and water\textsuperscript{16}. In total, they consume 82% 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 2.5 illustrates the demand for natural gas by months according to the sectors.

\textsuperscript{15} This category includes natural purchase by gas filling stations.
\textsuperscript{16} Including TPPs.
Apart from the sharply expressed seasonality of TPPs, the consumption of natural gas by different commercial entities is also characterized by seasonality, considering the fact that the sectors of healthcare and social assistance, state governance, education, hotels and restaurants and other organizations providing municipal, social and personal services consume natural gas for heating the buildings. The total share of the above-mentioned sectors in the whole consumption amounts 14%.

Table 2.2 indicates the share of different sectors of the economy in the total consumption and seasonal coefficient\(^7\) of the above-mentioned sectors. As it is clear from the table, the majority of sectors is characterized by sharply expressed seasonality.

\[
\begin{array}{|c|c|c|}
\hline
\text{Sector} & \text{Seasonal coefficient (\%)} & \text{Share in total consumption (\%)} \\
\hline
\text{Agriculture, hunting and forestry; fishing} & 74\% & 1\% \\
\text{Processing industry} & 52\% & 24\% \\
\text{Generation and distribution of electricity, natural gas and water} & 83\% & 45\% \\
\hline
\end{array}
\]

\(^7\) 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.
Trading, repair of cars, household appliances and means of personal consumption | 50% | 13%
---|---|---
Hotels and restaurants | 66% | 2%
Transport and communications | 54% | 0%
State governance | 80% | 2%
Education | 88% | 2%
Healthcare and social assistance | 80% | 1%
Providing other municipal, social and personal services | 66% | 6%
Other | 58% | 3%

**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 2.6 highlights natural gas consumption by household customers (population) according to months.

![Figure 2.6. Natural gas consumption by household customers (mln m³)](image)

As mentioned above, natural gas consumption in household and non-household customer segment (where natural gas is mainly consumed for heating the buildings) is characterized with sharply expressed seasonality. The difference between natural gas demand in winter and summer is closely related to climate conditions. The maximum demand on energy consumption in winter period in Georgia (that last about 6 months from October till March) is conditioned by falling temperature. In the transition period the level of energy consumption is quite stable until the temperature starts to rise. During spring and summer period any rise in temperature implies decrease of energy consumption. In order to study the relation between

50
natural gas consumption and ambient temperature a statistical data on climate - Heating Degree Day\textsuperscript{18} was applied that measures the difference between ambient temperature and basic temperature.

The information on heating degree days in Tbilisi for the years of 2012-2018 is given on Figure 2.7. As it is obvious from the Figure, the heating degree days are characterized by decreasing trend. Compared to 2018, the number of HDDs slightly increased in 2019, which means that compared to the previous year it was necessary to heat the buildings by more degrees in 2019. In should be mentioned that in 2019 HDD is 112 degree units less than average indicator of the last 8 years.

\textit{Figure 2.7. Heating degree days in Tbilisi}\textsuperscript{19}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{heating_degree_days.png}
\caption{Heating degree days in Tbilisi}
\end{figure}

\textsuperscript{18} 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.

\textsuperscript{19} Information source of the weather is Georgian National Environmental Agency LEPL.
Despite the fact that information illustrated on the Figure 2.7 referred to only the capital of Georgia, it can be assumed that the trend is more or less similar in the whole country. Given the above-mentioned assumption, the Figure 2.8 shows natural gas volume consumed by the household customers by actual volumes and volumes adjusted by HDDs in the years 2012-2019. As it is clear from the Figure, in 2019, the consumption of natural gas by household customers is slightly increased. The consumption increase rate would have grown if not warm winter period in 2019 (mainly due to warm 4th quarter) compared to the last 7-year winter periods. The increase of household consumption is also caused by gasification of new settlements. In 2019, gasification process of new residential areas was still ongoing and as a result, the number of retail customers (household and non-household) amounted 1,308,614 by the end of reporting year (see Figure 2.9). New 69,592 customers were added to the sector in 2019.

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\[20\] according to deviation from average HDD in 2012-2018
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 2.10 highlights the consumption of natural gas per one household customer by regions in urban and rural areas.

Natural gas in consumed by the population and majority of companies for cooking, heating water and apartment. The increase of gasification of new settlements and connection of new subscribers to the network can be mainly detected in the group of those customers that consume natural gas only for cooking. On average, 61% of customers annually consume 253 m³ of natural gas.

Based on the arrangement 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 0.61 GEL/m³ and for the commercial customer connected to the transportation system the similar Figure exceeded 0.74 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 on Figure 2.11.

![Figure 2.11. Structure of natural gas consumption tariff](image)

In 2019, the Commission agreed investment plans of Georgian Gas Transportation Company LLC, Tbilisi Energy LLC (former KazTransGas Tbilisi LLC), Taba LLC, Varketilairi LLC, Sachkheregazi JSC, Telavgazi LLC for the years of 2019-2022 for the purpose of calculation the natural gas distribution/transportation, wheeling and consumption tariffs. Total planned investments amounted 108.2 mln GEL.

### 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.

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21 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.

22 Among them, the distribution license of Dighomi Villa Gas LLC is not in force.
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 2.12.

1. The capacity of the pipeline (Mozdok-Saguramo) from Russia is 20 mln m³/day. Natural gas is transported to Armenia through this pipeline.
2. The capacity of the pipeline (Kazakh-Saguramo) from Azerbaijan is 5 mln m³/day.
3. The designed capacity of the pipeline (South Caucasus Pipeline) from Azerbaijan is 18 mln m³/day. However, it has one connection point to the Georgian transportation system the capacity of which constitutes 3.25 m³/day.
4. Injection of natural gas from entry points of local extraction depends on average daily production of natural gas.
5. Total capacity of reversible main gas pipeline to Armenia is 3.14 mln m³/day.
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, preparatory works are ongoing for the construction of the natural gas storage.

In 2017, the Commission set the normative loss to the transportation licensee for the first time pursuant to Calculation Methodology of Natural Gas Normative Losses in the Transportation System 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 2018-2019 the losses decreased in the natural gas transportation system. The volume of normative losses in the natural gas transportation system is highlighted on Figure 2.13.

2.2.2. Natural Gas Distribution

By December 31, 2019, 25 distribution licensees operated in Georgia. Three of them are large licensees (Tbilisi Energy LLC, Socar Georgia Gas LLC, SakOrgGas JSC). Three large distribution licensees allocated 89% of total distributed natural gas (see Figure 2.14).
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 the licensees in the natural gas sectors to the following activities: natural gas transmission, natural gas distribution, operation of natural gas storage system, operation of LNG facilities, operation of natural gas market. The license is issued for a lifetime.

In 2019, one application on issuing natural gas distribution license was reviewed in the Commission. The above-mentioned decision of the Commission was appealed and in 2019 based on the decision of the court the Commission issued the natural gas distribution license to Dighomi Villa gas LLC.

In the reporting period 5 distribution licenses were modified, in particular, the amendments were made to the licensees of Inrtergazi LLC, SakOrgGas JSC, Socar Georgia Gas LLC, Telavgazi LLC and Varketilairi LLC and their scopes were expanded.

In 2019, one natural gas distribution license was revoked issued to Ambrolaurgazi JSC. The above-mentioned company no longer owned the natural gas pipeline/distribution network through which it distributed the natural gas. Moreover, for several years the company had not reported to the Commission as envisaged by the legislation and did not have authorized representative. Due to this fact, the registered data related to the company was not valid. In addition, based on the natural gas distribution license issued pursuant to Decision №34/2 of the Commission of December 18, 2013, SakOrgGas JSC carried out natural gas distribution activity through distribution network in the scope of Ambrolaurigazi JSC. By taking the above-mentioned, revoking the license of Ambrolaurigazi JSC would not cause more damage that operation of the license and accordingly, the Commission made a decision to revoke the license of Ambrolaurigazi KSC.
It is noteworthy that once a new law becomes effective, the holders of natural gas distribution and transportation licenses shall be imposed obligation of re-authorization. Natural gas distribution and transportation licenses issued before the law enters into force remain valid and their holders carry out the relevant services until unbundling is finished in accordance with the law. The validity of these licenses will be automatically terminated upon issuing of a new license on the basis of the law.

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 on the Figure 2.16 showing that the difference between natural gas calorific values received in the natural gas transportation system of Georgia during the year is minimal.
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 was 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. Before 2019, while calculating natural gas supply, transportation, distribution, wheeling and consumption tariffs, the cost-plus regulation principles recognized by the international practice is used, according to which the Commission set tariffs for the several natural gas distribution licensees in 2017-2019. Since 2020, the Commission has deemed it appropriate to switch to long-term incentive regulation principles of tariff regulation in natural gas sector. This will provide incentives to increase efficiency, ensure stable operation, reimburse reasonable costs and gain fair profit.

In 2016-2017, in the framework of Twinning Project, E-Control Austria and National Commission for Energy Control and Prices (NCC) of Lithuania in cooperation with GNERC the project “Strengthening Capacities of Georgian National Energy and Water Supply Regulatory Commission in Regulatory Cost audit and Market Monitoring” (GE/23) was implemented. In the framework of above-mentioned project the experts shared the best practice with the Commission for regulatory purposes on cost audit of a licensee based on which the Commission developed a draft on Regulatory Cost Audit Rules in the Natural Gas Sector.

The purpose of above-mentioned rules is to define the regulatory audit rule and principles for the costs incurred during tariff regulation of natural gas sector licensees and natural gas suppliers (which are subject to tariff regulation of the Commission) pursuant to the legislation and also determine the extent of

![Figure 2.16. Average calorific values of natural gas imported in Georgia by months (kcal/m³)](image-url)
fulfillment of obligations imposed on the undertaking subject to tariff regulation for a specific regulating activity in terms of arising, justification, reasonability and proper recording of necessary costs.

Accordingly, by the Resolution of the Commission №23 of October 22, 2019, the amendments were made to the Resolution of the Commission №33 of December 25, 2014 that approved Natural Gas Tariff Calculation Methodology and Regulatory Cost Audit Rules in the Natural Gas Sector based on the incentive regulatory principle.

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 set the consumption tariff of natural gas supply after July 1, 2017”.

Based on the cost-plus regulation principle the Commission carried out tariff regulation in 2019 tariff year for several natural gas undertakings. In particular, the Commission set natural gas transportation tariff for a transportation licensee Georgian Gas Transportation Company LLC and calculated tariffs for natural gas supply, distribution, wheeling and consumption for natural gas distribution licensees such as, Tbilisi Energy LLC (Former KazTransGas Tbilisi LLC), Socar Georgia Gas LLC, SakOrgGas JSC, Tabag LLC, Varketilairi LLC, Elektrokavshiri JSC, Sachkheregazi JSC, Telavgazi LLC and Arzu-Gas LLC. Tariff validity period for the above-mentioned distribution licensees was defined as December 31, 2019. Accordingly, once the Commission sets tariffs for natural gas suppliers within their scope the Order on deregulation does not apply to natural persons (population – household customer).

Pursuant to Article 4 of Natural Gas Tariff Calculation Methodology, Tariff regulation period is defined as 3 calendar years. Accordingly, in 2019 long-term tariffs for natural gas transportation, supply, distribution, wheeling and consumption for the years of 2020-2022 were set for the above-mentioned undertakings.
2.3.2.1 Natural Gas Transportation Tariff

On July 4, 2019, 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 Energy and Water Supply and the activity of natural gas transit through the territory of Georgia is not regulated by the Commission.

In the framework of tariff application, the actual investment implemented by the company in 2018 was reviewed and analyzed. In addition, based on the Decision №102/7 of December 13, 2019 the Commission agreed on the planned investments of 2019-2022 which was reflected in the relevant tariff calculation.

Audited data of operational expenses of 2018 submitted by the tariff application was considered as the base of operating expenses of the company for the tariff years. The Commission reviewed submitted operational expenses in detail and set regulatory cost base for the years of 2020-2022.

As a result, by the Resolution of the Commission №38 of December 24, 2019, the amendments were made to the Resolution of the Commission №30 of December 30, 2005 on Natural Gas Tariffs and the natural gas transportation tariff was approved for GGTC LLC which is valid from January 1, 2020 till December 31, 2022.

2.3.2.2. Natural Gas Distribution Tariffs

In 2019, based on the tariff applications of Socar Georgia Gas LLC, SakOrgGas JSC, Tbilisi Energy LLC (former KazTransGas Tbilisi LLC), Tabla LLC, Varketilalairi LLC, Elektrokavshiri JSC, SachkhereGazi JSC, Telavgazi LLC and Arzu-Gas LLC, the Commission calculated and set the relevant tariffs for natural gas supply, distribution wheeling and consumption. In particular:

Socar Georgia Gas LLC submitted a tariff application to the Commission on July 18, 2019 requesting to set natural gas supply, distribution, wheeling and consumption tariffs.

It is noteworthy to mention the following circumstance: based on the Decree №888 of President of Georgia of December 25, 2008 on Providing the Regions of Georgia with Natural Gas Supply and Measures to be taken to Attract the Investments in the Relevant Field, the real estate purchase agreement was concluded on December 26, 2008 between the Ministry of Economy and Sustainable Development of Georgia and Socar Georgia Gas LLC. In accordance with the agreement, the shares of natural gas distribution regional company were transferred to Socar Georgia Gas LLC with specific conditions. Pursuant to the amendments and addendum of December 8, 2014, Socar Georgia Gas LLC was imposed the obligation to invest 250,000,000 USD by the end of 2017 for the purpose of gasification of 250,000 potential customers. In addition, the part of investment costs in the amount of 150,000,000 USD shall be considered when calculating natural gas distribution tariff no earlier than 2020. In addition, by the last amendments of the agreement the subject of investment obligation together with Socar Georgia Gas LLC was defined
SakOrgGas JSC and Socar Georgia Gas Distribution LLC, and the investments already implemented by the above-mentioned companies regarding gasification would be deemed as the investment obligations to be implemented by the Socar Georgia Gas LLC. By considering the provisions of the purchase agreement of the above-mentioned assets, 150,000,000 USD equivalent in GEL investment was not reflected in tariff calculation in 2017, 2018, and 2019.

In 2019, negotiations were ongoing between Ministry of Economy and Sustainable Development of Georgia and the investor regarding reflection of investment obligations of the licensee in the tariff. The Ministry assumed to finalize the negotiations with the company by the end of the year by taking their dynamics and complexity into account. However, it did not occur as assumed.

Considering that the agreement reached would have a significant impact on the determination of the natural gas distribution tariff of Socar Georgia Gas LLC, the Commission considered it appropriate to take into account the agreement reached during negotiations and only then make its decision.

Besides, on July 17, 2019, in accordance with the requirements of the tariff methodology SakOrgGas JSC submitted to the Commission the tariff application requiring the calculation of natural gas supply, distribution, wheeling and consumption tariffs. During the study and analysis of the tariff application, in the same way, the results of the above-mentioned negotiations could have a significant impact on the calculation of capital expenditures of SakOrgGas JSC, since SakOrgGas JSC, together with Socar Georgia Gas LLC, was defined as subject of obligation.

Pursuant to Subparagraph (c) of Paragraph 1 of Article 30 of the Law of Georgia on Energy and Water Supply, for the purposes of fulfilling its duties envisaged in the Article 29 of the same law, in case of delaying setting of tariffs of public services envisaged by Article 9 of this Law and transmission and distribution activities, the Commission is authorized to set temporary tariffs for transmission, distribution and public services envisaged in Article 9 of this Law and define respective compensation measures if final tariffs are different from temporary ones. Based on the above-mentioned legal terms, by the Resolutions №49 and №50, of December 30, 2019 the Commission set temporary tariffs of natural gas distribution for Socar Georgia Gas LLC and SakOrgGas JSC with validity period from January 1, 2020 till June 30, 2020.

As for supply tariff, based on the information presented from the Ministry of Economy and Sustainable Development, for the purpose of maintaining natural gas consumption tariffs for population on the current levels, the Ministry developed a mechanism to decrease a purchasing price on so called “social gas” for household customers in licensed areas of natural gas sector.

Considering the above-mentioned mechanism, natural gas supply tariffs were approved for Socar Georgia Gas LLC and SakOrgGas JSC with validity period from January 1, 2020 till December 31, 2022.

As a result, temporary tariffs on natural gas consumption were set for Socar Georgia Gas LLC and SakOrgGas JSC and the relevant tariffs for 2020-2022 tariff years will be calculated in 2020.

Natural gas supply, distribution, wheeling and consumption tariffs were set for Tbilisi Energy LLC, Taba LLC, Varketilairi LLC, Energoavshiri JSC, Sachkheregazi JSC, Arzu-Gas LLC, Telavgazi LLC for the period of 2020-2022. The companies submitted the tariff applications to the Commission pursuant to the requirements of tariff methodology. In the process of reviewing tariff applications, the Commission analyzed both the actual technical and economic indicators of 2018 and the actual data of past months of 2019. The result has been reflected in the relevant tariff calculations together with 2019-2022 planned investment plan approved/agreed with the Commission individually for each undertaking. In the framework of calculation the natural gas supply tariff, the information has been taken into account presented from the Ministry of Economy and Sustainable Development, regarding the mechanism developed by the Ministry to decrease a purchasing price on so called “social gas” for household customers.
in licensed areas of natural gas sector from January 1, 2020, for the purpose of maintaining natural gas consumption tariffs for population on the current levels. Using this mechanism individually to each licensee, natural gas consumption tariffs for the period of 2020-2022 remained almost the same for Tbilisi Energy LLC, Varketilairi LLC, Energokavshiri JSC, Sachkheregazi JSC, Arzu-Gas LLC and Telavgazi LLC.

Tariffs were approved for above-mentioned licensees by the Resolutions №39, №40, №41, №42, №43 and №44 of December 25, 2019 and by the Resolution №48 of December 27, 2019 with validity period from January 1, 2020 till December 31, 2022.

The final consumption tariffs set for the abovementioned licensees’ area are illustrated on Figure 2.17 by separate components.

![Figure 2.17. Final consumption tariffs of natural gas for household customers (Tetri/m³)](image)

By 2019, 26 companies hold the natural gas distribution license in the natural gas sector. Among them, the natural gas supply, distribution, wheeling and consumption tariffs were set for 9 companies, pursuant to the new tariff methodology. The relevant tariffs for the rest companies will be calculated in the nearby future, in accordance with the principles of a new tariff methodology.

Having regard to the above, in 2019 the Commission announced tender on purchasing audit service through Unified Electronic System of State Procurement system. The aim of the procurement is to identify values of assets of regulated asset base for tariff regulation purposes with unified procedures and methods. The following natural gas distribution licensees were identified as auditees: Chiraghdni XXI Saukune LLC, Didi Dighomi LLC, Kamari M LLC, SG Gas Company LLC, Mamedi LLC, Chiraghdni LLC, Gaztrans Service LLC, Gasko+ LLC, DVS LLC, Gama LLC, Energia+ LLC, Gogochuri & Company LLC, Vake LLC and Akriani 2006 LLC.
Baker Tilly Georgia LLC was identified as a winner of the above-mentioned tender. By the Decision of the Commission №18/16 of March 14, 2019 the audit company was tasked to identify the costs of regulatory assets of natural gas the distribution licensees listed above in the framework of terms of reference and the companies were instructed to present all supporting primary documentation and information to the audit company. Considering the above-mentioned decision, the agreement was concluded between the Commission and audit Company, in the framework of which the costs of regulated asset base were identified for each licensee after documentary verification and analysis and active participation of the Commission in coordination process. The Commission plans to set the natural gas supply, distribution, wheeling and consumption tariffs for above-mentioned licensees in the future taking into account individual audit reports on cost of regulatory asset base prepared by the independent audit company.

2.3.3. Analysis of Investment Project Implementation

According to the unaudited information provided by the 4 largest companies in the natural gas sector, the planned investment for 2019 amounted 138,990,000 GEL and actual performance was 143,252,000 GEL (Figure 2.18).

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 Tbilisi Energy LLC (former KazTransGas Tbilisi LLC), Socar Georgia Gas LLC and SakOrgGas JSC. The actual investments made by the above-mentioned licensees in reporting year according to their activities are illustrated on Figure 2.19.
2.3.3.1. Natural Gas Transportation

The amount of planned investments in 2019 for high pressure transportation main gas pipelines was 32,719,852 GEL, however, actual performance amounted 23,173,389 GEL, from which 83.31% (19,306,851 GEL) was financed by the Georgian Oil and Gas Corporation LLC and 16.69% (3,866,537 GEL) – by Georgian Gas Transportation Company LLC.

The above-mentioned investments were mainly used for the construction and rehabilitation of main gas pipelines (18,560,350 GEL).

In the reporting year, means of metering were installed, fixed assets for the office, special and communication equipment were purchased, administrative building (office) was built and etc. (4,613,038 GEL).

2.3.3.2. Natural Gas Distribution Activity

In 2019 the volume of planned investments in natural gas distribution sector accounted for 61,885,199 GEL, including Socar Georgia Gas LLC – 34,000,000 GEL, SakOrgGas JSC – 9,650,000 GEL and Tbilisi Energy LLC (former KazTransGas Tbilisi LLC) - 18,235,199 GEL. The actual investments amounted 120,572,438 GEL, including 112,559,387 GEL – with own funds and 8,013,051 GEL – with the third party (customer) financing.

In 2019 the significant part of actual investments - 61.56% i.e. 54,646,000 GEL were made by Socar Georgia Gas LLC in the distribution sector, which constructed and put into operation 155.47 km natural gas distribution network in the reporting year ensuring the gasification of 2,393 new potential subscribers. In the same year, the company purchased natural gas pipelines from the state and paid 44,835,000 GEL. In addition, 30,488 new subscribers were connected to the network. In 2019, SakOrgGas JSC made
investments only with own funds and amounted 9,855,000 GEL. Therefore, 15.55 km new gas pipelines were constructed by the company in the different regions in the reporting year. The existing network was rehabilitated and 12,081 new subscribers were connected to the distribution network.

As for Tbilisi Energy LLC, the planned investments of the company was 18,235,199 GEL and the actual investments amounted 36,495,878 GEL, including 28,482,827 GEL – with own funds and 8,013,051 GEL - with the third party financing. Investments were made for construction and rehabilitation of gas pipelines, purchasing special transport for emergency service, metering equipment, gas pipeline tools, office equipment, intangible assets, gasification of new customers, moving the meters outside the customers’ territories and etc. As a result, the procurements significantly contribute to the safe supply of natural gas to the city, natural gas pressure control, reduction/elimination in the number of accidents, arrangement of metering, reduction of natural gas technical and commercial losses. In the end, all of the above provides improved customer service.

The investments in the distribution network made by companies are shown on Figure 2.20.

![Figure 2.20. Investments in natural gas distribution network by companies (1000 GEL)](image)

2.3.4. Tariff Benchmarking

For the purpose of assessing a tariff burden existing in Georgia, Table 2.3 and Figure 2.21 represent the existing tariffs of natural gas household sector in different countries.
<table>
<thead>
<tr>
<th>Country</th>
<th>Household Tariff (Tetri/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>26.23</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>34.08</td>
</tr>
<tr>
<td>Georgia</td>
<td>55.13</td>
</tr>
<tr>
<td>Turkey</td>
<td>69.05</td>
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<tr>
<td>Armenia</td>
<td>89.81</td>
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<tr>
<td>Ukraine</td>
<td>92.64</td>
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<tr>
<td>Moldova</td>
<td>103.05</td>
</tr>
<tr>
<td>Serbia</td>
<td>116.24</td>
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<tr>
<td>Bosnia and Herzegovina</td>
<td>116.24</td>
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<tr>
<td>Hungary</td>
<td>120.05</td>
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<tr>
<td>Romania</td>
<td>120.40</td>
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<td>Croatia</td>
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<td>Latvia</td>
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<td>Luxemburg</td>
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<td>Bulgaria</td>
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<td>Estonia</td>
<td>158.91</td>
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<td>Poland</td>
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<td>United Kingdom</td>
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<td>Belgium</td>
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<td>Slovenia</td>
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<td>Netherlands</td>
<td>319.56</td>
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<td>Sweden</td>
<td>410.47</td>
</tr>
</tbody>
</table>

*Table 2.3. Natural gas household tariffs in European countries (Tetri/m³)*
Figure 2.21. Natural gas household tariffs in different countries of Europe (Tetri/m³)
3. Water Supply Sector

3.1. Regulatory Framework

Regulation of water supply sector has been within the competence of the Commission since 2008. The water supply sector is regulated based on the following primary and secondary legal acts:

— Law of Georgia on Electricity and Water Supply;
— 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”;

3.2. General Overview of the Sector

Based on the data of December 31, 2019, 9 licensees operate in the water supply sector of Georgia.

According to the data provided by the National Statistics Office of Georgia, the population of Georgia was 3,723,500 by January 1, 2020. The 63.5% of the population (2,365,052 persons) is supplied with water by licensed companies, whereas 36.5% (1,358,448 persons) is supplied through water supply systems that are under the ownership of local municipalities. Total number of customers increased by 6% compared to previous years and reached 60,240 (see Table 3.1)

<table>
<thead>
<tr>
<th>N</th>
<th>Name of the Licensee</th>
<th>Number of Consumer</th>
<th>Consumers per capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Georgian Water and Power LLC (GWP)</td>
<td>540,951</td>
<td>1,222,732</td>
</tr>
<tr>
<td>2</td>
<td>Georgian United Water Supply Company LLC (UWSCG)</td>
<td>338,682</td>
<td>760,732</td>
</tr>
<tr>
<td>3</td>
<td>Batumis Tskali LLC (BWC)</td>
<td>96,775</td>
<td>197,673</td>
</tr>
<tr>
<td>4</td>
<td>Rustavis Tskali LLC (RWC)</td>
<td>53,943</td>
<td>123,069</td>
</tr>
</tbody>
</table>
Table 3.1. Basic data according to water supply licensees

Out of the licensees operating in the water supply sector, 5 companies are under the state or municipal ownership, whereas 4 are under the private ownership.

3.3. Licensing and Monitoring Terms of Licensing

Licensing:

According to the Article 161 of Law of Georgia on Energy and Water Supply (came into force on December 28, 2019) the water supply licensees were obliged to apply the Commission for authorization (renewal of the license) within 2 months upon the enactment of the law. This requirement was duly complied with, however, the list of documents submitted by licensees was incomplete and the Commission considered it as deficient and set additional time for licensees until November 1, 2020.

Table 3.2. General characteristics of water supply licensee enterprises
Monitoring Compliance with the Licensing Conditions

The Commission is permanently monitoring implementation of licensing conditions by water supply licensees through various tools on the basis of the reporting forms submitted to the Commission by licensees. On November 14, 2019 the Commission adopted new uniform reporting forms for licensees under the Decision №91/16 at the public hearing. Through those reporting forms the Commission receives all necessary information, which is essential for implementation of existing regulations. Moreover, in contrast to the old reporting forms, new forms provide better opportunity for determining more precision and reliability of the information which is relatively important for making decisions based on the received data.

For the purpose of verifying information submitted by the licensees through reporting forms the Water Supply Department of the Commission regularly conducts on-site studies of water supply systems, owned by licensees. Moreover, with the involvement of various representatives, the Water Supply Department observes the process of water supply quality improvement measures taken by licensees.

Within the framework of the monitoring process, the employees of the Water Supply Department were sent to business trip to Tkibuli, in order to examine existing conditions of water supply systems. After scrutinizing current conditions it turned out that drinking water treatment plant of Tkibuli was in an unfavorable condition, hence National Food Agency of Georgia and Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia were informed about it.

Based on the examination of existing situation of water supply system of Tkibuli, the explanations provided by licensee and the conclusion presented by National Food Agency of Georgia, on November 28, 2019 the Commission adopted Decision №95/10 (on the conditions of water supply systems in Tkibuli owned United Water Supply Company of Georgia LLC) which obliges a licensee to harmonize drinking water treatment cycle extracted from Shaori Reservoir and other relevant measures with technical Regulation of Government of Georgia until September 30, 2020.

Besides the above-mentioned, the employees of the Commission are intensively monitoring implementation of adopted decisions. Based on the Commission’s Decision №77/12 of September 12, 2019 United Water Supply Company of Georgia LLC was charged with 5,000 GEL fine due to the violation of license terms. Licensee’s failure to implement the Decision №25/3 of the Commission of April 15, 1016 was the premise of imposing charges. According to the Decision the licensee had to ensure stiffening of the monitoring of drinking water quality over major water supply system plant of Lagodekhi municipality and take an appropriate measures accordingly.

At the public hearing the Commission adopted Decision №1/12 on January 9, 2019 regarding improvement of technological processes of drinking water treatment by Marneuli Soplistskali LLC, which obliged the licensee to implement disinfection procedures according to regulations and standards existing in Georgia. For monitoring the implementation of the above-mentioned decision, the employees of the Commission were sent to Marneuli municipality for a business visit to inspect disinfection processes of
drinking water and chlorination stations of the water supply system. Several irrelevances were detected during this visit, hence National Food Agency of Georgia was informed about it and unscheduled inspection of chlorination stations of drinking water was required. According to the information provided by the Agency the licensee had several failures in the chlorination process of the drinking water and therefore extra timeframes were determined for its improvement.

The Water Supply Department of the Commission studied causes of repeated damage of water pipeline located nearby Zhvania square, at Mgaloblishvili Street, in Tbilisi owned by Georgian Water and Power LLC. In relation to this fact the Commission requested the licensee to submit the information about causes of the accident and expenses due to the accident. The above-mentioned issue was discussed by the Commission at the public hearing on July 11, 2019 and it considered expenses for the accident recovery as imprudent, therefore, they were not reflected in tariffs of the licensee and subsequently is not supposed to be paid by customers (31,680.7 Gel).

Based on the Commission’s Decision №104/24 of December 20, 2019 Kobuletis Tskali LLC was charged by 5,000 GEL fine, due to the violation of the licensing conditions. Moreover, failure to submit annual reports on the commercial activities, annual reporting forms of service quality and annual financial and audit reporting forms of 2018, determined by the Decision №92/18 of November 15, 2019 by the Commission, were considered as the violation of the licensing conditions. It is notable that before imposing the fine on the licensee, at the public hearing of the Commission on November 15, 2019, according to the adopted Decision №92/18, additional time 15 days, were given to Kobuletis Tskali LLC for complete submission of the above-mentioned legal acts. Under the same Decision, it was clearly defined to Kobuletis Tskali LLC that failure to implement the terms of the decision completely and in a timely manner would be considered as violation of the licensing conditions and would lead to imposition of fines, however, the licensee did not submit the above-mentioned documentation within the timeframe determined by the Commission.

The Commission plans to intensively monitor the implementation of the licensing conditions by licensees in the future and take appropriate measures accordingly.

3.4. Continuity of Water Supply and Metering

The information on the metering of each licensees is provided on Figure 3.1. From the presented information, it can be clearly observed that Soguri LLC and Kobuletis Tskali LLC do not have metered household customers. Among other licensees Georgian Water and Power LLC has the lowest indicators of metered customers (≈34%), whereas Sachkhere Tskalkanali LLC has the highest metering indicator (≈99%). The number of metered consumers of 2019 increased most significantly for Georgian Water and Power LLC (by 21%).

The indicators of uninterrupted water supply for each licensee by December 31, 2019 are provided on Figure 3.2. 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. In the service area covered by United Water Supply Company of Georgia LLC, average duration of water supply to the consumers is 16.4 hours.
It should be mentioned, that in some cases customers that are provided with the drinking water less frequently, consume more water (see Figure 3.3). For example: average indicator of water supply in Imereti region is 15 hours and the volume of consumed water in one day per person constitutes 163 liters, while in Samtskhe-Javakheti region having 22 hours water supply, the volume of consumed water in one day per person constitutes 104 liters. It can be concluded that frequent interruptions of drinking water supply and schedule of water supply force consumers to take other measures such as, create drinking water reservoirs that increase the indicator of drinking water consumption.

The existence of non-metered household customers also has significant impact on the above-mentioned indicators (see Figure 3.4.). As this Figure shows, in the regions having the shortest water supply schedule, the metering percentage constitutes 55% in average compared to the number of metered household customers.

The Commission intensely works with the companies to precisely define other matters and prioritize the metering, along with 24-hour water supply issues.
The information on the consumption of drinking water per one metered consumer is provided on Figure 3.5. As it was mentioned above, Kobuletis Tskali LLC and Soguri LLC do not have metered household customers. Therefore, the information on these licensees is not provided. From other licensees the customers of Marneulis Sopskali LLC have consumed the least volume of water (103 liters per person within 24 hours) and Mtskhetis Tskali LLC has the highest indicator of water consumption (354 liters per person within 24 hours).

In the whole country the average volume of drinking water consumption per person (metered segment) within 24 hours constitutes 159 liters.


Figure 3.3. Correlation between the schedule of water supply and drinking water supply consumption per person according to the territorial units (Georgian United Water Supply Company LLC)
Figure 3.4. Correlation between the schedule of water supply and metering level according to the territorial units (Georgian United Water Supply Company LLC)

Figure 3.5. Consumption of drinking water per person according to the licensees (liter/per person/within 24 hours)

3.5. 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 licensee. 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.

The information on the frequency of damages of pipelines is provided on Figure 3.6. In 2019 the highest number of accidents is observed in Georgian Water and Power LLC (353 accident per 100 km network) and in Georgian United water Supply Company LLC (354 accident per 100 km network).

In addition to the frequency of damages, the information on the connected customers for each 1 km network on average is also relatively important to assess the proper functioning of the systems and reliability (see Figure 3.7.).
Figure 3.6. Frequency of damages (accidents) of drinking water pipelines according to the licensees (accident/per 100 km network/year)

Figure 3.7. Density of connections of the consumers to the water supply system according to the licensees (consumer/network km)
In this direction Batumis Tskali LLC has the highest indicator in the household and non-household segments (household segment - 370 non-household segment - 66).

Figure 3.8. provides the information on the volume of drinking water and non-revenue water.

![Bar chart showing percentage of sold and non-revenue drinking water according to licensees (in %)]

**Figure 3.8. Percentage of sold and non-revenue drinking water according to licensees (%)**

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 consumers and usage of drinking water for own purposes.

Provided information clearly demonstrates that companies with highest indicators of non-revenue water also have the lowest indicators of metered customers. According to the information presented on Figure 3.9 during the reporting year 791mln m³ water was extracted for the purpose of providing the customers with drinking water.
3.6. Investments and Tariffs

3.6.1. Investments

The Resolution №27 on approving Investment Appraisal Rules was approved by the Commission on November 22, 2019 for the development of the sector and promoting implementation of investment projects.

The Investment Appraisal Rules cover the following major directions:

1. Creates more stable environment for the investors and encourages investments in water supply sector.
2. Gives incentives to licensees, moreover obliges them to plan and implement investment projects more effectively.
3. Determines Appraisal criteria for evaluating major working directions of licensees. Licensees are obliged to improve existing levels of criterions, hence those advanced criterions will encourage improved service for customers for more rational price.

Key appraisal indicators of investment projects are taken according to the best practices, which are the following:

✔ Supplied Drinking Water Quality Index (DWPQ);
Service Coverage Area – Drinking Water (DWCA);
Uninterrupted Drinking Water Supply (CS);
Service Coverage Area - Sewerage (WWCA);
Quality of Liquid discharge into reservoirs through sewerage system (WWPQ);
Coverage Area – Fire Hydrants (FH);
Pipe Burst Index (Drinking Water) (DWPB);
Pipe Burst Index (Waste Water) (WWPB);
Drinking Water Infrastructure Leakage Index (ILI);
Staff Productivity Index (SPI);
Network Flexibility Index (WPFI).

For the purpose of ensuring each customer with water supply service according to proper rules by water supply licensing companies, rehabilitation of existing network, construction of new network and installation of individual meters 329 projects worth of 3 million GEL investment were implemented by two major licensees in 2019 - Georgian Water and Power LLC (operating in Tbilisi) and United Water Supply of Georgia LLC (operating on the almost whole territory of Georgia, except Autonomous Republic of Adjara, Tbilisi, Mtskheta and Rustavi) (see Figure 3.10.).

Figure 3.10. Investments in Water Supply sector
3.6.2. Tariffs

3.6.2.1. Legal and Methodological Basis

Tariff calculation issues in the 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 encompasses 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, similar to electricity and natural gas sectors.

It is important to mention that the project “Strengthening Capacities of the GNERC in Regulatory Cost Audit and Market Monitoring” (GE/23) was implemented within the Twinning project by cooperation between Energy Regulatory Authority (E-Control) (Austria), National Commission of Energy Control and Prices (NNC) (Lithuania) and Georgian National Energy and Water Supply Regulatory Commission. Within the framework of this project experts shared to the Commission best international practice regarding cost audit of licensees for regulatory purposes and on its bases the Commission approved the Rule of Cost Regulation Audit in the water supply sector.

Regulatory Cost Audit Rules in the water supply sector aim at determining, rules and principles of the regulatory cost audit carried out in the tariff regulation process in accordance with the legislation, as well as determining whether the company complies with its obligations in terms of incurring, justifying, reasoning and proper accounting of the costs necessary for the specific regulated activity.

3.6.2.2 Current Tariffs of the Sector

According to the principles determined by the existing tariff methodology, in 2017 new water supply tariffs were set for Georgian Water and Power LLC, Mtskhetis Tskali LLC and Rustavis Tskali LLC that are valid from January 1, 2018 to December 31, 2020 (see Figure 3.11.). Therefore, in 2018 and 2019 new water supply tariffs were not determined by the Commission.
* Water Supply Tariffs are determined by local municipalities for presented licensees

Figure 3.11. Current Tariffs (GEL, including VAT).
4. Methodological Activities

The following measures and activities were carried out by the Commission with direct involvement and contribution of the Regulation Improvement and Methodological Support Department of the Commission:

4.1. The Amendments Introduced in the Secondary Legislation

The Commission introduced amendments in “Supply and Consumption Rules” and “Service Quality Rules” in order to address the challenges in the energy and water supply sectors, as well as take into account consumer complaints/applications and different surveys. The amendments covered each sector based on specificity of regulation. Furthermore, in order to approximate/converge sectors and develop common terms and conditions for energy and water supply customers, amendments of general nature were introduced in “Supply and Consumption Rules” of all three sectors.

4.1.1. Electricity Sector

A group of customers can now use the net-metering system through a micro generation power plant connected to the distribution network. Furthermore:

- the standard for connection of micro generation power plant to the distribution network was developed, which duplicates procedure of a new customer (a full technological cycle of service through one contact);
- a group of retail customers can now jointly possess micro generation power plant and supply the generated electricity to the distribution licensee;
- final settlement period was modified and if earlier the settlement was carried out at the end of the year, according to new amendments, May 1 was defined as the settlement period in order to enable customers to utilize efficiently credits accumulated during the summertime. In addition, through utilization of the credit, the distribution licensee will avoid its cash-out;
- based on the above-mentioned amendments, the relevant decrees of the Minister of Finance of Georgia were renewed.

In parallel with the review of connection fee, the paragraph of the Rule that enabled the licensee (in case of necessity) to double the connection period in case of construction of 6/10 kV voltage network was repealed. The observation made it evident that doubling the connection period unilaterally brought ambiguity in the relation between the connection applicant/seeker and the distribution licensee, namely in frequent cases the connection applicant/seeker did not know the connection period, inflicting damage to him/her and placing him/her in unequal conditions compared to the distribution licensee.

The rule on calculation of fee for increasing capacity was modified. If increased (requested) capacity and/or requested voltage level switches to another package for connection of a new customer to the distribution network, the customer shall pay the difference between the fee for relevant package of connection of the new customer to the distribution network and the fee for that package of connection of the new customer,
which corresponds to the existing connection capacity of the customer. The above-mentioned amendment resulted in change of fee for connection of a facility to 6/10 kV network.

Customers have an opportunity to present bank guarantee to the licensee when requesting the deposit.

Licensees are entitled to request deposit or bank guarantee for recovery of costs for consumed electricity to those customers whose average monthly consumption exceeds 50,000 GEL. The above-mentioned change was provoked by unfair practice/activities of consumers. The risk of being in debt to the licensee has been significantly reduced.

The amendments introduced to the “Electricity (capacity) Supply and Consumption Rules” by the Resolution №Resolution № 20 of August 08, 2019 authorizes the distribution licensee to determine a flaw in the application on connection of a new consumer to the distribution network, if conducted survey/examination reveals that the costs associated to that connection significantly exceed the connection fee defined by the Commission. In the above-mentioned case, the licensee used to have to address the Commission and the Commission used to take decision on every single case whether it agreed to determination of a flaw or not.

The companies frequently determined a flaw unreasonably, including cases when the costs for connection of a concrete new customer to the network significantly exceeded the connection fee defined by the Commission, but at the same time the development of network on the above-mentioned territory or improvement of quality of electricity supply to already connected customers were necessary. On the basis of analysis of the above-mentioned circumstances and to guarantee the protection of customers’ rights, the Commission repealed this provision from the electricity supply and consumption rules.

4.1.2. Natural Gas Sector

The rule on publication of price of natural gas to be supplied to a customer on the basis of standard conditions was modified in order to achieve transparency and availability of prices on natural gas retail market, as well as ensure the competition on the market. Namely, if earlier it was mandatory to publish offered prices in the newspaper once in a year, the introduced amendments enable suppliers to publish the above-mentioned information on the Commission’s official webpage in advance, before its publication in other sources of information. The price of natural gas to be supplied to a customer on the basis of standard conditions published on the Commission’s webpage will be renewed in real time, in case of its modification.

Furthermore:

- a customer is authorized to request conclusion of a contract with standard conditions (now with the price published on the Commission’s webpage) and the licensee is obliged to satisfy the above-mentioned request.

The terms and procedures for connection of a new customer to the distribution network were modified. Taking into account challenges in this service, the relation between the distribution licensee and the customers was regulated, namely:

- the distribution licensee was instructed to assign one authorized person to deal with connection applicant/seeker in order to enable applicant to receive complete
information about his/her request. The licensee ought to provide to the applicant the information about the authorized person;

- the distribution licensee when installing one point of internal network is liable to inform the customer at least 2-5 calendar days in advance the time for performance of installation works within the period of connection. The amendment was introduced on the basis of mysterious shopper survey, which made it evident that the time of visit of a representative of the distribution licensee on the facility was not agreed with the customer in advance. It impeded timely execution of works under full technological cycle;

- the distribution licensee immediately after receipt of an application, as well as compilation of an act on commissioning of a meter, ought to inform a customer in the form of a text message about necessary documents and procedures for the start of supply. The customer shall also be notified about the exact time of the start of natural gas supply. This amendment enables the connection applicant/seeker to be informed from the moment of submission of an application about necessary conditions and procedures she/he has to comply to.

The procedures and time-periods for changing a supplier were specified. Furthermore, the distribution licensee can refuse to render services to the supplier, if the latter fails to reimburse costs for filling actual consumption of a retail customer for not supplying natural gas.

4.1.3. Water Supply Sector

A guesthouse owner customer, who buys water at a time for personal consumption, as well as for accommodation of tourists at his/her place and for provision of systematic and organized services to them, is considered as a household customer.

Regarding a settlement model, the Commission approved two types of model and the customer (guesthouse owner customer) is authorized to request one of them. In compliance to the first model, the consumption of water on entire facility of guesthouse owner customer is metered jointly and non-household tariff will apply above 25m³ consumption per month. According to the second model, the consumption of water on the part of the facility that serves tourists is measured separately, meaning non-household tariff will apply only to the part of the facility, which serves tourists systematically and in an organized manner. Consequently, two meters will be installed in case of application of the second model, one of them will be used to meter household consumption and relatively household tariff will be applied and the other will be installed at the facility of the real estate property which serves tourists. In the latter case, an owner of a guesthouse will pay non-household tariff.

Prior to this amendment, all hotels (including guesthouses) were considered as non-household customers and non-household tariff applied to them. The meeting with participation of guesthouse owners and other interested parties was held at the Commission in the process of working on this amendment. The Commission reflected views and suggestions voiced at the meeting in the draft of the amendment project and was decided to apply non-household tariff to the consumption above 25m³ (instead 20m³).
The fee for restoration of water supply including value added tax is GEL 3. It should be mentioned that before the amendment the fee for the restoration of water supply was not reflected in the secondary legislation issued by the Commission. The Commission defined it through the Decision № 33/1 of December 30, 2010 and it constituted 0.50 GEL for household customers and 5 GEL for non-household customers.

### 4.2. Service Quality

The connection of a micro generation power plant to the distribution network was added to the Guaranteed Standard of Service Quality. As a result of the introduced amendment, the Commission through electronic journal controls the deadlines for connection of a micro generation power plant to the distribution network and compensation payments to a customer in case of failure to meet the deadline.

Until January 10 of a calendar year enterprises ought to indicate in the relevant field of the electronic journal the number of subscribers according to regions as of December 31 of previous year.

The formula to calculate average time for restoration of supply per interruption was developed on the basis of analysis of practice.

The influence of deterioration/improvement of average interruption duration (SAIDI) on regulated cost base is only applicable to electricity sector. Consequently, the rate of incentive/sanction on supplied energy has been defined for electricity sector only.

In case of improvement or deterioration of average frequency of natural gas, water supply, the Commission is authorized to increase/decrease regulated cost base for every improved/deteriorated 1 % with 0.01% of regulated cost base.

### 4.3. Uniform Conditions of Service

The rule on announcement about planned and unplanned interruptions of supply on mass-media was modified. The licensee has the obligation to inform every customer individually about planned/unplanned interruption of supply via a text message. Furthermore, if the supply was terminated to more than 2 % of population, but no less than 500 customers, of self-governing unit, the licensee should disseminate information about planned outage in media outlets and in case of unplanned outage - the information should be published on its official webpage.

In case of transfer of a facility into the ownership, an owner of real estate property has been granted with the right to refuse to register as a subscriber, despite the fact whether the temporary owner will be registered as a subscribe or not. To exercise this right, the owner should provide to the licensee the information about the temporary owner.

The fee for the connection of a new customer to the network was modified in all three sectors, depending on the zone, specificity of work to be conducted and associated costs. Namely, the connection fee in self-governing cities increased and in other municipalities connection period extended. Furthermore, the
radius/range of connection of a new 0.4 kV voltage customer to the network decreased from 800 meter to 600 meter in electricity sector, whereas in water sector the activity range of connection fee increased from 100 meters to 200 meters. The period for identification of flaws in the application for the connection of a new customer to the distribution network increased from 5 to 10 working days.

The licensees were charged to identify with identification sign (including visually) those representatives who have direct contact with customers in their service centers. Mysterious shopper survey revealed that it was quite difficult for customers to identify and find representatives of licensees, as well as their service centers.

4.4. The Projects on Improvement Quality of Regulated Services

The Commission constantly strives to create new opportunities/possibilities to improve quality of services for customers. Furthermore, the Commission observes the rendering of services from the position of a customer and strives to create unified system of regulation related to terms and procedures of service provision in all three sectors. It actively cooperates with other institutions to create services directed towards the simplification of licensee’s activities. There are different projects ongoing in the Commission to serve these purposes.

4.5. Unified Electronic Space for Permits

The LEPL “Data Exchange Agency” under the initiative of the Commission created the service on the portal – www.my.gov.ge (my electronic government) that enables interested parties to agree projects of linear structure electronically with private owners of different communication and real estate property in compliance to requirements of the “Law of Georgia on Electronic Document and Electronic Trust Services”. After approval they can apply to municipalities and request final consent/permit for dislocation/placement of the linear structure.

To ensure implementation of the above-mentioned project, the Commission introduced changes with the Resolution № 7 of April 15, 2019 into the Resolution № 23 of the Commission of September 18, 2008 on “Approval of Rules for Activity Control and Licensing in Electricity, Natural Gas and Water Supply Sectors” that entrusts transmission, transportation, distribution and water supply licensees to register on www.my.gov.ge and approve the dislocation/placement of linear structure within 5 working days.

The above-mentioned service significantly simplifies the procedure of implementation of works in energy and other communication sectors and reduces the time for receiving permits/approval. As a result, trust is improved, as well as the connection period is decreased, and administrative procedures and periods are reduced at the expense of improved quality of services.

The licensees owning a network in electricity, natural gas and water supply sector, as well as enterprises in communication sector actively use the service.
4.6. **USSD Codes**

To develop and simplify mobile interactive/on-line services, the Department started to work on unified USSD codes for informing customers. The unified USSD code enables a customer with dialing one code - *303#, to add remotely contact information to the subscriber number in all three sectors; verify the registered contact details and delete unfavorable number; check the balance of a concrete subscriber, the cause and duration of interruption; state the interruption of supply; learn about the number and address of company’s call-center, request resending of electronic bill and last sent text message.

The goal of the project is to increase trust towards electronic services, raise awareness of customers and enable them to request the receipt of information through on-line/interactive services. As a result, customers will be interested to renew their data with companies regulated by the Commission on a continuous basis that will ensure continuous update of customer database and replacement of printed bill with an electronic one. The customer can easily access the information about electricity or water consumption. She/he would not need to queue at hotline to receive the information, which in turn will reduce the work of operators and improve the quality of service they provide. Numerous meetings were held with operators and licensees to make the project possible and the following task-work were carried out:

- the technical assignment was drafted with the involvement of the Department and Ltd. “Macticom”;
- the contact data of persons in charge of project implementation was requested from the companies regulated by the Commission;
- the technical assignment and all necessary documents were sent to the companies regulated by the Commission;
- the contract on USSD service between mobile operators and companies regulated by the Commission was concluded;
- the Commission approved by the decision USSD code (*303#), terms and conditions of USSD service and queueing/priority;
- VPN protected/secured channels have been constructed between mobile operators and companies regulated by the Commission;
- Testing of USSD menu was launched between mobile operators and companies regulated by the Commission.

4.7. **Mysterious Shopper Survey**

The Commission carried out “Mysterious Shopper” survey in 2019 in order to enable customers to evaluate the quality of services provided by utility companies. The survey studied and verified the compliance of services provided by utility companies active in energy and water supply sector to the standards defined by the Commission. The survey identified new violations, it also verified the violations identified during the previous survey and studied the quality of compliance to the recommendations issued by the Commission to the companies.

customers was verified. Namely, the connection of a new customer to the network, increase of capacity, request of personal information by a customer, inspection of technical quality of supply, as well as content/receipt of electronic bill and text messages, termination and restoration of supply due to non-payment, planned outages and call-center services were studied and verified during the survey.

The results of the report confirm that the companies only partially improved systemic violations identified during the previous survey. JSC “Energo-Pro Georgia”, LLC “Socar Georgia Gas”, LLC “United Water Supply Company of Georgia” and LLC “Batumi Water” had improved the content of bill sent via a text message, the registration date indicated in the text message about the registration of an application, etc.

The project was carried out by LLC “4 Service G Sales” based on the contract concluded with the Commission. The company was selected on the basis of an electronic tender announced via unified Georgian electronic Government Procurement (Ge-GP) system (www.procurement.gov.ge).

4.8. Application Forms Approved by the Commission

Renewed typical forms of application were approved in natural gas and water supply sector. The forms were elaborated in a way that a customer knows in advance what information and documentation are necessary for approval of his/her application. The application form maximally reduces the risk of occurrence of mistakes and formulation of request incorrectly. To fill-in or mark the relevant data in the application is mandatory.

4.9. Violation of Licensing Conditions and Sanctioning of Company

- The fine was imposed on JSC “Telasi” due to noncompliance to licensing conditions. The company uploaded counterfeited act about the connection of a new customer to 0.380 kV voltage level and start of electricity supply in the electronic registry envisaged by “Service Quality Rules” approved by the Commission with the Resolution № 39 of December 28, 2018. Consequently, the company collided with requirements of the Commission’s legal act and violated licensing requirements.
- The Commission extended deadline for utilities active in electricity, natural gas and water supply sectors to submit comprehensive and complete 2018 Annual Reports and utilities which failed to submit the requested documentation within the extended deadline were fined. The Commission extended the deadline for electricity sector licensees – LLC “Saknakshiri” and LLC “Adjara Energy 2007” who failed to submit a comprehensive and complete 2018 Annual Report on the basis of decisions No. 68/11 and 68/1 and warned them that failure to submit the requested documents within the extended deadline would be considered as the violation of licensing conditions. The licensees submitted the requested documents within the deadline defined by the Commission in the decisions. Regarding companies, which are active in electricity sector, but do not require license and are liable to submit the annual report, the Commission extended deadline for submission of a comprehensive and complete 2018 Annual Report on the basis of the decision of August 07, 2019. The compliance to the obligation of submission of annual reports is ensured by the fine on the basis of the rule envisaged by the
General Administrative Code of Georgia. The Commission took such decision in relation to LLC “Hydro Georgia”, LLC “Hydro Development Georgia”, JSC “Hesi I”, LLC “Ghoresha”, LLC “Marneulihesi 1931”, LLC “Maksania”, LLC “Kasleti 2”, LLC “Era Georgia” and LLC “Geo Energy”. Only LLC “Ghoresha” and LLC “Era Georgia” from the above-listed companies failed to submit the requested documentation within the extended deadline. Consequently, the Commission issued enforcement papers and the issue (fine) was sent to the Enforcement Bureau for enforcement.

Like in electricity sector, the deadline for submission of comprehensive and complete 2018 Annual Report was extended to licensees in natural gas and water supply sector, namely to LLC “Kobuleti Water” (water supply licensee) and LLC “Gama” (natural gas licensee), on the basis of the Commission’s Decisions No. 92/17 and No. 92/18 of November 15, 2019. LLC “Kobuleti Water” failed to comply to the request and on the basis of the Decision № 104/24 of December 20, 2019 it was fined with GEL 5,000 for violation of the Commission’s request and licensing conditions.
5. Commercial Service Quality

The Commission has been using electronic monitoring system of commercial service quality already for three years. The above-mentioned software was introduced in 2017 to ensure monitoring of implementation of goals defined by the “Service Quality Rules” approved by the Resolution № 39 of December 28, 2018 via modern systems and technologies.

Since November 2017 a new structural unit of the Commission – Commercial Service Quality Department has been controlling 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 significantly improved in the reporting period. Technical and procedural deficiencies have been eliminated. Commercial Service Quality Control Department is working on further improvement of the monitoring program, which means systematization of specific nontypical cases.

“Service Quality Rules” approved by the Commission on December 28, 2018 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. The electronic monitoring system of commercial service quality monitors the following general and guaranteed standards envisaged by the Resolution:

- **Overall 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;
  4. Decreasing average duration of termination of electricity supply;
  5. Decreasing average duration of termination of natural gas/water supply.

- **Guaranteed Standard:**

  1. Restoration of the supply to the customers disconnected due to nonpayment: 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/increase of capacity – 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;
7. Issuing technical condition for connection of a new customer – deadline 10 working days;
8. Arrangement of metering node and network in-cut - deadline is determined according to the package chosen by the customer;
9. Connection of a micro generation power plant - deadline is determined according to the package chosen by the customer.

Customers’ applications submitted to the regulated utilities, the information on planned and unplanned terminations, the information on connection of new customers and recovery of supply for the customers disconnected due to nonpayment, are automatically recorded in the Commission’s database, for the purpose of effective control over compliance with the abovementioned 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 2017-2019 are given below according to the sectors.

**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 supply to the customers disconnected due to non-payment

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

Figure 5.5. Checking metering devices on spot in response to application of customers
Figure 5.6. Registration as a subscriber

Figure 5.7. Connection of a new customer

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

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 nonperformance of services:

- in case of non-compliance with the standards related to the connection of a new customer to the network/increasing capacity, arrangement of metering node in electricity, natural gas and water supply.
supply sectors and connection of micro generation power plant in the electricity sector 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. As of 2019, in case of missing the deadline for connection to the network (system) in the electricity, natural gas and water supply sectors 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 2019](image)

In 2019, due to the violation of guaranteed standards, the distribution companies paid 818,235 GEL to the customers as compensation. Out of this amount, 691,245 GEL was paid due to violation of the standard for connection a new customer to the network and 126,990 GEL for the violation of the rest of the guaranteed standards that is allocated as follows:
Figure 5.10. Accrued compensations in 2019 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 2017-2019 according to the distribution licensees is highlighted in the Table 5.1.

Utilities with Accrued Compensation (GEL)

<table>
<thead>
<tr>
<th>Utility</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLC &quot;Georgian Water and Power&quot;</td>
<td>1,817,885</td>
<td>1,403,365</td>
<td>289,475</td>
</tr>
<tr>
<td>JSC &quot;Telasi&quot;</td>
<td>117,830</td>
<td>210,155</td>
<td>41,740</td>
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<tr>
<td>LLC &quot;Socar Georgia Gas&quot;</td>
<td>647,375</td>
<td>350,610</td>
<td>79,925</td>
</tr>
<tr>
<td>JSC &quot;Energo-Pro Georgia&quot;</td>
<td>141,005</td>
<td>103,785</td>
<td>88,405</td>
</tr>
<tr>
<td>LLC &quot;Tbilisi Energy&quot;</td>
<td>56,630</td>
<td>47,085</td>
<td>243,860</td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th>Company Name</th>
<th>Amount 1</th>
<th>Amount 2</th>
<th>Amount 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>JSC “SacOrgGas”</td>
<td>130,250</td>
<td>41,850</td>
<td>46,610</td>
</tr>
<tr>
<td>LLC “Rustavi Water”</td>
<td>31,230</td>
<td>44,390</td>
<td>3,155</td>
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<tr>
<td>LLC “United Water Supply Company of Georgia”</td>
<td>630</td>
<td>3,045</td>
<td>13,085</td>
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<tr>
<td>LLC “Batumi Water”</td>
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<td>188,735</td>
<td>170</td>
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<tr>
<td>LLC “Telavgazi”</td>
<td>0</td>
<td>0</td>
<td>10,185</td>
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<tr>
<td>Other small utilities</td>
<td>630</td>
<td>180</td>
<td>1,625</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,943,465</strong></td>
<td><strong>2,393,200</strong></td>
<td><strong>818,235</strong></td>
</tr>
</tbody>
</table>

*Table 5.1. The amount of compensations accrued to 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.


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 an administrative-legal act – the 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 the electricity sector relations between customers and companies are regulated by the Commission’s Resolution №20 of September 18, 2008 on Approving Electricity (Capacity) Supply and Consumption Rules.

The substantial part of disputes during the reporting period was caused by claims of utilities to reimburse liabilities being out of the period of limitation. The cause of dispute was the 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 an authorized
body, non-compliance with the terms of connecting a new customer to the network and etc. A part of disputes that consider unauthorized connections were also relevant throughout the reporting period.

The total number of applications/complaints in the electricity sector submitted directly to the Commission during the reporting period amounted 540. The applications/complaints were submitted against to the following companies:

a) Telasi JSC – 355;
b) Energo-pro Georgia JSC – 185.

As a result of dispute resolution, the Commission made 83 decisions. 41 applications/complaints were satisfied fully, 18 – partially and 38 applications/complaints were not satisfied. In case of those applications/complaints of customers that were not discussed at the public hearings, administrative proceedings were finalized by sending letters of response.

The amount cut off from customers’ accounts in electricity sector constituted 1,405,353.86 GEL.

6.3. Natural Gas Sector

In the natural gas sector the relations between customers and companies are regulated by the Commission’s Resolution №12 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, as well as due to non-compliance with the timeframes defined for connecting new customers to the network.

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 was 862. The applications/complaints were submitted against to the following companies:

a) Kaztransgas-Tbilisi LLC – 362;
b) Socar Georgia Gas LLC – 305;
c) SakOrgGas JSC – 187;
d) Inter Gas LLC – 1;
g) Varketilairi LLC -4;
h) Kamari M LLC - 2;
k) Georgian Gas Transportation Company LLC - 2;

As a result of dispute resolution, the Commission made 550 decisions. 174 applications/complaints were satisfied fully, 162 – partially and 214 applications/complaints were not satisfied.

The amount cut off from consumers’ accounts in natural gas sector constituted 294,967.16 GEL.
6.4. Water Supply Sector

In the water supply sector the relations between customers and companies are regulated by the Commission’s Resolution №32 of November 26, 2008 “On Approving Drinking Water Supply and Consumption Rules”. The main reasons of complaints in the 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 for new customers 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 was 620. The applications/complaints were submitted against to the following companies:

a) Georgian Water and Power LLC – 489;
b) Georgian United Water Supply Company LLC – 87;
c) Rustavis Tskali LLC – 21;
d) Mtskhetis Tskali LLC – 5;
e) Batumis Tskali LLC – 18.

As a result of dispute resolution, the Commission made 210 decisions. 71 applications/complaints were satisfied fully, 67– partially and 72 applications/complaints were not satisfied.

The amount cut off from consumers’ accounts in the water supply sector has constituted 422,544.53 GEL.

During the reporting period, the Commission reviewed 2022 case out of which the Commission made 843 decisions based on the application/complaints submitted to the Consumers’ Complaints Department and administrative proceedings related to other complaints/applications were finalized by the letter of response. The total amount cut off from consumers’ accounts constituted 2,122,865.55 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. Partner International Organisations

The Commission cooperates at the international level with leading international organizations acting in the energy and water supply sectors. Special attention is paid to sharing novelties, challenges, progress and achievements in various countries in the process of carrying out the Commission’s activities. International organizations play active role in the process for improving quality of the regulation. Cooperation with the partner international organizations, sharing knowledge and experience of the foreign experts assists the Commission in the process of better performing its functions.

It is worth mentioning that Georgia has been the member of Energy Community since 2017. Respectively, it is obliged to comply with the EU acquis and transpose the EU requirements into the national legislation. In terms of fulfilling mentioned obligations, the year of 2019 was quite active. The representatives of the Commission cooperated with the Energy Community Secretariat and participated in the conferences, fora and working group meetings organized by it where issues related to the electricity, natural gas and customer protection were discussed.

Cooperation of the Commission with the Energy Regulators Regional Association was also quite important. The Commission has a long-standing relations with ERRA. It is a founding member of the organization. The staff of the Commission have been actively participating in ERRA General Assembly, Investment and Regulation Conference, Chairman Session, Working Groups, Committee meetings and trainings. The governing bodies of ERRA consented to the initiative of the Commission to organize ERRA Investment and Regulation Conference 2020 in Georgia.

The Commission also actively cooperates with National Association of Regulatory Utility Commissioners (NARUC). During 2019 a number of workshops were organized by NARUC and funded by USAID where the Commission’s staff participated. The technical workshop regarding the cybersecurity Initiative in European and Eurasian Countries, the technical workshop on natural gas sector, the workshop on regional balance market integration, other types of workshops under partnership program regarding basics of the regulatory accounting etc. are notable.

The Commission actively cooperates with the Council of European Energy Regulators where it has had an observer status since 2017. Throughout 2019 the representatives of the Commission attended General Assembly meetings and actively participated in the meetings of international relations, electricity natural gas, distribution systems, customers and retail markets working groups.

The representatives of the Commission were also participating in the European Network of European Water Regulators (WAREG) General Assembly and working group meeting. As a result of the abovementioned successful cooperation the Commission will host upcoming General Assembly and working group meeting in Georgia.

Hereby, the Commission has been attending the events organized by International Association of Energy Economy (IAEE) since 2018. International Association of the Energy Economy is one of the worldwide international organizations that carries out activities in energy economics and related fields. In 2019 the Commission expressed its will to become a member of IAEE. Such cooperation will foster sharing knowledge and experience in the energy sector.
7.2. Relations with the Energy and Water Supply Regulatory Authorities of foreign countries.

The Commission actively cooperates with the Energy and Water Supply Regulatory Commissions of other countries.

Based on the Memorandum of Cooperation with Water Industry Commission of Scotland (WICS) the meetings were held with the experts. The main issues discussed during those workshops concerned current approaches of investment appraisal in the water supply sectors. The Scottish experts discussed procedures for estimating business plans, collecting data necessary for regulation and models applied by WICS.

A memorandum of cooperation was signed between Energy Services Administration of Italy (Gestore Dei Servizi Energetici GSE S.P.A.) and the Commission. The parties will cooperate on the issues related to renewable energies and the energy efficiency. Organization of seminars and workshops is planned where the participants will share the best practices on improving services and implementation of innovative technologies in the regulated sectors. Mutual projects on smart networks and smart metering will be implemented.

The Commission constantly shares its knowledge and experience with the authorities of other countries. In 2019 the meeting with the Governmental delegation of Nepal was Held. The delegation was led by Energy, Water Resources and Irrigation Minister of Nepal. The representatives of the Commission gave information about the regulation of the energy sector, current reforms and future plans to the guests.

7.3. Implemented and Current International Projects

A number of important international projects were carried out throughout the reporting period. Energy Community experts provided assistance to the Commission within the EU4Energy governance project in developing secondary legislation. Therefore, meetings were held within that assistance project where Energy Community Secretariat experts, the representatives of the Commission and staff of the regulated companies participated.

USAID Energy Project (UEP) has been also actively assisting the Commission in developing its secondary legislation compliant to EU Energy acquis.

As a result of EU4Energy and UEP assistance drafts of the secondary legislation were developed, such as: day ahead and intraday market rules, Market Operator Service Fee calculation methodology, Georgian Electricity Market Balancing Rules, Supplier of Last Resort Rules, Universal Service Supplier Procedural Rules, Supplier of Last Resort Tariff setting Methodology, Tariff methodology of connection to the distribution Network, Rules of Certification of the transmission System Operator, Compliance Rules of the Distribution System Operator Rules on Licensing Energy Activities, Congestion Management Rules etc.

The EU-funded Twinning project was launched at Georgian National Energy and Water Supply Regulatory Commission on February 1, 2019 concerning “Development of Incentive Based Regulation for Service Quality and Regulatory Strategy to Support Roll-Out of Smart Metering” (ENI/2018/403-468). The project will last for 21 months and its total budget constitutes 1 200 000 Euro. The main purpose of the project is to ensure compliance of the secondary legal acts on service quality and reliability of supply with EU acquis and develop the regulatory strategy for supporting the smart-metering roll-out. The project was implemented
by the Energy Regulatory Authority of Austria (E-Control), Energy Regulatory Commission of France (CRE) and Energy Regulatory Authority of Greece (RAE);

In addition a new EU Twinning project fiche was approved in 2019 that envisages assistance with regards to the Strengthening Capacities of GNERC in Developing Network Tariff Setting Methodologies, Enabling Demand Side Involvement on the new energy market model of Georgia and developing energy efficiency and renewable energy regulatory strategy. The project is scheduled to start by the end of 2020.
8. Public Relations

The main aim of the Public Relations’ Department is to provide information quickly to the customers through simple means of communication on the regulations approved by the Commission. In the frames of the communication activities of 2019 a special attention was paid to the provision of information on regulations approved by the Commission regarding protection of the customers’ rights, improvement of quality of service and reform of the electricity market to the society, stakeholders and ngos.

A special importance was given to the communication with media. For those purposes representatives of the Commission actively participated in TV and Radio programs. Cooperation with the Radio Comersant was ongoing were main events taking place in the Energy and Water Supply Sectors have been discussed by means of the radio broadcasting “professionals”.

Implementation of the open and transparent communication strategy has improved attitude of media towards the Commission with respect to trustworthiness. A results of media monitoring survey have indicated that broadcasting trend was mainly characterized by neutral and positive assessments.

![Figure 8.1. Quantitative Indicators of Media News regarding the Activities of the Commission in 2019](image)

A new website has been finalized and launched in test mode in 2019 that is designated for the different segments. The Concept of the website has fully changed and has become more informative and customer-oriented.

A project Media Club continued and the seminars regarding service regulation mechanisms in the energy and water supply sectors have been held.

In 2019 the Public Relations’ Department organized an event regarding summary of 6-year achievements of the former Chair of the Commission throughout her term of the office in 2013-2019, hereby the department developed and printed a journal concerning the Commission’s activities throughout that period.

For the purpose of complying with the communication targets the Public Relations’ Department actively uses social media. Throughout the year official Facebook, Twitter, youtube and linked in pages of the year were constantly updated. Notably, in comparison to 2018 citizens have been more active on FB page of the Commission by 40%. Based on the monitoring results of the consultations given to the citizens
through social networks main trend of complaints has been identified and it concerned service quality. Citizens mainly requested consultations with regards to the secondary legislation approved by the Commission, procedures and quality of service.

**Call Center**

As a result of monitoring incoming calls of the call center throughout 2019 totally 10,566 calls have been registered. Out of which 6530 calls concerned change of address or the request of information on the state of submitted applications.

![Figure 8.3. Incoming Calls According to Sectors](image)

Incoming calls to of the call sectors can be allocated according to sectors in a following manner: 1321 calls – electricity sector, 1262 calls – natural gas sector and 1453 calls – water supply sector. 67% of the calls were related to the provision of various types of informations and consultation.

![Figure 8.3. Incoming Calls According to Sectors](image)

9.1. Publicity of the Information

The Commission ensures proactive publication of public information on its website (the Commission’s website – www.gnerc.org) according to the Resolution №7 on Approving Rules of Electronically Requesting 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, a report on public information was prepared and approved by the Commission’s Decision №99/11 on December 6, 2019 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 compliance with the timeframe prescribed by this Code.

The above-mentioned document was sent to the President of Georgia, the Prime-Minister of Georgia, the Parliament of Georgia and published in the Legislative Herald of Georgia pursuant to the Article 49 of Chapter III of the General Administrative Code of Georgia. In 2019, 49 written requests were submitted to the Commission from which 39 requests were fully satisfied, 9 requests were partially satisfied and 1 applications were refused. Partial 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, a person responsible for ensuring availability of public information has kept a register of letters submitted by e-mail (publicinfo@gnerc.org) or chanceller division on requesting issuance or interpretation of public information.

An annual report of the Commission on issuance of public information during 2017-2019 years is published on the Commission’s website (www.gnerc.org).

9.2. Public Hearings and Protocol Proceeding of the Commission

In 2019, 114 public hearings were held at the Commission and 53 resolutions and 2013 decisions were adopted. Resolutions and decisions adopted by the Commission are published on the Commission’s official website: www.gnerc.org.

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 the 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 2019, 11 decisions were made on the recognition of information as a commercially confidential, including: 2 decisions - on full recognition, 7 – on partial recognition and 2 - on complete refusal of the recognition of information as a commercially confidential.

Public hearings of the Commission are conducted electronically via special hardware program.
Annex №1 - List of Licensees in the Electricity Sector

<table>
<thead>
<tr>
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<th></th>
<th></th>
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<tbody>
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<td>Electricity Generation</td>
<td>12</td>
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<td>20</td>
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<td>Electricity Distribution</td>
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<td>3</td>
<td>2*</td>
<td>2</td>
<td>2</td>
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</tr>
<tr>
<td>Electricity Transmission</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3**</td>
<td>3**</td>
<td>3**</td>
<td>3**</td>
<td>3</td>
<td></td>
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<tr>
<td>Electricity Dispatch</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td><strong>Total</strong></td>
<td>18</td>
<td>18</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>25</td>
<td>26</td>
<td>26</td>
<td>28</td>
</tr>
</tbody>
</table>

* 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
- Khrami 1 HPP JSC
- Khrami 2 HPP 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
- G-Power LLC
- Energia LLC (Larsi HPP)
- Gardabani Thermal Power Plant LLC
- Sakartvelo-Urban Energy LLC (Paravani HPP)
- Saknakhshiri LLC
- Darial Energy LLC
- Old Energy JSC
- Svaneti Hydro JSC (Mestiachala HPP 1, Mestiachala HPP 2)
- Energo-Pro Georgia - Generation JSC
  - 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 (Tbilresi)
- Kartli Wind Power Plant LLC
- Adjar Energy – 2007 LLC (Khelvachauri HPP)
- Adjaristskali Georgia LLC (Shuakhevi HPP)

### Dispatch
- Georgian State Electrosystem JSC

### Transmission
- Georgian State Electrosystem JSC
- Sakrusenergo JSC
- Energotrans LLC
- Energo-Pro Georgia JSC (Preliminary License)

### Distribution
- Telasi JSC
- Energo-Pro Georgia JSC
### Annex №2 - Number of Electricity Customers in 2012-2019

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Retail Customer</td>
<td>1,581,896</td>
<td>1,623,110</td>
<td>1,664,802</td>
<td>1,653,549</td>
<td>1,688,903</td>
<td>1,753,615</td>
<td>1,767,551</td>
<td>1,806,473</td>
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<tr>
<td>Including:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Household</td>
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<td>1,529,187</td>
<td>1,566,277</td>
<td>1,556,003</td>
<td>1,562,485</td>
<td>1,641,904</td>
<td>1,661,917</td>
<td>1,697,992</td>
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<tr>
<td>Non-household</td>
<td>81,925</td>
<td>93,923</td>
<td>98,525</td>
<td>97,546</td>
<td>126,418</td>
<td>111,711</td>
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<td>4</td>
<td>4</td>
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<tr>
<td>Total</td>
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<td>1,623,117</td>
<td>1,664,807</td>
<td>1,653,553</td>
<td>1,688,907</td>
<td>1,753,617</td>
<td>1,767,557</td>
<td>1,806,491</td>
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### Annex №3 - System Peak Load in 2009-2019

![Graph showing system peak load from 2009 to 2019](image_url)
Annex №4 - Electricity Losses in Distribution Network in 2019

<table>
<thead>
<tr>
<th>Losses</th>
<th>Distribution Companies</th>
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<tbody>
<tr>
<td></td>
<td>Telasi JSC</td>
</tr>
<tr>
<td>Normative (%)</td>
<td>2019</td>
</tr>
<tr>
<td></td>
<td>5.85%</td>
</tr>
<tr>
<td>Actual (%)</td>
<td>5.01%</td>
</tr>
<tr>
<td>Actual (mln kWh)</td>
<td>155.7 mln kWh</td>
</tr>
</tbody>
</table>

Annex №5 – Metering per the Distribution Companies by December 31, 2019

<table>
<thead>
<tr>
<th>№</th>
<th>Companies</th>
<th>Total</th>
<th>Subscribers having individual meters</th>
<th>Subscribers not having individual meters</th>
<th>Subscribers consuming less than 1 kW24</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Telasi JSC</td>
<td>611,971</td>
<td>602,609</td>
<td>0</td>
<td>9,362</td>
</tr>
<tr>
<td>2</td>
<td>Energo-Pro Georgia JSC</td>
<td>1,194,502</td>
<td>1,189,757</td>
<td>4,63425</td>
<td>111</td>
</tr>
</tbody>
</table>

Annex №6 – Ownership of Electricity Sector Participants

<table>
<thead>
<tr>
<th></th>
<th>Private ownership</th>
<th>State ownership</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation Licensees</td>
<td>19</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Transmission Licensees</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Distribution Licensees</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Dispatch Licensee</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

24 Customers consuming less than 1 kW that do not need metering point.
25 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 2004-2019\(^\text{26}\)

\[\text{Increasing of Electricity Consumption (\%)} \quad \text{Actual Increasing of GDP (\%)}\]

Annex №8 - Current Tariffs in Electricity Sector

<table>
<thead>
<tr>
<th>Company</th>
<th>Generation Facility</th>
<th>2019</th>
<th>2020</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mtkvari Energy LLC</td>
<td>9\textsuperscript{th} Unit of Tbilsresi</td>
<td>77,121</td>
<td>77,330</td>
<td>209</td>
</tr>
<tr>
<td>Georgian International Energy Corporation LLC</td>
<td>3\textsuperscript{rd} Unit of Tbilsresi</td>
<td>20,006</td>
<td>25,159</td>
<td>5,153</td>
</tr>
<tr>
<td>Georgian International Energy Corporation LLC</td>
<td>4\textsuperscript{th} Unit of Tbilsresi</td>
<td>21,811</td>
<td>27,444</td>
<td>5,633</td>
</tr>
<tr>
<td>G-Power LLC</td>
<td>Gas turbine power plant</td>
<td>47,720</td>
<td>47,898</td>
<td>178</td>
</tr>
<tr>
<td>Gardabani TPP LLC</td>
<td>Combined cycle of gas turbine</td>
<td>383,971</td>
<td>404,214</td>
<td>20,243</td>
</tr>
</tbody>
</table>

\(^{26}\) As for actual indicator of GDP in 2019, the preliminary indicator of 2019 published by the National Statistics Office of Georgia is used, which will be clarified at the end of the 2020.
<table>
<thead>
<tr>
<th>Company</th>
<th>Activity</th>
<th>2018-2019</th>
<th>2020</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgian State Electrosystem JSC</td>
<td>Electricity transmission</td>
<td>1.323</td>
<td>1.013</td>
<td>(0.310)</td>
</tr>
<tr>
<td>Enguri HPP LLC</td>
<td>Electricity generation</td>
<td>1.818</td>
<td>1.358</td>
<td>(0.460)</td>
</tr>
<tr>
<td>Vardnili HPP Cascade LLC</td>
<td>Electricity generation</td>
<td>4.002</td>
<td>2.206</td>
<td>(1.796)</td>
</tr>
<tr>
<td>Khrami 1 HPP JSC</td>
<td>Electricity generation</td>
<td>9.147</td>
<td>10.837</td>
<td>1.690</td>
</tr>
<tr>
<td>Khrami 2 HPP JSC</td>
<td>Electricity generation</td>
<td>10.614</td>
<td>12.304</td>
<td>1.690</td>
</tr>
</tbody>
</table>
Electricity Final Consumption Tariffs for 2018-2020 (Tetri / kWh)

110-35 kV, High Voltage non-Residential
10-6 kV, Medium Voltage
220-380 V, Low Voltage
0 - 101 kWh/Month, "Step 1"
101 - 301 kWh/Month, "Step 2"
> 301 kWh/Month, "Step 3" non-Residential
Energo Pro Georgia (Rest of Georgia)
Residential

Telasi (Tbilisi)

- 18 % VAT
- Distribution Tariff
- Weighted Average Price of Electricity, Transmission Tariff****
- Weighted Average Price of Electricity, Dispatch Tariff***
- Weighted Average Price of Electricity, Guaranteed Capacity Charge**
- Weighted Average Price of Electricity, Weighted Average Price of Energy*
# Annex №9 – List of Suppliers of Natural Gas Wholesale and Retail Markets (Market year)

<table>
<thead>
<tr>
<th></th>
<th>Supplier</th>
<th>Wholesale Market</th>
<th>Retail Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Energokavshiri JSC</td>
<td></td>
<td>0.51%</td>
</tr>
<tr>
<td>2</td>
<td>Wissol Petroleum Georgia JSC</td>
<td></td>
<td>0.06%</td>
</tr>
<tr>
<td>3</td>
<td>Georgian Oil and Gas Corporation JSC</td>
<td>36.9%</td>
<td>0.56%</td>
</tr>
<tr>
<td>4</td>
<td>SakOrgGas JSC</td>
<td>0.2%</td>
<td>0.52%</td>
</tr>
<tr>
<td>5</td>
<td>Sachkheregazi JSC</td>
<td></td>
<td>0.33%</td>
</tr>
<tr>
<td>6</td>
<td>Socar Georgia Gas Distribution JSC</td>
<td>1.6%</td>
<td>2.66%</td>
</tr>
<tr>
<td>7</td>
<td>Frontera Resources Georgia Corporation Branch in Georgia</td>
<td></td>
<td>0.02%</td>
</tr>
<tr>
<td>8</td>
<td>Akriani 2006 LLC</td>
<td></td>
<td>0.05%</td>
</tr>
<tr>
<td>9</td>
<td>Arzu-Gas LLC</td>
<td></td>
<td>0.02%</td>
</tr>
<tr>
<td>10</td>
<td>Bago LLC</td>
<td></td>
<td>0.22%</td>
</tr>
<tr>
<td>11</td>
<td>Gas Trading LLC</td>
<td>3.0%</td>
<td>3.70%</td>
</tr>
<tr>
<td>12</td>
<td>Gas Impex LLC</td>
<td>0.015%</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Gas Energy LLC</td>
<td></td>
<td>0.27%</td>
</tr>
<tr>
<td>14</td>
<td>Gama LLC</td>
<td></td>
<td>0.17%</td>
</tr>
<tr>
<td>15</td>
<td>Gasko+ LLC</td>
<td></td>
<td>0.20%</td>
</tr>
<tr>
<td>16</td>
<td>Gogochuri &amp; Company LLC</td>
<td></td>
<td>0.04%</td>
</tr>
<tr>
<td>17</td>
<td>DVS LLC</td>
<td></td>
<td>0.06%</td>
</tr>
<tr>
<td>18</td>
<td>Didi Dighomi LLC</td>
<td></td>
<td>0.53%</td>
</tr>
<tr>
<td>19</td>
<td>Energia+ LLC</td>
<td></td>
<td>0.09%</td>
</tr>
<tr>
<td>20</td>
<td>SG Gas Company LLC</td>
<td></td>
<td>0.99%</td>
</tr>
<tr>
<td>21</td>
<td>Vake LLC</td>
<td></td>
<td>0.04%</td>
</tr>
<tr>
<td>22</td>
<td>Varketilairi LLC</td>
<td></td>
<td>0.67%</td>
</tr>
<tr>
<td>23</td>
<td>Tbilisi Energy LLC</td>
<td>0.6%</td>
<td>24.40%</td>
</tr>
<tr>
<td>24</td>
<td>Telavgazi LLC</td>
<td></td>
<td>0.74%</td>
</tr>
<tr>
<td></td>
<td>Company</td>
<td>Transportation License</td>
<td>Distribution License</td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------</td>
<td>------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>25</td>
<td>Mamed LLC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>MMS+ LLC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Georgian Gas Transportation Company LLC</td>
<td>0.8%</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Georgian International Energy Corporation LLC</td>
<td>0.1%</td>
<td>1.89%</td>
</tr>
<tr>
<td>29</td>
<td>Socar Gas Export Import LLC</td>
<td>25.2%</td>
<td>29.28%</td>
</tr>
<tr>
<td>30</td>
<td>Socar Georgia Gas LLC</td>
<td>31.5%</td>
<td>31.18%</td>
</tr>
<tr>
<td>31</td>
<td>Taba LLC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Kamari M LLC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Chiraghdani XXI Saukune LLC</td>
<td></td>
<td>0.19%</td>
</tr>
<tr>
<td>34</td>
<td>Chiraghdani LLC</td>
<td></td>
<td>0.012%</td>
</tr>
<tr>
<td>35</td>
<td>GI Trading LLC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Construction Company Garanti XXI LLC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Annex №10 – List of Licensees and the Number of Subscribers

<table>
<thead>
<tr>
<th>Company</th>
<th>Transportation License</th>
<th>Distribution License</th>
<th>Number of Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgian Gas Transportation Company LLC</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socar Georgia Gas LLC</td>
<td>✓</td>
<td>✓</td>
<td>436,289</td>
</tr>
<tr>
<td>Tbilisi Energy LLC</td>
<td>✓</td>
<td>✓</td>
<td>474,960</td>
</tr>
<tr>
<td>SakOrgGas JSC</td>
<td>✓</td>
<td>✓</td>
<td>272,267</td>
</tr>
<tr>
<td>Varketilairi LLC</td>
<td>✓</td>
<td>✓</td>
<td>15,717</td>
</tr>
<tr>
<td>Kamari M LLC</td>
<td>✓</td>
<td>✓</td>
<td>2,655</td>
</tr>
<tr>
<td>Gama LLC</td>
<td>✓</td>
<td>✓</td>
<td>54</td>
</tr>
<tr>
<td>Sachkheregazi JSC</td>
<td>✓</td>
<td>✓</td>
<td>16,650</td>
</tr>
</tbody>
</table>
## Annex №11 – Natural Gas Consumption Tariffs

(By 01.01.2020)

<table>
<thead>
<tr>
<th>№</th>
<th>Distribution licensee</th>
<th>Consumption tariffs for household customers excluding VAT (Tetri/m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tbilisi Energy LLC</td>
<td>39.100</td>
</tr>
<tr>
<td>2</td>
<td>Socar Georgia Gas LLC</td>
<td>48.244</td>
</tr>
<tr>
<td>3</td>
<td>SakOrgGas JSC</td>
<td>48.297</td>
</tr>
<tr>
<td>4</td>
<td>Telavgazi JSC</td>
<td>44.931</td>
</tr>
<tr>
<td>5</td>
<td>Gazmsheni LLC</td>
<td>35.161</td>
</tr>
<tr>
<td>6</td>
<td>Energokavshiri JSC</td>
<td>41.901</td>
</tr>
<tr>
<td>7</td>
<td>Gogochuri &amp; Company GP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Medium pressure</td>
<td>35.712</td>
</tr>
<tr>
<td>8</td>
<td>Arzu-Gas LLC</td>
<td>46.917</td>
</tr>
<tr>
<td>9</td>
<td>Sachkheregazi JSC</td>
<td>43.572</td>
</tr>
<tr>
<td>10</td>
<td>Gama LLC</td>
<td>35.610</td>
</tr>
<tr>
<td>11</td>
<td>Kamari M LLC</td>
<td>43.220</td>
</tr>
<tr>
<td></td>
<td>Company Name</td>
<td>Value</td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>12</td>
<td>Varketilairi LLC</td>
<td>41.252</td>
</tr>
<tr>
<td>13</td>
<td>Vake LLC</td>
<td>41.310</td>
</tr>
<tr>
<td>14</td>
<td>Didi Dighomi LLC</td>
<td>43.136</td>
</tr>
<tr>
<td>15</td>
<td>Taba LLC</td>
<td>48.800</td>
</tr>
<tr>
<td>16</td>
<td>Energia+ LLC</td>
<td>40.848</td>
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<tr>
<td>17</td>
<td>DVS LLC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Medium Pressure</td>
<td>34.873</td>
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<tr>
<td></td>
<td>- Low pressure</td>
<td>41.102</td>
</tr>
<tr>
<td>18</td>
<td>Gasko+ LLC</td>
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</tr>
<tr>
<td></td>
<td>- Medium Pressure</td>
<td>34.661</td>
</tr>
<tr>
<td></td>
<td>- Low pressure</td>
<td>45.170</td>
</tr>
<tr>
<td>19</td>
<td>Akriani 2006 LLC</td>
<td>43.220</td>
</tr>
<tr>
<td>20</td>
<td>Chiraghdani XXI Saukune LLC</td>
<td>42.330</td>
</tr>
<tr>
<td>21</td>
<td>Chiraghdani LLC</td>
<td>45.763</td>
</tr>
<tr>
<td>22</td>
<td>SG Gas Company LLC</td>
<td>45.085</td>
</tr>
<tr>
<td>23</td>
<td>Gaztrans Service LLC</td>
<td>40.678</td>
</tr>
<tr>
<td>24</td>
<td>Intergazi LLC</td>
<td>Deregulated</td>
</tr>
<tr>
<td>25</td>
<td>Mamed LLC</td>
<td>44.068</td>
</tr>
</tbody>
</table>