



SABIEDRISKO
PAKALPOJUMU
REGULĒŠANAS
KOMISIJA

Annual Report 2017

**The Public Utilities
Commission of Latvia**

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1. TERMS AND ABBREVIATIONS

ACER – Agency for the Cooperation of Energy Regulators

Ad hoc – for this

AST – joint-stock company “Augstsprieguma tīkls”

BALTREG – Baltic Electronic Communications and Postal Regulator

BEREC – Body of European Regulators for Electronic Communications

CACM – Guideline on Capacity Allocation and Congestion Management

CSB – Central Statistical Bureau of Latvia

EaPeReg – Eastern Partnership Electronic Communications Regulators Network

EC – European Commission

EP – European Parliament

ERRA – Energy Regulators Regional Association

EU – European Union

EUR – euro

GDP – gross domestic product

GHz – gigahertz

HHI – Herfindahl–Hirschman Index

JSC – joint-stock company

kV – kilovolt

Mbit/s – megabits per second

m³ – cubic metre

MPC – mandatory procurement component

MW – megawatt

MWh – megawatt hour

nm³ – normal cubic metre

NGO – non-governmental organisation

OECD – Organisation for Economic Cooperation and Development

REMIT – Regulation No 1227/2011 on wholesale energy market integrity and transparency

Regulator – the Public Utilities Commission of Latvia

LNG terminal - liquefied natural gas terminal

Ltd – limited liability company

SKDS – the market and public opinion research centre SKDS

TAIEX – Technical Assistance and Information Exchange Unit

TSO – transmission system operator

t – ton

US – universal service

2G – second generation mobile communications technology

3G – third generation mobile communications technology

4G – fourth generation mobile communications technology

5G – fifth generation mobile communications technology

2. THE CHAIRMAN'S FOREWORD



Year 2017 was a challenging one for the Regulator taking into account developments in the regulated sectors and changes in the Regulator's internal work organization. As a result of the changes in the natural gas sector, structural changes were made in the Energy Department, moving from a management model based on sectors to a functional division - market surveillance, market integration and tariff setting.

In 2017, the Regulator continued the work on the implementation of the OECD recommendations to strengthen the financial independence and stability of the Regulator. The Saeima (Parliament) supported amendments to the law "On Regulators of Public Utilities", which provides for the use of the Regulator's budget surplus for the creation of provisions. This will contribute to the financial stability of the Regulator, in particular due to the current tendency for the turnover of regulated companies to decrease.

In 2017, the opening of the natural gas market was the most important development in the energy sector. The legislative acts and tariff decisions approved by the Regulator provided the basis for many new traders to simultaneously launch their operations in the market, while end-users were given the opportunity to choose the most appropriate and most advantageous market offer. The reduced transmission tariffs at the entry – exit points on the border of Latvia facilitated natural gas cross-border flows into the natural gas supply system of Latvia and the use of the Inčukalns underground gas storage.

Last year, the tariffs of the electricity transmission system services approved by the Regulator entered into force; the costs included in the tariffs were 3% lower compared to the previously approved tariffs. Taking into account the structure of JSC "Sadales tīkls" tariffs approved in 2016, electricity users continued to reduce their connected load, which in the future will make it possible to optimize investments and costs in the entire electricity distribution system.

With the opening of the natural gas market, the thermal energy sector also experienced changes. Before, the heat tariffs changed on a monthly basis depending on the current price of natural gas, while after the market opening each company has an individually determined price of natural gas. At the same time, the Regulator's supervision over the validity of these costs is maintained.

In the electronic communications sector, the year 2017 was highlighted by significant changes in the regulation of roaming tariffs. With the introduction of "Roam Like at Home", additional roaming charges were cancelled. In this process, the Regulator continues to monitor the compliance by operators with the requirements of the Roaming Regulation. In 2017, the Regulator organized an auction on the allocation of the rights to use 3.4 – 3.7 GHz radio spectrum bands, which will be used for the deployment of 5G services in the future. Meanwhile, parcel

services continued to grow in the postal sector; this growth is expected to continue in the future along with the development of e-commerce.

In the water management sector, companies continued to invest in the development and quality improvement of water supply and sewerage system services, which simultaneously led to an increase in tariffs. Meanwhile, in the municipal waste sector, the natural resources tax rate will increase to 50 EUR/t in the next five years. Hence, higher motivation of the population and entrepreneurs to sort waste is expected, which would facilitate the reduction of the amount of waste to be disposed of.

For more information on the work of the Regulator, please see the Regulator's 2017 Activity Report.

Sincerely yours,

Rolands Irklis

THE REGULATOR'S ACTIVITIES

The Public Utilities Commission's (Regulator) **mission** is to independently and reliably ensure the balancing of the interests of service users and providers by promoting the development of public services. The Regulator's **vision** is to become one of the most reliable and open public authorities by implementing new regulatory frameworks and improving the existing ones.

The Board adopts decisions on the behalf of the Regulator. The Board consists of the Chairman and four Board members appointed by the Saeima. In 2017, the Chairman Rolands Irklis and Board members Gatis Ābele, Intars Birziņš, Imants Mantiņš and Rota Šņuka represented the Regulator's Board.

More information about the Regulator's structure and work organisation is available in the section "Structure and work organisation".



In 2017, the Regulator developed its operational strategy 2018 – 2021 which was approved by the Board in 2018. The Regulator's **strategic objective** is to ensure the availability of high-quality public services at economically justified prices.

THE REGULATOR'S STRATEGIC PRIORITIES

The Regulator's functions can be split into three priority areas which cover all multi-sector functions of the Regulator and meet the interests of public service users.

1. Availability and safety of services

1. Improved availability of services by providing economic justification and promoting the development of services.
2. Facilitated entry into the market for companies by reviewing unnecessary barriers in the legislative acts issued by the Regulator and proposing corresponding improvements in the market rules determined by other institutions.
3. Improved capability of companies to provide services to users by ensuring non-discriminatory and easy access to infrastructure by assessing infrastructure usage and access regulations on a regular basis.
4. Opportunities provided for users to choose an appropriate service provider by identifying possible deficiencies and proposing corresponding improvements in the market rules.
5. Development of services in accordance with user demand by supervising the neutrality of system operators' activities.

2. Economically justified prices

1. More efficiently used resources.
2. Prices approximated to actual, economically justified costs creating an opportunity to implement a more elastic approach in some cases when applying new tariffs.
3. Inclusion of only economically justified capital costs in the tariffs including a proper asset value in the regulatory asset base and determining a justified return on capital.
4. Qualitative involvement of users in the Regulator's decision-making processes on tariffs by ensuring the availability of information to the public.
5. Optimised infrastructure costs by promoting the cooperation of network and infrastructure owners regarding access to infrastructure and promoting optimal management of the infrastructure.
6. Competitive prices, development of the regional market and growing liquidity by promoting active and unrestricted trade within the single European market including continued work on the establishment of the single Baltic and Finnish natural gas market area.

3. Adequate quality

1. Efficient competition providing clear, easily accessible and objective information to the public about the quality of specific services provided by companies.
2. Improving existing requirements for service quality and introducing new ones.
3. Improving economic and legal incentives and creating new ones.
4. Ensuring opportunities for users to receive services within a reasonable time at adequate costs by assessing and adjusting the conditions for the reception of public services on a regular basis.

3. PUBLIC SERVICE SECTORS IN ECONOMIC CONTEXT

Public service sectors supervised by the Regulator are closely integrated in the overall national economy

Not only does the development of the regulated sectors affect the overall development of the national economy, but also any changes related to economic activity have an impact on the usage of public services.

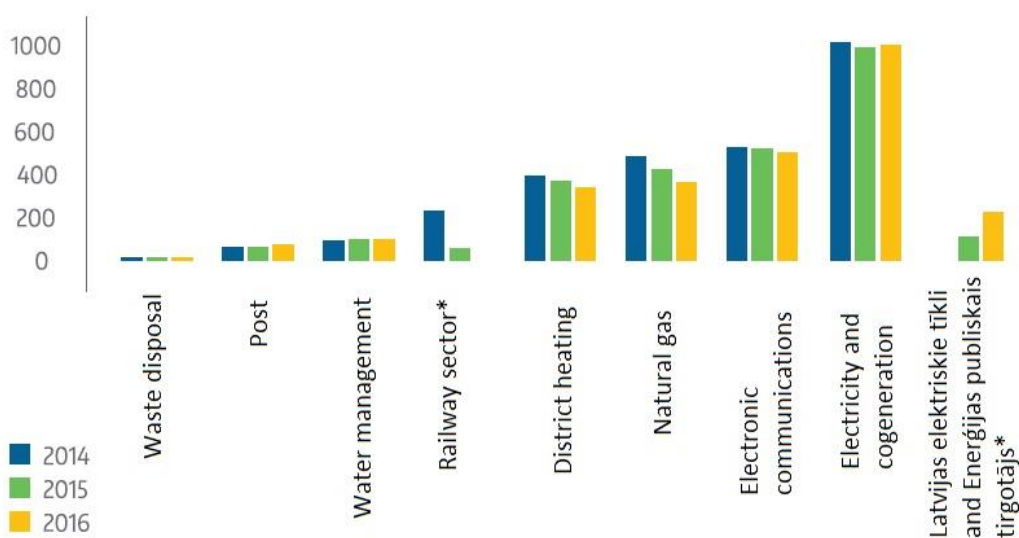
3.1. GROSS DOMESTIC PRODUCT

Gross domestic product (GDP) in 2017 when compared with 2016 increased by 4.5%. The volume of GDP in current prices was 26.9 billion EUR. In 2017, the regulated companies whose activities are supervised by the Regulator represented the sectors of electricity, gas, district heating, water supply, sewerage and waste management, electronic communications and post. The share of regulated companies is different in each of these sectors therefore the published aggregate statistical data on sectors do not always reflect the operational trends of regulated companies.

3.2. TURNOVER OF REGULATED SECTORS

The net turnover of regulated services calculated by using data of reports submitted by regulated companies to the Regulator was 2 605 million EUR in 2016 – 1.2% less than in 2015. In 2016, the net turnover of regulated services increased in the waste disposal sector (by 13.7%), postal sector (by 14.0%), water management sector (by 4.0%), and electricity and cogeneration sector (by 0.9%). In 2016, the district heating sector experienced the largest drop of the net turnover where the net turnover of regulated services decreased by 7.8% in 2016 while in the electronic communications sector the turnover decreased by 3.5%.

Revenues of regulated services to which fee is applied by sectors (mln. EUR)¹



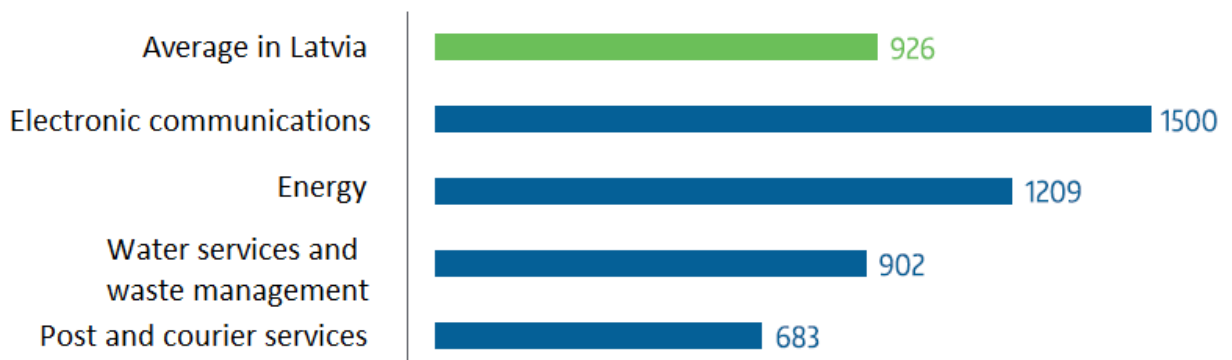
* In accordance with amendments to the Railway Law, a fee for public services regulation was not levied on the net turnover of the regulated services in the railway sector in 2016, while in accordance with amendments to the Electricity Market Law, a fee for public services regulation was levied on the revenues of the electricity system owner (JSC "Latvijas elektriskie tīkli") and the public trader (JSC "Enerģijas publiskais tirgotājs") from 1 July 2016.

¹ As the regulation for calculating and applying the fee changed, the calculation is based on the actual turnover data for 2016.

3.3. REMUNERATION IN REGULATED SECTORS

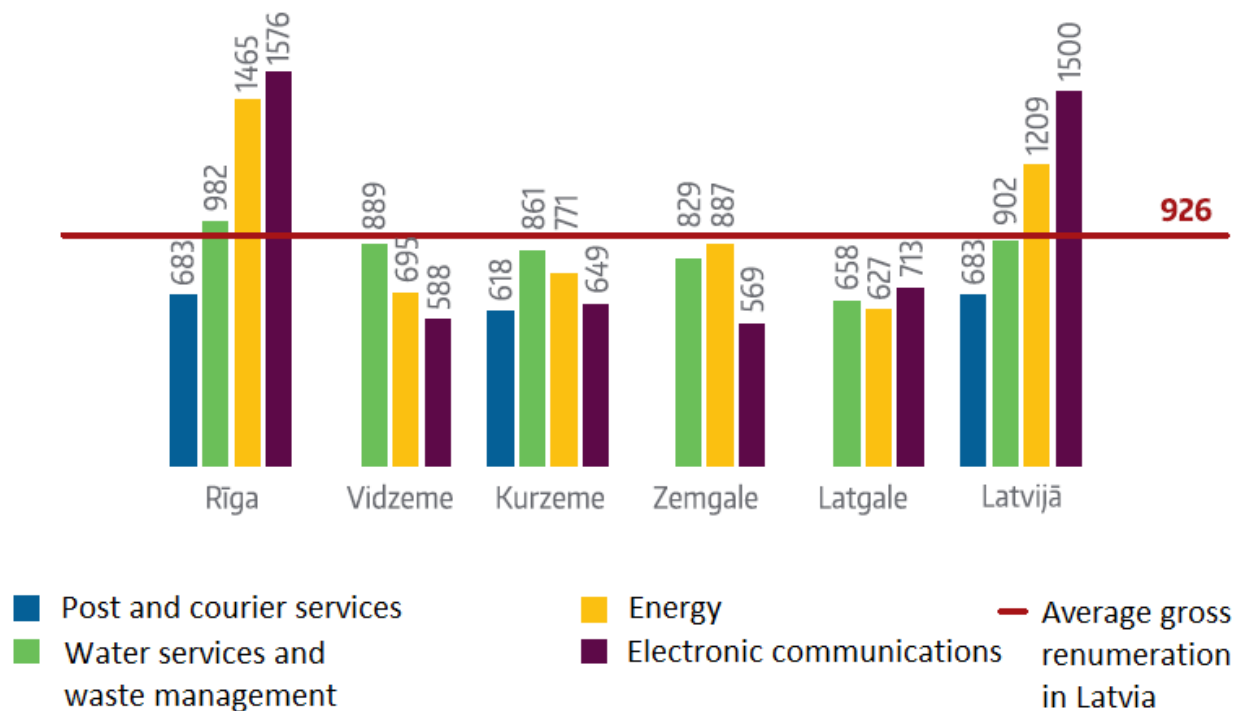
According to the data of the Central Statistical Bureau of Latvia (CSB), in 2017, the average monthly gross wage in the electronic communications and energy sectors was much higher than the average gross wage in the country; however, it was lower in the water and waste management, postal and courier sectors. The average gross wage in Latvia increased by 7.8% when compared with 2016. The average gross wage also increased in the regulated sectors in 2017; it increased by 7.1% in the water and waste management sector, by 4.0% in the energy sector, by 1.2% in the postal and courier sector, and by 8.9% in the electronic communications sector.

Average monthly gross remuneration in public service sectors in 2017 (EUR)



The average monthly gross wage in public service sectors is different in statistical regions. For example, in the Riga region, the average monthly gross wage in water and waste management, energy and electronic communications sectors was higher than the average monthly gross wage in all public service sectors as a whole. Meanwhile, in the Latgale region, the indicators of the gross wage are lowest in the energy, water and waste management sectors. In the electronic communications sector, the lowest indicators of gross wage are in the Zemgale region. Compared among regions, the largest variation amplitude of the average monthly gross wage is in the electronic communications sector – 1 007 EUR, it was 838 EUR in the energy sector, while the average gross wage varies less in the water and waste management sector – it ranges within 324 EUR.

Average monthly gross remuneration in public service sectors in statistical regions in 2017² (EUR)



In the Riga region, the average monthly gross wage in the public service sectors exceeds the average monthly gross wage in the respective sector in Latvia: in the electronic communications sector by 5.1%, energy sector by 21.2%, water and waste management sector by 8.9%. Meanwhile, in other regions of Latvia the opposite is true and, in some sectors, the average monthly gross wage in Latvia significantly exceeds the average monthly gross wage in the specific region. Furthermore, the average monthly gross wage in public service sectors in all regions of Latvia, except Riga region, is lower than the average monthly gross wage in Latvia.

3.4. THE IMPACT OF REGULATED PRICES ON INFLATION

According to the CSB data, in 2017, services with administratively regulated prices made up 11.1% of all household expenditures (goods and services in the consumer price index basket). In this list, administratively regulated prices include both regulated public services and other regulated services.

² Data on the average monthly remuneration in the postal and courier sector in some regions are not published by the CSB due to their confidentiality.

Administratively regulated prices and consumer price index in 2017

	Share in expenditures of residents	Price increase (2017 XII vs 2016 XII)	Inflation component (percentage points)
Regulated public services (natural gas, thermal energy, general postal services, water supply, sewerage services, waste collection)	6.08%	3.8%	0.23
Other regulated services (compensated medication, patient's fee, passport issuance fee, car parking, notary services, passenger transport, pre-school education, etc.)	5.02%	0.4%	0.02
Administratively supervised and regulated prices, total	11.1%	2.3%	0.26
Consumer Price Index (inflation), total	100%	2.2%	2.2

In 2017, compared to the previous year, the overall increase of the consumer prices was 2.2%, while the administratively regulated prices increased by 2.3%. The prices of regulated public services increased by 3.8%. The administratively regulated prices lead to the overall increase of the consumer price index by 0.26 percentage points.

In the regulated sectors supervised by the Regulator, natural gas prices grew most rapidly (by 9.8%) in 2017, waste removal prices also increased (by 6.2%), as did district heating prices (by 3.5%). Changes in service prices in regulated sectors in 2017 increased the overall consumer price index by 0.23 percentage points.

3.5. MARKET CONCENTRATION LEVEL (HHI INDICES)

The market concentration level characterises both the options of users to choose a service provider and the proportion of mutual competition among service providers or market power. The market concentration can be assessed by using data on service providers' turnover by sector and type of service. The market concentration evaluated as an index where each market participant's squared market share is summed to obtain the total index value is designated as Herfindahl–Hirschman Index (HHI). If HHI value is smaller than 0.18, but larger than 0.1, such a market may be regarded as moderately concentrated. HHI value above 0.18 indicates that the market is concentrated.

The market concentration in the electronic communications sector can be evaluated as moderately concentrated in previous years – the index value is stable and fluctuates around 0.16. The market concentration for postal services is rather stable with a trend to decrease slightly and it reached 0.265 in 2016 which indicates that the market is concentrated. Meanwhile the index

value for electricity supply decreased to 0.580³ in 2016; however, the electricity trade is still considered a very concentrated market.

	2014	2015	2016
Electricity trade	0.685	0.670	0.580
Electronic communications	0.163	0.156	0.158
Post	0.317	0.305	0.265

³ In accordance with the latest HHI index data

4. PUBLIC SERVICE SECTORS IN SOCIAL CONTEXT

4.1. HOUSEHOLD EXPENDITURES

Public services must be available across the country and their prices must not be a significant barrier for the reception of services – this process is supervised by the Regulator.

In accordance with the CSB data, the total household consumption expenditures in 2016⁴ on average for one household member were 3995.16 EUR per year (332.93 EUR per month). The information compiled by the CSB about household expenditures according to service types includes all household expenditures related to the relevant service and different unregulated services (taxes, expenditures of building managers, services provided by unregulated service providers, services at negotiated prices) whose numerical quantity or share cannot be precisely determined. Expenditures of household consumption according to service types are shown in the table indicating the total average expenditures on different types of services for households which use the relevant services and the households that do not.

Household consumption expenditures in 2016 (EUR)

Service type	Average expenditures of one household member per month	
	EUR	Share in total expenditures
Total household consumption expenditures	332.93	100.0%
Electricity	11.08	3.3%
District heating	7.7	2.3%
Mobile phone services	5.94	1.8%
Gas	2.83	0.9%
Hot water supply	2.73	0.8%
Collection of sewerage wastewater	2.04	0.6%
Water supply	2.05	0.6%
Waste collection	1.64	0.5%
Landline phone services	0.35	0.1%
Postal services	0.05	0.02%

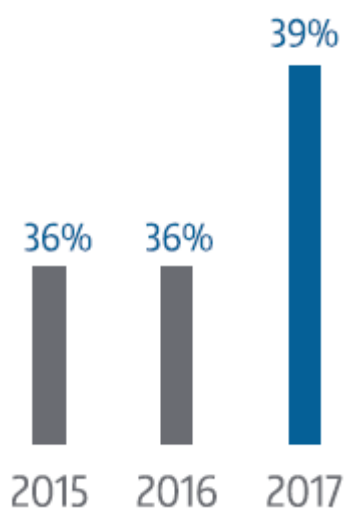
⁴ Considering that until 2017 the CSB published data on household budgets and consumption expenditures of the previous year in the 3rd quarter of each year, the statistics of consumption expenditures in 2016 are used in this report.

4.2. ASSESSMENT BY THE RESIDENTS

Public utilities regulation means the balancing of interests of users and service providers based on the assessment of economically justified tariff proposals.

To ensure this, the Regulator not only supervises the activities of companies and protects the interests of public service users but also explains current developments in the regulated sectors. It is also consistent with the results of a study performed by SKDS⁵ in March 2018 which reveal that approximately half of respondents (44%) think that one of the Regulator's tasks is to protect the interests of residents which are public service users. A growing number of people think that the Regulator exercises its powers sufficiently to influence the prices of regulated public services. 73% of the respondents think that the Regulator's duties include setting and approving tariffs, while 39% think that the Regulator exercises its powers to influence public service tariffs.

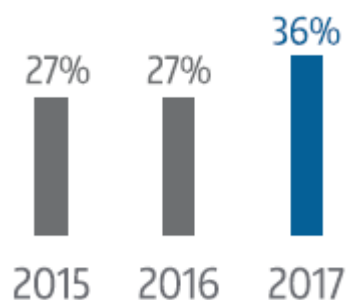
The Regulator sufficiently uses its ability to influence the prices of regulated public services



Out of various supervising institutions in Latvia (i.e. the Bank of Latvia, Consumer Rights Protection Centre, Ombudsman, State Audit Office, Public Utilities Commission, Competition Council, Financial and Capital Market Commission), 36% of the respondents trust the Regulator which is more than a year before. Thus, we can conclude that the tasks for informing the public put forward by the Regulator are being achieved.

⁵ The Regulator's image in the opinion of the public, a survey of residents of Latvia by SKDS, March 2018.

Trust in the Regulator when compared with other supervising institutions in Latvia



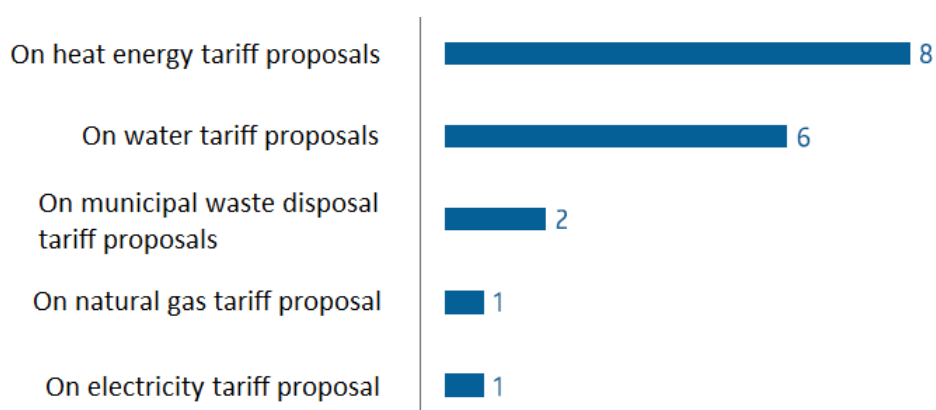
4.3. SOCIAL INVOLVEMENT

Before adopting significant decisions, the Regulator finds out the opinion of public service users, companies, authorities, organisations and other interested parties. The involvement of public grows every year.

In 2017, as in previous years, the tariffs of public services were the most significant topic in the public's opinion. One way how the Regulator informs and involves the public and other stakeholders in the evaluation process of tariff proposals is organising public hearings. Public hearings on tariff proposals are a significant part of tariff approval process; a public hearing is organised in the municipality where the tariff proposal is applicable.

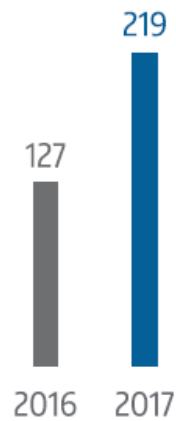
In 2017, a total of 18 public hearings were organised by the Regulator. One public hearing was organised regarding the ten-year electricity transmission system development plan.

Public hearings organised by the Regulator in 2017



Compared with other years, in 2017, there was an increase in the number of public service users who participated in public hearings – every public hearing was attended. Compared with 2016, when more public hearings were organised, the number of participants was higher in 2017.

The number of participants in the public hearings organised by the Regulator



To promote more extensive involvement of the society and non-governmental organisations, the Regulators continued organising informative campaigns in 2017.

What did the Regulator inform about?

Heating season – what will it be like this year

Water tariffs – how they are formed, what affects their size, current tariffs in Latvia

Call charges to other operators' networks in the electronic communications sector: problem and solutions

Roam Like At Home: the current situation and expected changes

Opening of the natural gas market

(in cooperation with the Ministry of Economy, Consumer Rights Protection Centre, Association for the Protection of Consumer Interests in Latvia)

Expected changes in the Mandatory Procurement Component

(in cooperation with the Ministry of Economics, Energy Public Trader, JSC "Sadales tīkls")

The most significant of them was the opening of the natural gas market for households, which was organized in cooperation with the Ministry of Economics, the Consumer Rights Protection Centre, as well as the Association for the Protection of Consumer Interests in Latvia (APCIL). The Regulator's experts, together with representatives of the APCIL and the Ministry of Economics, went to Liepāja, Rēzekne, Jelgava and Riga to explain to the public the most important issues of interest to them about the opening of the natural gas market. The extensive attendance of the events showed the importance of this issue in the users' agenda.

4.4. MERCHANT INVOLVEMENT

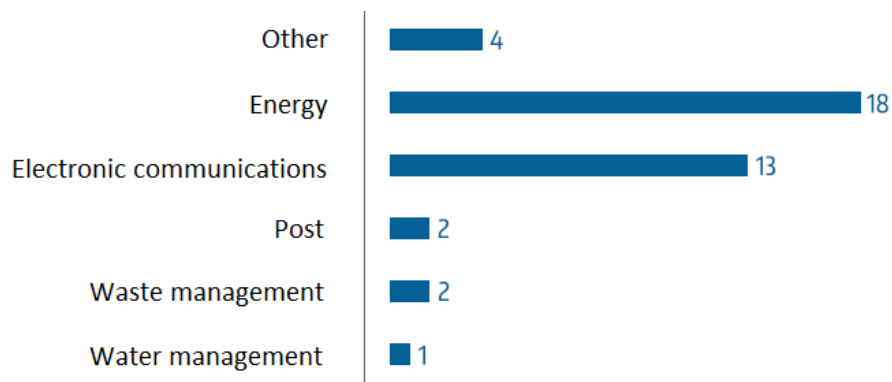
Increasing involvement of merchants in the regulation process; merchants have a more positive view of the performance of the Regulator

The Regulator's decisions are binding for public service providers; therefore, the Regulator encourages merchants to participate in the process of drafting the regulatory framework and decision-making.

Involvement of merchants and finding out their opinions take place in various forms - public consultations, working meetings and sectoral discussions or informative events.

In 2017, the Regulator announced 40 public consultations on various regulatory enactments.

Public consultations announced by the Regulator



In order to promote closer cooperation with public service providers and address uncertainties face to face, the Regulator organized various events for regulated merchants last year. The events were organized to cover all industry merchants, thus ensuring that unclear and important issues are discussed on-site.

Sector events	Sector
Discussion with the electronic communications merchants on net neutrality	Electronic communications
Regional days	Water management
	District heating
Energy Market Forum	Electricity
WAREG	Water management
Meeting with the Competition Council, the Ministry of Transport and the Consumer Rights Protection Centre on roaming	Electronic communications

One of the most significant events in 2017 was a series of measures "Regulator's Regional Days" for water and heat supply companies. The Regulator's experts travelled to six of Latvia's largest cities to meet with local companies on current issues in the water and thermal energy sectors. Based on the results of the survey of the merchants, both the content of the event and the organizational work were evaluated very well.

The results of the survey of regulated merchants conducted by the research centre SKDS also show that the Regulator's communication with the merchants is in line with expectations of the merchants, and each year this rating is improving. Each year, the proportion of regulated merchants, which rate their cooperation with the Regulator as good over the previous year, is growing. 45% of respondents believe that the work of the Regulator has improved over the last year, and this rating is historically highest. In 2015, 36% of the respondents expressed such an opinion.

Companies which claim that the Regulator's work is improving



This confirms that the measures taken by the Regulator to promote cooperation with merchants were justified.

5. NATURAL GAS

The opening of the natural gas market in Latvia – a beginning for new market regulation and competition

5.1. MARKET SUPERVISION

An open natural gas market has resulted in increased competition from one to 35 traders

5.1.1. The origins of the market opening

The natural gas market in Latvia was opened on April 3, 2017. Although the market opening process, both for the Regulator and for other state institutions, was quite challenging, all necessary regulatory enactments that were related to the Regulator's competence were adopted in time so that from April 3 the market participants would be familiar with regulation under the new market conditions.

Before the market opening, JSC "Latvijas Gāze" was a monopoly company, which provided a full cycle of natural gas supply including the storage, transmission, distribution and sale of natural gas. Towards the opening of the natural gas market, the reorganization of JSC "Latvijas Gāze" was carried out to ensure separation of natural gas production and supply from management and distribution services in accordance with the requirements of the Energy Law. Consequently, in December 2016, JSC "Conexus Baltic Grid", a combined natural gas storage and transmission system operator, was established. In January 2017, after carefully assessing all submitted documents and information, the Regulator issued JSC "Conexus Baltic Grid" a license for natural gas transmission and a license for natural gas storage for the next 20 years in order to enable the system operator to provide transmission and storage services. In compliance with the requirements of the Energy Law, JSC "GASO" (a subsidiary of JSC "Latvijas Gāze") was established on November 22, 2017 to perform the function of the natural gas distribution system operator. On December 7, 2017, the Regulator issued a license for the distribution of natural gas to JSC "GASO".

JSC "Latvijas Gāze" still is a natural gas trader and a public trader which will provide household users with the possibility to receive natural gas at the tariff set by the Regulator until January 1, 2019. At the same time, household users, if they have found a more suitable offer, also have the opportunity to change the natural gas trader at the moment. Consequently, households have a free choice to act as a market participant and purchase natural gas at market price or to keep the existing merchant JSC "Latvijas Gāze" and receive natural gas at a regulated tariff.

5.1.2. Market operation

With the opening of the natural gas market, the European Union directives and regulations setting the common rules and principles of the natural gas market operation regarding access to the natural gas supply system, the capacity allocation mechanism for natural gas transmission systems, the balancing rules and the harmonized gas transmission tariff structures are binding for Latvia.

In accordance with the requirements of the Regulation⁶, the concept of the entry-exit system was introduced. This means that natural gas transmission costs are not directly linked to a specific route, as system users can reserve entry and exit capacities in the natural gas transmission system

⁶ REGULATION (EC) No 715/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005

separately and transport natural gas from any entry point to any exit point. The introduction of the entry-exit system, transmission system capacity allocation mechanism and balancing rules substantially changed the principles for setting tariffs for the natural gas system services, as well as conditions for the use of natural gas transmission, distribution system and storage.

A system user which feeds natural gas into the transmission system is required to reserve entry capacity at entry points. If a system user wants to transport natural gas to a storage facility or natural gas transmission systems in other countries, such as Lithuania, the system user shall reserve exit capacity at exit points. To reserve capacity at the entry and exit points of the transmission system, the system user can use yearly, quarterly, monthly, daily and intra-day capacity products. The Regulator has set such deadlines for reserving capacity products, which facilitate the use of the capacities of the natural gas transmission system as efficiently as possible while ensuring that system users can react quickly to changes in the natural gas market and plan their activities in a timely manner. (Regulations on the use of the natural gas transmission system were approved on April 13, 2017 and amended on September 4, 2017).

In order to facilitate the development of biomethane production, natural gas storage facilities and a decentralized natural gas supply system, the Regulator has established the criteria and procedures for the installation and use of a direct line of natural gas - a line joining a separate natural gas production facility (including biomethane) or a natural gas storage with a separate natural gas user's facility. The introduction of such a mechanism increases the ability of market participants to engage in the operation of the natural gas market. (Regulations on the procedure for the establishment and use of direct lines of natural gas were approved on 21 December 2017).

One of the tasks of the Regulator is to protect the interests of users, while simultaneously promoting the development of public service providers. In line with the requirements of the EU Third Energy Package - to protect users - the Regulator introduced a series of conditions that should be met by natural gas and electricity traders. The Regulator defined what information and to what extent should be included in end-user bills and information materials, and how often traders must provide an opportunity for end-users to familiarise themselves with information materials.

The Regulator stipulated in the regulations that energy users should receive information about a user's average energy consumption per month, the price for the billing period, the charge for system services and other services at least once a year before the start of the billing period. The user has the right to request from the trader information about actual energy consumption for at least the previous 24 months. In the view of the Regulator, such a regulation will create users' interest in changing their energy consumption habits. (Regulations on information for end users of electricity and natural gas were approved on March 9, 2017 and amended on December 14, 2017).

One of the objectives of an efficiently functioning natural gas market is an effective separation of natural gas network activities from production and trading activities. In the Energy Law, as the most effective solution, the legislator considered a full ownership unbundling of the natural gas transmission and storage system operator from an energy supply merchant engaged in the production or trade of natural gas or electricity. The ownership unbundling of the combined natural gas transmission and storage system operator is considered to be completed when the relevant operator fulfils all the independence conditions specified in Article 114 of the Energy Law. Before approving and designating a company as a transmission system operator, it shall be certified. By fulfilling the requirements of the Energy Law, the Regulator developed and approved the conditions for the successful certification of the combined natural gas transmission and storage system operator (hereinafter - the operator). The Regulator determined which documents and information should be submitted in order for the operator to confirm that it meets the certification requirements, operates independently and any conflicts of interest between the combined natural gas transmission and storage system operator and energy supply undertakings engaged in the production or trade of natural gas or electricity are eliminated. (Regulations on the Certification of the Combined Natural

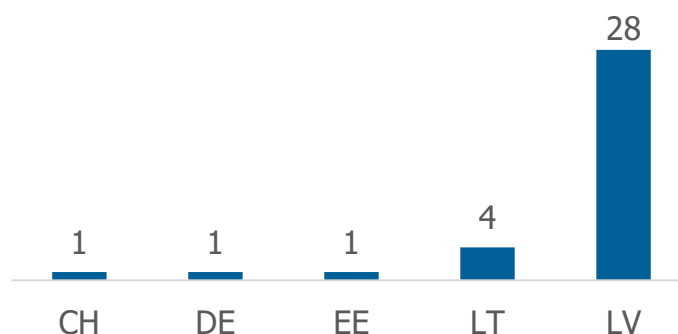
Gas Transmission and Storage System Operator and the Natural Gas Transmission System Operator were approved on February 16, 2017).

In the open natural gas market, the natural gas distribution system operator must operate independently from any natural gas producer, transmission or storage system operator and, in particular, any natural gas trader. The distribution system operator must ensure that all market participants have equal access to the natural gas distribution network. Consequently, the Regulator determined which documents and information the distribution system operator is obliged to submit to the Regulator in order to demonstrate its independence compliance, namely, that it is unbundled from the activities of natural gas production, transmission, storage and liquefied natural gas service provision and trade. (Regulations on the requirements for the independence of the natural gas distribution system operator have been approved on January 26, 2017).

5.1.3. Open natural gas market - market shares and prices

Competition between natural gas traders increased significantly in 2017 due to the market opening. At the end of 2017, 35 traders were registered in the Natural Gas Traders' Register. If we look at the countries of origin of traders, four of the traders are from Lithuania, one from Estonia, one from Germany, one from Switzerland and 28 from Latvia. A comparison of the Baltic States shows that 38 natural gas traders have been registered in Estonia, while in Lithuania 33 traders have received licenses for the sale of natural gas.

Distribution of natural gas traders by countries of origin at the end of 2017



Out of the registered natural gas traders, seven traders started operations in 2017 – JSC "AJ Power Gas", "Enefit" Ltd, "IMLITEX LATVIJA" Ltd, JSC "Latvenergo", JSC "Latvijas Gāze", UAB "Lietuvos Duju Tiekimas" and "Scener" Ltd. With the opening of the natural gas market, the monopoly position of JSC "Latvijas Gāze" no longer exists in the market, as evidenced by a decrease in the retail market share of JSC "Latvijas Gāze" and an increase in the market share of other traders. At the end of the fourth quarter of 2017, the share of the retail market of JSC "Latvijas Gāze" measured by the volume of sold natural gas had decreased by almost half, which is explained mainly by the fact that since the opening of the market the largest electricity producer JSC "Latvenergo" independently buys natural gas on the wholesale market and supplies its thermal power stations TEC-1 and TEC-2.

After assessing the data for the fourth quarter of 2017 according to the sales of natural gas without the natural gas purchased by JSC "Latvenergo" for its CHP plants, the reduction of the market share of JSC "Latvijas Gāze" is in the range of up to 15% due to the successful entry into the natural gas market by such merchants as "Enefit" Ltd, "AJ Power Gas" Ltd and UAB "Lietuvos Duju Tiekimas" which quickly became the largest natural gas traders after JSC "Latvijas Gāze"

and JSC "Latvenergo". Meanwhile, if the volume of sold natural gas does not include the household sector, the decrease in the active market share of JSC "Latvijas Gāze" is just over 15%.

In the last quarter of 2017, the weighted average wholesale price of natural gas at purchase points in Latvia ranged from 16.25 to 21.21 EUR/MWh.

Compared to the beginning of 2017, the wholesale price was 16.88 EUR/MWh; JSC "Latvijas Gāze" purchased natural gas at such a price to supply users in Latvia. The retail price of natural gas offered by traders in the last quarter of 2017 was 21.86 EUR/MWh for corporate final consumers, for which, depending on the amount consumed, end-user additionally covers the distribution system service tariff. No activity was observed in the household sector in 2017, except for some transactions, and natural gas for household users is currently supplied by the public trader JSC "Latvijas Gāze" at a regulated tariff for captive users.

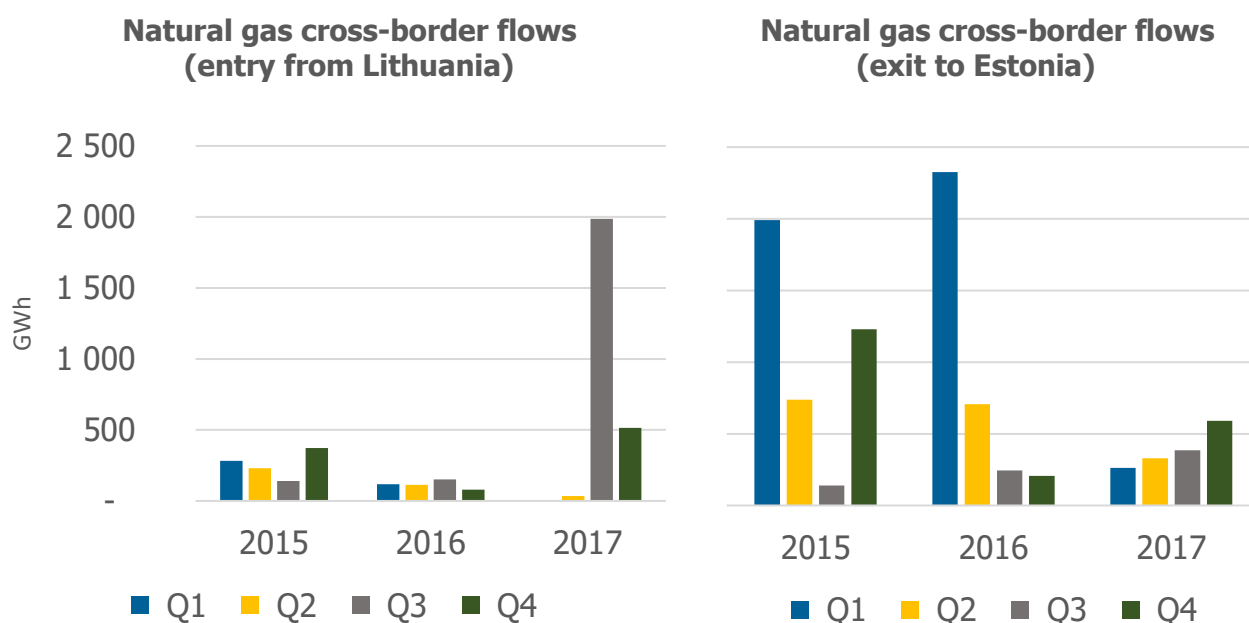
5.2. TARIFFS, TARIFF CALCULATION METHODOLOGIES, TARIFF CHANGES

Changes in the transmission methodology contributed to a reduction in tariffs at the entry-exit points on the Latvian border, contributing to the growth of natural gas flows in 2017

5.2.1. Tariffs

A system operator, when submitting a calculation of a tariff proposal, should include economically justified costs that cover the planned revenue from the provision of the service. An operator does not have the right to include several cost items in both tariffs for storage services and tariffs for transmission and distribution system services - financial investments, receivables, securities and equity participation, funds, stocks and also the share of value of fixed assets financed from financial assistance or financial support of the state, local governments, foreign, European Union, or other international organizations and institutions. At the same time, it should be noted that in 2018 the Regulator continued work on the development of tariff calculation methodologies, thus amending the methodologies in the natural gas sector with the requirements for the combined natural gas transmission and storage operator and the distribution operator to exclude the costs of unfinished construction projects in the calculation of a tariff proposal. In the view of the Regulator, such costs are economically justified when an asset is used in the provision of an efficient service, that is, after commissioning, allowing the operator to recover the costs during the life of the built assets.

On May 30, 2017, the Regulator approved the tariffs of the transmission system service of JSC "Conexus Baltic Grid", which came into force on July 1, 2017. Before that, the tariffs approved by the Regulator in 2008 were in force. The tariffs at entry and exit points on the border of Latvia were reduced 3.7 times. At the same time, as an incentive to use the Inčukalns underground gas storage, a 50% discount was applied to the entry to and exit from the Inčukalns storage. The reduced transmission tariffs at entry – exit points on the Latvian border contributed to entry of natural gas cross-border flows into the Latvian natural gas supply system and promoted the use of Inčukalns underground gas storage.



Incoming natural gas cross-border flows from Lithuania to Latvia's transmission system in the third and fourth quarters of 2017 have increased compared to the previous two years when the natural gas market was closed. From the existing data for the third quarter, where the increase in transit flows is observed at the entry from Lithuania, while the flows decrease at the Latvian exit point to Estonia, it can be concluded that most of the natural gas volume is deposited in Inčukalns underground gas storage and used for the supply of Latvian and Lithuanian users.

5.2.2. Submitted tariff proposals and their evaluation

In 2017, JSC "Conexus Baltic Grid" submitted two tariff proposals to the Regulator for evaluation – "Storage service tariff proposal" on 22 November 2017 and "Transmission system service tariff proposal" on 22 December 2017.

As the operation of the storage model changed under open natural gas market conditions - market participants demanded the most flexible operation mode of the storage facility - JSC "Conexus Baltic Grid" submitted the storage service tariff proposal (hereinafter - tariff proposal) to the Regulator for assessment. The submitted tariff proposal planned to provide users with a number of storage products – bundled unit capacity product, two-year bundled unit capacity product, market product, and virtual counterflow product - to enhance the storage performance. Until the entry into force of new storage service tariffs, the year 2008 tariffs approved by the Regulator were applied to the market.

The total storage service costs of 2018 included in the tariff proposal decreased by 17% compared to the 2017 forecast. The most significant changes were mainly in the following cost items: capital costs, tax costs and operating costs. The reduction of capital costs was related to the decision taken by the Regulator that the rate of return on capital shall be 4.70% and shall be applied to the tariffs for natural gas transmission, distribution and storage services, which came into force in 2018.

During the evaluation process, the Regulator repeatedly requested additional information, as a result of which the products mentioned in the submitted tariff proposal were different from the approved tariff proposal. The Regulator approved tariffs for storage services on April 26, 2018. In the approved tariff proposal, only two product types were defined - market product (fixed-

term) and bundled unit capacity product (available for an unlimited period of time). The Regulator approved the minimum and maximum tariff limits for the natural gas storage service tariff, which significantly differ from the initial tariff proposal.

The tariff proposal for natural gas transmission service was submitted to the Regulator for evaluation, taking into account both the approved changes in the Cabinet of Ministers Regulations No. 312⁷ (hereinafter - Regulations No. 312), which oblige the operator to provide the reserve and its storage for protected customers⁸ from 1 October 2017, and in connection with the auction held by JSC Conexus Baltic Grid in 2017 regarding the storage of the necessary amount of natural gas in Inčukalns underground gas storage to ensure adequate technical entry capacity throughout the heating season at the interconnection of the transmission system with the storage facility.

In the new tariff proposal, the total cost increase is forecasted by about 23%, mainly due to the increase in operating costs - maintenance of property and costs of operating repairs, as well as costs related to the provision of natural gas supply at the interconnection of the transmission system with the Inčukalns underground gas storage. The reduction is mainly in cost items such as capital costs and tax costs. The new tariff proposal simultaneously provides for a 100% discount on entry to and exit from the Inčukalns storage facility. The tariff proposal of natural gas transmission system services is still under evaluation.

5.2.3. Tariff calculation methodologies

Until 2017, the natural gas storage service tariff calculation methodology (hereinafter - storage methodology) provided that tariffs shall be calculated for the injection, storage and removal service. The storage methodology approved in 2017 stipulates that the natural gas storage service is a service of the storage system operator by which the reservation of the natural gas storage capacity is ensured. The tariffs for the storage cycle are calculated at different capacities used by the natural gas storage facility, and the storage system operator is obliged to indicate the tariff calculation in the form of a table with the various values of the natural gas storage capacity used, with an increment of 100 thousand MWh, from the forecasted capacity of the natural gas storage facility to the available capacity of the natural gas storage. The storage methodology provides for the right of the system operator to calculate and include tariffs for storage services in the tariff proposal, which are more appropriately applicable under changing market conditions, such as short-term products for an incomplete storage cycle. (Natural gas storage service tariff calculation methodology was approved on 16 March 2017)

Pursuant to the Energy Law, the Regulator was obliged to issue the Natural gas distribution system service tariff calculation methodology (hereinafter - distribution methodology) until the opening of the natural gas market. So far, natural gas distribution service tariffs were differentiated according to the amount of natural gas consumed by users per year. The distribution methodology provides that natural gas distribution service tariffs may be differentiated not only depending on the amount of natural gas consumed by the users per year, but also depending on the allocation of costs to maintain and develop the distribution system capacity and to provide the natural gas transportation service. A distribution system operator must justify the chosen tariff differentiation principles when submitting a tariff proposal. This approach gives flexibility to the natural gas distribution system operator by choosing a method that most accurately reflects the principles of cost formation and encourages users to reserve

⁷ Amendments to the Cabinet of Ministers Regulations No 312 "Procedures for the Supply of Energy Users and Sale of Heating Fuel During Declared Energy Crisis and in Case of Endangerment to the State" of 28 March 2017.

⁸ Protected customers - households, schools, the State Fire and Rescue Service in accordance with the Cabinet of Ministers Regulations No 312.

and use distribution system capacity wisely. (Natural gas distribution system service tariff calculation methodology was approved on 16 March 2017)

The Energy Law stipulates that the supply of natural gas to captive consumers - household users if they have not used the opportunity to become a market participant and buy natural gas at a regulated tariff - shall be provided by the public trader in accordance with the procedure specified by the Cabinet of Ministers at a natural gas tariff set by the Regulator or, if the Regulator has granted a permit, at a natural gas price determined by the public trader according to the Natural gas price calculation methodology established by the Regulator (hereinafter - price methodology).

The price methodology stipulates that the natural gas price for captive consumers consists of two elements - a fee for the trading service and the natural gas sales price. Until the entry into force of the elements of the natural gas price, the transmission system service component and natural gas storage service component included in JSC "Latvijas Gāze" differentiated natural gas trade end-tariffs approved by the Regulator's decision No 247 of 24 July 2008, trade service tariff for the relevant natural gas volume per year and natural gas trade price shall be included in the price of natural gas which is determined according to the volume of natural gas consumption of the captive consumer per year. The charge for the service of the natural gas distribution system shall be applied in accordance with the differentiated natural gas distribution service tariffs which are currently in force. (Methodology for calculating natural gas price for captive consumers was approved on 27 March 2017)

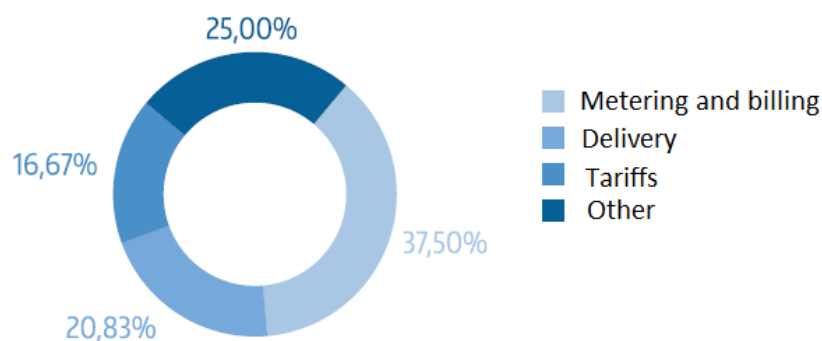
5.3. PROTECTION OF SERVICE USERS

The number of user complaints about natural gas supply services has decreased

The number of complaints in the area of natural gas supply in 2017, despite the opening of the natural gas market regarding which concerns were previously expressed in terms of information available to users, has fallen by 31.43% compared to 2016. This means that users have become more informed due to the active involvement of the Regulator in informing the public about unclear issues in the open natural gas market, meeting with merchants and residents in the regions, providing explanations in the public space on the structure of the open natural gas market, the obligations of merchants, user rights and opportunities in the open market.

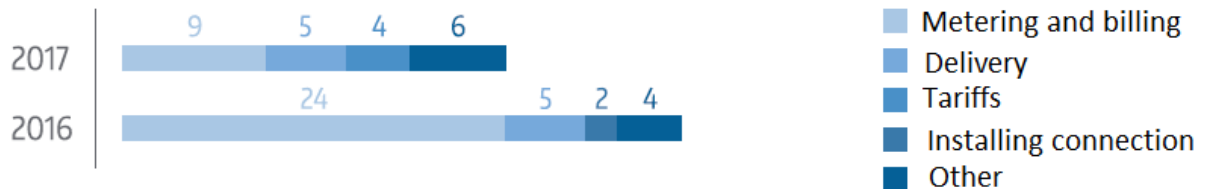
In the natural gas supply sector in 2017, out of 24 received and reviewed complaints, nine (37.50%) complaints were related to metering and billing, five (20.83%) complaints were about supply and system connections, four (16.67%) complaints about tariffs, while six (25.00%) complaints concerned other issues, including the operation of commercial metering equipment and tariff application for captive consumers.

Distribution of complaints received in the natural gas supply by type in 2017 (%)



In 2017 compared to 2016, the Regulator received and reviewed 11 (31.43%) fewer complaints in the natural gas supply sector. Compared to the previous year, there has been a significant decrease in the number of complaints related to metering and billing - fifteen (62.50%) fewer complaints have been received and reviewed, while two (50.00%) more complaints were received in relation to other issues. No complaints were received regarding the installation of connections in 2017. There have also been four complaints concerning tariffs; no complaints about tariffs were received in the previous year.

The number of complaints in the natural gas supply sector by complaint type in 2017 and 2016



In 2017, none of the 24 complaints examined was justified; three complaints were not attributable to the Regulator's competence. At the same time, it should be noted that in 2016, all 35 complaints about natural gas supply were not justified.

Distribution of complaints in the natural gas supply sector by validity in 2017 and 2016



In 2017, four operational compliance inspections of merchant sites were performed during which 33 objects were checked. Five non-compliances were found during the inspections. The found non-compliances were related to the potential equalisation of the incompletely installed gas pipeline (two cases), earthing installation, inadequate electrical installations and lack of operational designations. The identified non-compliances were eliminated within the time limits specified by the Regulator.

5.4. MARKET INTEGRATION

Creation of the Baltic regional market - increased market liquidity and competition, more efficient use of infrastructure.

In 2017, the Regulator actively participated in the establishment of the regional natural gas market. In co-operation with the Baltic regulators, a decision was made to allow transmission system operators to implement a day-ahead indirect capacity auction, making transmission capacity allocation more efficient. On July 1, 2017, the natural gas market operator UAB "GET Baltic" launched an indirect capacity auction in the Baltic markets.

After intensive work throughout the year, the Baltic and Finnish regulators signed the Entry-Exit System Guidelines in November 2017. The guidelines were developed on the basis of the Regulator's proposal to implement a short-term solution and long-term solution for the regional gas market. The short-term solution applies to the Baltic States and intends to maintain each country's transmission system as a separate balancing zone, setting common entry tariffs from January 1, 2019. The long-term solution, on the other hand, envisages the creation of a unified Baltic-Finnish entry-exit zone to set transmission tariffs based on the requirements of the European Commission Regulation⁹ following the construction of the Balticconnector interconnection between Finland and Estonia.

A single entry-exit system and balancing zone means the supply of natural gas to any of the national markets within the system through a simplified way for traders to reserve the transmission system capacity, namely by reserving capacity only at the external entry or exit points of the single entry-exit system and at the entry point from the Inčukalns Underground Gas Storage and exit point to the Inčukalns underground gas storage, contrary to the current situation, when the capacity reservation is also made by a merchant at internal interconnection points. Such a single entry-exit system will provide market benefits - greater market liquidity and increased competition, reducing the impact of JSC "Gazprom" market power, more efficient use of Klaipeda LNG terminal and Inčukalns underground gas storage, as well as more efficient use of natural gas transmission infrastructure.

5.5. SECTOR DEVELOPMENT TRENDS AND CHALLENGES IN 2018

**Valentīns Hitrovs,
Director of the Energy Department**

The most significant changes have taken place in the natural gas supply sector, where the main contributor of changes was the opening of the natural gas market.

In terms of current industry data, almost half of the natural gas consumed in the retail market in 2017 was no longer sold by the incumbent trader, but by other natural gas traders. This success story of market opening is the merit of the relevant regulatory framework, which was adopted by the Cabinet of Ministers and the Regulator within the deadlines set by the Energy Law, as well as the influence of natural gas traders and natural gas users, which had already gained some experience in the open electricity market and actively benefited from the open natural gas market. It is noteworthy that not only local traders have been involved in the free market for natural gas, but also traders from neighbouring countries and European countries such as Germany and the Czech Republic, which shows the timeliness and gradual integration of liberalization measures in the regional market, in line with the economic, technological and security principles of the Third Energy Package.

Within the next year, natural gas retailers will continue to compete with each other in order to attract new users, which will result in a reduction in the traders' average natural gas surcharge (trade fee), which will also reduce the average retail price of natural gas to end users. After the entry of new natural gas traders into market, the quality of supply will improve, traders will be more flexible in their offers, new products will be developed, and customer-oriented service solutions will enable users to choose the most appropriate natural gas trader and product type.

⁹ COMMISSION REGULATION (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas.

In 2018, work will continue on the implementation of the European Commission's Network Code requirements at the national and the regional level, creating a single Baltic-Finnish entry-exit system and balancing zone.

6. ELECTRICITY

Reduction of transmission tariffs, strengthening of market positions of traders, increase of system efficiency and decrease of the average electricity price

6.1. MARKET SURVEILLANCE

The market share of other electricity traders, with the exception of JSC Latvenergo, in terms of volumes supplied to households has more than doubled during the year

6.1.1. Open electricity market - market shares and prices

In Latvia, the electricity market was fully opened to competition on 1 January 2015, as a result of which the price of electricity for households has not been regulated since then; it is determined by the market supply.

In Latvia, merchants which are registered in the Electricity Traders' Register and electricity producers - merchants registered in the Electricity Producers' Register may engage in electricity trade. In the electricity sector, 183 merchants have been authorized to provide public services, of which 111 merchants or 60.66% are active.

As of 31 December 2017, 48 merchants were registered in the Electricity Traders' Register established and maintained by the Regulator, of which 31 (64.58%) were active or started actual operations. In 2017, the Regulator registered seven new traders in the Electricity Traders' Register, while 39 merchants were excluded from the register, because during the year the traders did not start operations, as stipulated by the Regulator's regulations.¹⁰

Electricity Traders' Register in 2017

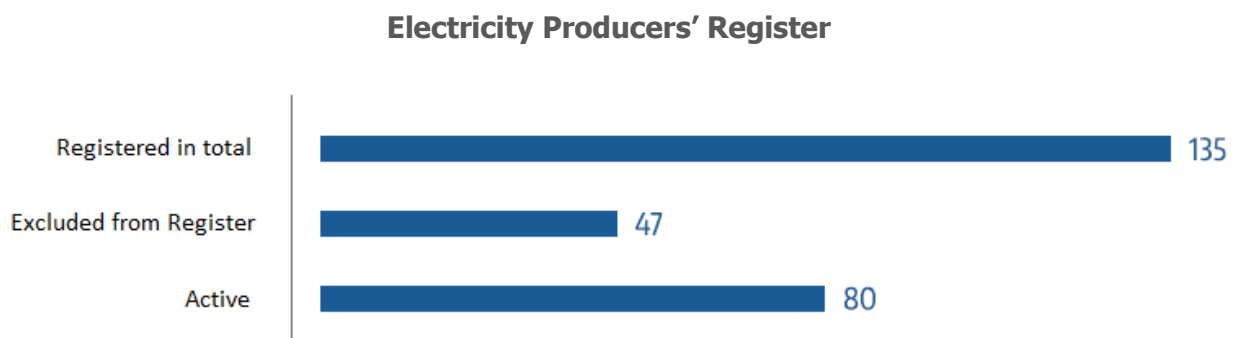


The number of traders has decreased by 40% - from 80 merchants at the beginning of 2017 to 48 merchants at the end of the year. This tendency is due to the initial attractiveness of the liberalized market in order to take advantage of the possibility of registering in the Traders'

¹⁰ The Regulator's decision No 1/10 "Regulations on the registration of energy producers and traders".

Register without actually starting operations. At the same time, such a decrease in the number of traders is explained by the fact that part of the merchants have not been able to participate in the business processes of the electricity market operatively, thus the number of registered companies at the beginning of 2017 is different than at the end of the year. In addition, the development of competition always contributes to the withdrawal of operators who have been unable to continually improve their operations and to withstand changing market conditions in the long term.

As of 31 December 2017, 135 merchants were registered in the Electricity Producers' Register, of which 80 (59.26%) had started operations. In 2017, 47 merchants, which had not started to produce electricity, were excluded from the Electricity Producers' Register - they had not built power plants and put them into operation. The number of electricity producers has decreased by 25.82% during the year - from 182 companies at the beginning of 2017 to 135 companies at the end of the year.



In the electricity sector, the market share of other traders (excluding JSC Latvenergo) according to the volume of electricity sold each year has increased since the liberalization of the respective sector. In 2017, the total increase in market shares of other traders compared to 2016 was almost one fifth or 19.13%. In the household and legal user sector, the dominant electricity trader is JSC Latvenergo, but its market share continues to decline gradually.

According to the volume of electricity sold to household users, the retail share of other traders has increased from 1.34% at the beginning of 2017 to 3.05% at the end of 2017. In the offers of the five major electricity traders¹¹, the weighted average electricity price ranged from 37.69 EUR/MWh to 49.76 EUR/MWh, and the weighted average price¹² for the respective merchant segment was 47.59 EUR/MWh.

This range of price fluctuations is explained by several market factors, including different levels of competition in different regions of Latvia. A lower level of competition can be observed in cases where a trader which simultaneously serves as a regional distribution system operator¹³ provides electricity in its license area without competition from other traders in the region. Consequently, the Regulator, having assessed such a market situation, concluded that the weighted average price of electricity reached even 49.76 EUR/MWh.

The Regulator, considering the offers of all Latvian electricity traders to households, concluded that in the fourth quarter of 2017 the weighted average prices offered to household users ranged

¹¹ The total market share of these merchants in the household electricity user segment amounts to 99.72% of total demand.

¹² The Weighted Average Electricity Price - total revenue from the sale of electricity to total sales of electricity.

¹³ Less than 100 000 users.

from 29.97 EUR/MWh to 64.50 EUR/MWh. It can be concluded that the weighted average electricity price (including some abnormal peak offers) sold to household users in the fourth quarter of 2017 was 49.76 EUR/MWh, which is 2.77% lower by comparison with the fourth quarter of 2016 (51.18 EUR/MWh).

According to the volume of electricity sold to corporate users, the retail market share of other traders has risen from about two fifths or 40.00% in the fourth quarter of 2016 to almost 50.00% in the fourth quarter of 2017. Looking at the five major electricity traders in terms of volumes sold to corporate users¹⁴, the weighted average price ranged from 36.45 EUR/MWh to 49.97 EUR/MWh, while the weighted average price was 40.75 EUR/MWh.

The Regulator, evaluating the offers of all Latvian electricity traders to corporate users, concluded that the weighted average prices offered to corporate users in the fourth quarter of 2017 were higher and fluctuated between 35.01 EUR/MWh and 64.67 EUR/MWh. The Regulator concludes that the weighted average retail price of electricity for corporate users in the fourth quarter of 2017 was 40.49 EUR/MWh, which is lower by 7.09% compared to the fourth quarter of 2016 (43.58 EUR/MWh).

6.1.2. Supervision of merchants

6.1.2.1. Supervision of the transmission system operator and its owner

The electricity transmission in Latvia is performed by the transmission system operator - JSC Augstsprieguma tīkls. On May 30, 2013, the Regulator certified and approved JSC Augstsprieguma tīkls as an independent transmission system operator. JSC Augstsprieguma tīkls annually submits a report on its certification requirements, while the owner of the electricity system annually submits a report on the ability of the electricity system owner to comply with the requirements related to the responsibility of the electricity system owner in accordance with the requirements of the Electricity Market Law.¹⁵ After reviewing these reports, the Regulator decides on the need to certify the transmission system operator.

On March 31, 2017, the Regulator received a report from JSC Augstsprieguma tīkls regarding the compliance of the electricity transmission system operator with the certification requirements in 2016 and also an additional information during the evaluation of the report. After evaluating the information, the Regulator found that when appointing the director of the Energy Market and Infrastructure Department of the Ministry of Economics as a member of the Council of JSC Augstsprieguma tīkls, the Ministry of Economics is represented in both JSC Latvenergo and indirectly in JSC Latvijas elektriskie tīkli and the transmission system operator JSC Augstsprieguma tīkls. Hence, the interests of two separate public bodies - the Ministry of Economics and the Ministry of Finance - are merged in JSC Augstsprieguma tīkls. This situation contradicts the factual situation, which was confirmed by law and compliant with the adoption of the certification decision by which JSC Augstsprieguma tīkls was certified.

In November 2017, the Regulator decided to recognize that JSC "Augstsprieguma tīkls" will meet all certification requirements as soon as JSC "Augstsprieguma tīkls" complies with the requirement to take appropriate measures by 1 February 2018 in order to eliminate the non-compliance. Until the set deadline, JSC Augstsprieguma tīkls had eliminated the non-compliances and currently performs the duties of an independent transmission system operator.

¹⁴ The total market share of these traders in the corporate user segment is 91.24% of the total demand.

¹⁵ Article 21² of the Electricity Market Law.

At the same time, the Regulator assessed the compliance of the activities of JSC Latvijas elektriskie tīkli with the requirements of independence in accordance with the Energy Market Law. JSC "Latvijas elektriskie tīkli" is a subsidiary of JSC Latvenergo, which ensures asset monitoring and management of Latvian transmission networks, as well as attraction of financing for the maintenance of existing networks and construction of new ones. As of 13 January 2015, the Board of JSC Latvijas elektriskie tīkli consists of one member of the Board who is also the Chairman of the Board.

According to the Electricity Market Law, JSC "Latvijas elektriskie tīkli" as a separate capital company, which is part of JSC "Latvenergo", has to be separated from electricity generation, trading and distribution activities. In order to ensure this, JSC "Latvijas elektriskie tīkli" has to comply with several conditions. Firstly, its board members cannot simultaneously hold positions in the vertically integrated electricity merchant's structures, which are directly or indirectly responsible for generation, trading and distribution activities in their day-to-day operations. Secondly, JSC "Latvijas elektriskie tīkli" must be guaranteed the right to make decisions independently; thirdly, JSC "Latvijas elektriskie tīkli" may use only such services of the vertically integrated electricity supply company that ensure the confidentiality of the commercial information of the electricity system and market participants at the disposal of JSC "Latvijas elektriskie tīkli".

Having assessed the report of JSC "Latvijas elektriskie tīkli" for 2016, in which the merchant confirmed that all the above mentioned independence conditions were complied with, the Regulator confirmed that the operation of the owner of the electricity transmission system operator JSC "Augstsprieguma tīkls" is in compliance with the requirements of independence.

Every year the Regulator approves the development plan of the transmission system operator for the next 10 years and monitors its implementation. The development plan includes several projects that will ensure further integration of Latvia into the single European Union market, creating a strong electricity transit corridor through the Baltic States and increasing the security of electricity supply in the region, as well as promoting electricity trade. At the same time, the implementation of the plan will ensure synchronization of the Baltic States' electricity systems with the Continental European electricity system. Over the next few years JSC "Augstsprieguma tīkls" plans to start reconstruction of substations "Daugavpils" and "Krustpils", at the same time it is planned to carry out several renovations in 330 kV electricity transmission connection "Kurzeme Ring".

The Regulator, considering all the information received, acknowledged that the development plan is in line with the European Community Network Development Plan and the fulfilment of the obligations of the transmission system operator stipulated by the Electricity Market Law, including ensuring the security of the electricity system in accordance with the requirements of the Network Code, prevents cross-border congestion over the next 10 years, taking into account the volume of electricity market transactions in the region, new interconnections between Lithuania and Sweden, as well as Lithuania and Poland, the operation of the power exchange, and the need to ensure the appropriate transmission capacities. Consequently, the Regulator approved the electricity transmission system development plan for 2018-2027.

6.1.2.2. Supervision of distribution system operators

In the territory of the Republic of Latvia, the electricity distribution service is provided by 11 distribution system operators to which the Regulator has issued licences; every operator has its own operational territory. JSC "Sadales tīkls" ensures 99% of electricity supply to consumers with an active electricity licence until 30 June 2027.

At the end of 2017, the Regulator issued licenses to four distribution system operators for the next 20 years, which will continue to provide the distribution service to its users - "VATS" Ltd in the Ventspils Free Port territory, "LAUKTEHNIKAS ENERĢĒTIKĪS" Ltd in Valmiera, "VANGAŽU ELEKTRIKĪS" Ltd in Vangazi, Inčukalns municipality, and the state JSC "Latvijas dzelzceļš", for which the license area - part of the territory of the Republic of Latvia - is defined as a geographical area map in electronic format. The operating areas of licenses issued to distribution system operators have been specified as clearly identifiable geographical areas, which have been agreed upon with JSC "Sadales tīkls", providing the users with accurate information about public service providers in a particular geographical area.

Meanwhile, for TLA Dārzeni Ltd, which was licensed for distribution services until 18 June 2021, the license area was clarified in 2017 in accordance with the territory where electricity distribution services are currently provided by "TLA Dārzeni" Ltd. Changes in the license area of "TLA Dārzeni" Ltd were made because territory construction and power supply infrastructure had changed in the operational zone of the license.

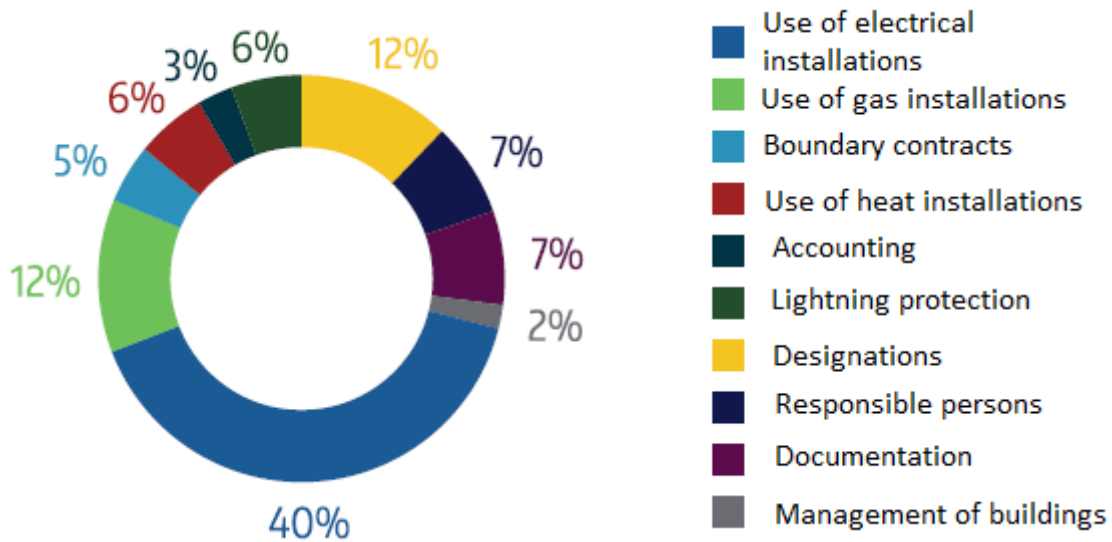
As every year JSC "Sadales tīkls" is obliged to submit to the Regulator by 1 April a report on the compliance of the distribution system operator with the independence requirements and fulfilment of the compliance program in the previous calendar year.

On July 6, 2017, the Regulator's Board adopted a decision on the compliance of the distribution system operator JSC "Sadales tīkls" with the independence requirements, confirming that the measures taken by JSC "Sadales tīkls" to ensure independence are sufficient. This means that the members of the Board of JSC Sadales tīkls are not involved in the entities of the vertically integrated electricity supply company – JSC Latvenergo - which are directly or indirectly responsible for the production, transmission and trade of electricity in their daily operations. The members of the Board of JSC Sadales tīkls are granted the rights irrespective of the vertically integrated electricity merchant and the holding company JSC Latvenergo to make decisions regarding the assets necessary for the operation, maintenance or development of the distribution system. JSC "Sadales tīkls" has developed a compliance program, which defines the duties of certain employees and the measures to be taken in order to avoid discriminatory actions and ensures proper control of the compliance program.

6.1.2.3. Inspections of electricity supply merchants

It is the Regulator's responsibility to carry out control of the facilities of electricity supply merchants (system operators and electricity producers) in order to verify the impact of a commissioned facility on the security of electricity supply. In 2017, the Regulator carried out the control of the compliance of 31 merchant facilities, during which 101 objects were inspected. During the inspections, 107 non-compliances were found in 29 inspections (94% of the total). 71 non-compliances were corrected in 2017, the remaining non-compliances according to the Regulator's instructions have been eliminated in 2018 or will be eliminated during 2018.

Groups of found non-compliances



The highest number of non-compliances - 43 cases - was found in the operation of electrical installations. In 12 cases, there were non-compliances with regard to equipment earthing, in 11 cases the periodicity of preventive measurements of electrical installations was not observed. The other non-compliances were related to shortcomings in the operational designations of electrical installations, the general condition of premises and equipment.

Meanwhile, the second largest number of non-compliances was found in the operation of gas equipment. The Regulator identified 13 non-compliances, of which in six cases incomplete or no installation of the gas pipeline potential equalisation was carried out, in six cases non-compliances were found regarding the operation of gas leak detectors. In 13 cases, the non-compliances were related to incomplete designations in facilities and deficiencies in the documentation presented by merchants (eight cases). In eight cases, there was a lack of designation of the persons in charge of the operation or no valid certificates of knowledge for the operation of the equipment in question were presented to the responsible persons.

Non-compliances were also identified with respect to energy metering boundary acts and energy metering equipment. In a number of cases, non-compliances regarding lightning protection of facilities, as well as inadequate building construction status, operation of heat installations and buildings were recorded.

Most of the non-compliances in the operation of the facilities found during inspections do not directly affect the reliability of the electricity supply, but may, in specific circumstances, cause significant disruption of production processes and damage to equipment. The most significant non-compliances were eliminated within the deadlines specified by the Regulator.

6.2. MARKET INTEGRATION

Integration of the Latvian electricity market into the single European electricity market - introduction of market connection mechanisms

In 2017, the Regulator continued to implement the European Union Network Codes and Guidelines to form a unified, coordinated and appropriate coupling of the day-ahead and the intraday electricity markets. In 2017, the Regulator, together with other national regulatory authorities of the European Union's energy sector, approved a number of documents, the fulfilment of which is a prerequisite for ensuring the market coupling process in the European Union.

The following documents were approved as part of the Capacity Allocation and Congestion Management Guidelines:

- a plan for joint implementation of the functions of the electricity market coupling operators. The plan defines how the European Union power exchanges will work together on common procedures, algorithms, inter-zone capacity data and common day-ahead and intraday results and other mutually coordinated activities.
- A common network model methodology that includes the creation of a coordinated set of key characteristics of power systems and its use in the development of different scenarios and in the process of capacity calculation. The deadline for guaranteeing the reserved capacity for the day-ahead market is one hour before the closing time of the next day market, which must be implemented in each of the power calculation regions after the approval of the capacity calculation methodology.

Accordingly, the Methodology for the creation of a single allocation platform and allocation of costs for future capacity allocation (hereinafter - methodology) was approved within the framework of future capacity allocation guidelines. The methodology foresees that as of 1 January 2019, those interconnections which are congested and where long-term transmission rights have been implemented, incl. also the Latvian - Estonian interconnection, auction procedures will be provided by a single platform. At the same time, the Methodology on the production and load data acquisition for future capacity allocation was approved.

In May 2017, in co-ordination with other regional regulators, the Regulator decided that the Latvian transmission system operator JSC "Augstsprieguma tīkls" in cooperation with the Lithuanian transmission system operator should ensure that other long-term inter-zone risk hedging products are available on the Latvian-Lithuanian trading area border to provide for the functioning of wholesale electricity markets. Such a decision was made after the Regulator had investigated the electricity market hedging instruments and concluded that insufficient hedging opportunities¹⁶ were found in the Lithuanian trading area, which necessitated the introduction of additional hedging products in the Lithuanian trading area, incl. also ensuring that risk hedging instruments against fluctuations in the total system price and price differentials between trading zones are available at the border of the Latvian and Lithuanian trading area.

¹⁶ *hedging opportunities* – combinations of products or products offered in future markets against day-ahead price fluctuations in the respective trading area.

On October 16, 2017, the national regulatory authorities of the Baltic capacity calculation region (Estonian, Latvian, Lithuanian, Polish, Swedish and Finnish regulators) signed a Memorandum of Understanding (MoU) to ensure coordination and a coordinated opinion on the region's TSO or nominated electricity market operator in accordance with the proposals submitted on the relevant Network Code and Guidelines.

6.3. TARIFFS, OTHER METHODOLOGIES, TARIFF CHANGES

In 2017, the approved transmission system service tariffs are lower compared to the tariffs approved in 2015, and the evaluation of distribution system service tariffs reflects the increase in efficiency of the system.

6.3.1. Tariffs for transmission system services

Since January 1, 2015, the electricity market has been opened for households, thus electricity prices for households are determined by the market, but the transmission and distribution system services are regulated services.

When submitting a tariff proposal, the transmission system operator shall include in the tariff proposal only the assets and activities related to the transmission system services. The costs must be technologically and economically justified, necessary for the efficient provision of transmission system services. Capital costs, operating costs, taxes and cost adjustments related to the deviations of forecasts from previous periods shall be included in the electricity transmission system service tariffs.

Transmission system services are provided by JSC Augstsprieguma tīkls. In 2017, new tariffs for electricity transmission system services (hereinafter - transmission tariffs) were approved, which entered into force on 1 June 2017. In autumn 2016, JSC Augstsprieguma tīkls submitted to the Regulator a new tariff proposal for transmission system services (hereinafter - tariff proposal) mainly due to changes in capital and operating costs. Changes in the cost of capital were determined by the growth in the renewal and development of the investment system, which led to an increase in the value of fixed assets. At the same time, reduction of the rate of return on capital to 4.43% by the Regulator led to a reduction in the rent of transmission assets.

Accordingly, the change in operating costs is related to the increase in personnel and operating costs as the system operator's functions increase, the increase in the cost of maintaining emergency power reserves, as well as the lower costs of electricity losses and technological process in the transmission system in line with the forecasts of future prices of electricity exchange transactions.

When evaluating the total accrued revenue from congestion management, the Regulator found that the accumulated congestion management revenues can be used in accordance with the requirements of the Regulation¹⁷ to cover the technically and economically justified costs related to the provision of transmission services, which means a tariff reduction. Consequently, the Regulator allowed JSC "Augstsprieguma tīkls" to allocate no more than 6500 thousand EUR from the accrued congestion revenue per year until 2019 as additional revenue in electricity transmission system service tariffs in order to ensure the compliance of JSC "Augstsprieguma tīkls" profitability with the requirements of the methodology.

¹⁷ Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003.

Total costs covered by tariffs decreased by 3% or 1.9 mln. EUR against the transmission tariffs approved for 2015. The cost reduction was directly felt by the users of electrical installations connected to the high-voltage grid - large manufacturing companies and the largest distribution system operator JSC "Sadales tīkls".

6.3.2. Distribution system service tariffs

On 1 August 2016, the tariffs of the electricity distribution system services of JSC Sadales tīkls entered into force. In 2017, the Regulator assessed the approved cost estimates of the tariff calculation by comparing them with the actual operator's costs. The Regulator concluded that JSC "Sadales tīkls" performed a very precise forecast of electricity volume. Meanwhile, the actual total costs increased by 3% compared to the forecasted costs, which was largely determined by JSC "Sadales tīkls" revaluation of fixed assets in 2016. The overall cost reduction factor was the reduction of transmission system service costs after the Regulator reduced the tariffs of the electricity transmission system services.

At the same time, the Regulator evaluated information on the requested volume of the system load, concluding that users have been active in reviewing their required load, as a result of which the total load requested by users decreased by 6% in the first tariff reporting year.

6.3.3. Methodologies

On September 14, 2017, the Regulator adopted the Methodology for Calculating Mandatory Procurement and Capacity Components (hereinafter - MPC Methodology). The MPC methodology has been developed on the basis of the amendments to the Electricity Market Law of 23 November 2016 and provides for a new procedure for covering the costs of JSC "Enerģijas publiskais tirgotājs" in connection with mandatory procurement.

Until December 31, 2017 both the costs of the mandatory procurement and the costs of the installed electrical capacity were compensated only by the electricity end-users in proportion to their electricity consumption, but from 1 January 2018 the costs are borne by all end users. This means that one part of the cost is covered depending on the amount of electricity consumed (variable part), while the other part depends on the voltage level of the electricity connection and the consumption group (fixed part).

On November 23, 2017, the Regulator approved the mandatory procurement and capacity components, which came into force on January 1, 2018 and their average value was 25.79 EUR/MWh.

6.4. PROTECTION OF SERVICE USERS

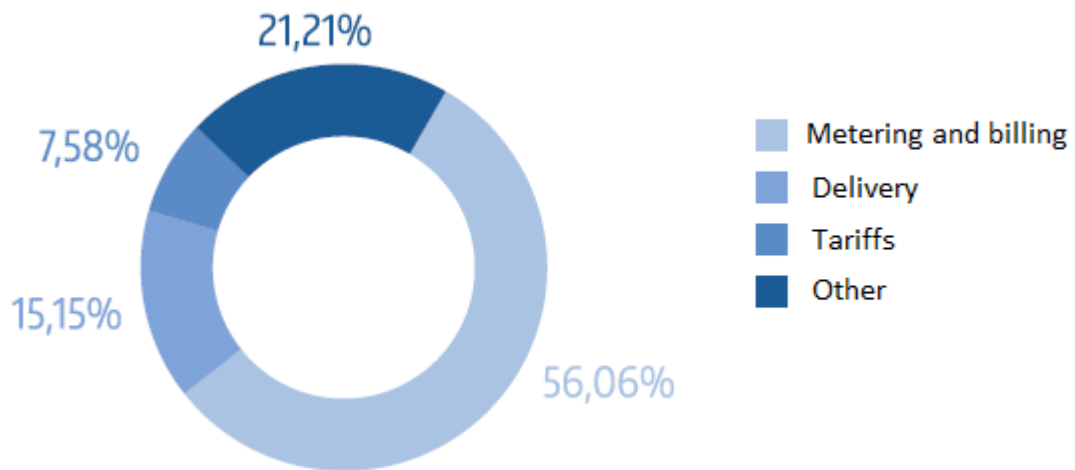
The number of complaints in the electricity sector has decreased by 36.54% - the quality of services and public awareness are increasing

6.4.1. User complaints

In the electricity sector, users complained the most about electricity metering and billing, namely, issued invoices, settlement procedure and volume of measured and used electricity.

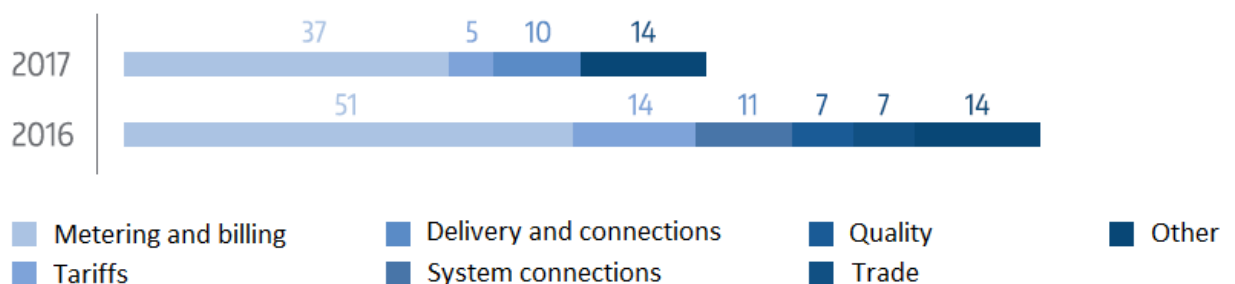
In 2017, out of 66 complaints received and reviewed, 37 (56.06%) complaints were related to metering and billing, ten (15.15%) complaints about delivery and connections, five (7.58%) complaints about tariffs, while fourteen (21.21%) complaints concerned other issues. In 2017, no complaints were received regarding the quality of electricity compared to 2016, when seven complaints of this kind were received and dealt with.

Distribution of complaints received in the electricity sector by type in 2017 (%)



In 2017, the Regulator received 38 fewer (36.54%) complaints in the electricity sector compared to 2016. Compared to 2016, there has been a significant decrease in the number of complaints related to metering and billing regarding which 14 fewer (27.45%) complaints were received and tariffs where the number of complaints decreased by nine (64.29%). No complaints were received about quality and trade in 2017. Meanwhile, the number of complaints related to other issues remained unchanged - fourteen complaints in both 2017 and 2016. In 2017, ten complaints about supply and connections were received; no complaints were received about these issues in 2016.

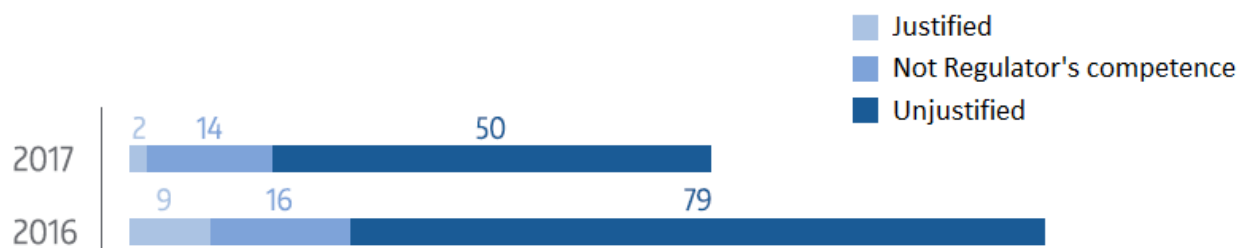
Number of complaints in the electricity supply by type in 2017 and 2016



In 2017, only two (3.03%) of the 66 complaints in the electricity sector were justified. 50 (75.76%) of the complaints were unfounded, but 14 (21.21%) did not fall within the Regulator's competence. It should be taken into account that the Regulator is competent to evaluate the operation of a public service provider only to the extent stipulated by the Regulations of the Cabinet of Ministers No 50 "Regulations Regarding the Trade and Use of Electricity" and other special regulations of the energy sector. Consequently, dispute settlement over losses, payment

documents or debt collection is not within the competence of the Regulator. They are reviewed by the court in accordance with the procedure established by the Civil Procedure Law.

Breakdown of complaints in the electricity supply by validity in 2017 and 2016



Upon the receipt of the information, the Regulator found that there were a number of uncertain issues related to the method of equalized payment settlement in retail electricity trade. Household consumers are most confused by the mismatch between meter readings and unified monthly payments. The Regulator has repeatedly attempted to provide users with as much explanation as possible that the equalized payment constitutes the same amount each month, but the amount may change if the user's consumption changes. Thus, once a year the trader performs a recalculation by comparing the amount of electricity actually consumed with the amount that was paid for and calculates the new amount of the equalized payment. The difference between consumption and payment is included in the new equalized payment. The difference between actually consuming more or less than expected is offset within the next 12 months. The Regulator invites users to consider the offered payment methods responsibly and to choose a payment option that is clearer, more convenient and more secure for each individual consumer.

6.4.2. Service quality

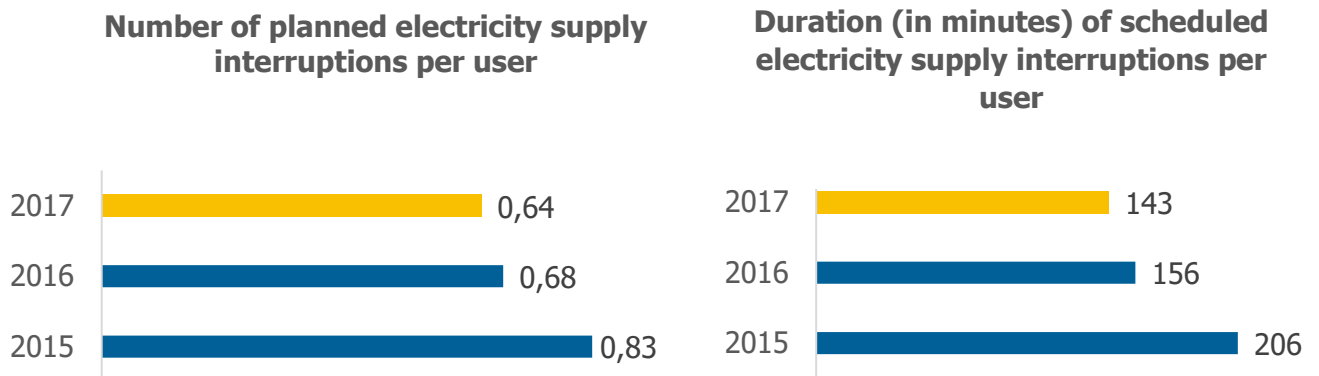
The Regulator's duty in accordance with the requirements of the law¹⁸ is to monitor the quality of distribution services provided by electricity distribution system operators (system operators). The Regulator has concluded that the quality of electricity supply in Latvia is gradually improving every year, but there are still a number of shortcomings that need to be eliminated.

6.4.3. Security of electricity supply

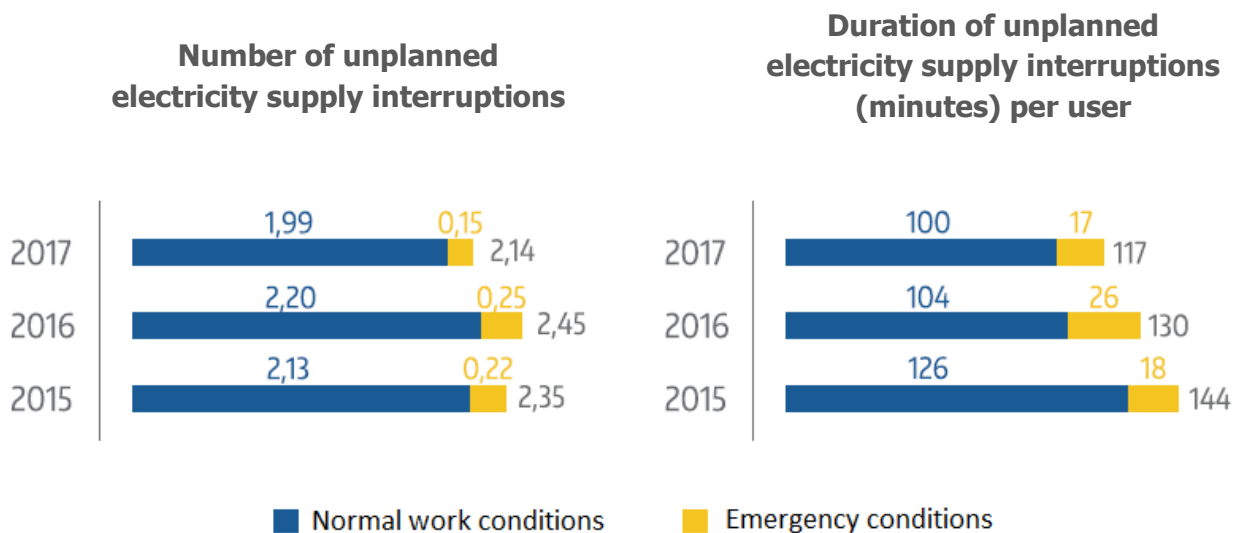
The Regulator has concluded that in 2017, compared to 2016, the duration and number of planned and unplanned electricity supply interruptions has decreased. The security of electricity supply depends on power supply interruptions and voltage drops. Users expect high reliability of electricity supply at the lowest possible tariff, few voltage interruptions and the shortest possible interruption time. Therefore, the task of system operators is to reduce these interruptions with as little investment as possible. In the situation of the monopoly position of modern distribution networks, the role of the Regulator is to control this process so that the system operator ensures the reliability of the users' electricity supply at economically justified costs.

¹⁸ Law on Regulators of Public Utilities.

The security of electricity supply is measured by two indicators - the number and duration of electricity supply interruptions. In addition, the security of electricity supply also depends on the proper operation of electricity supply facilities.



The Regulator has concluded that in 2017 there was less than one scheduled interruption per user on average and it lasted for an average of 2.4 hours.



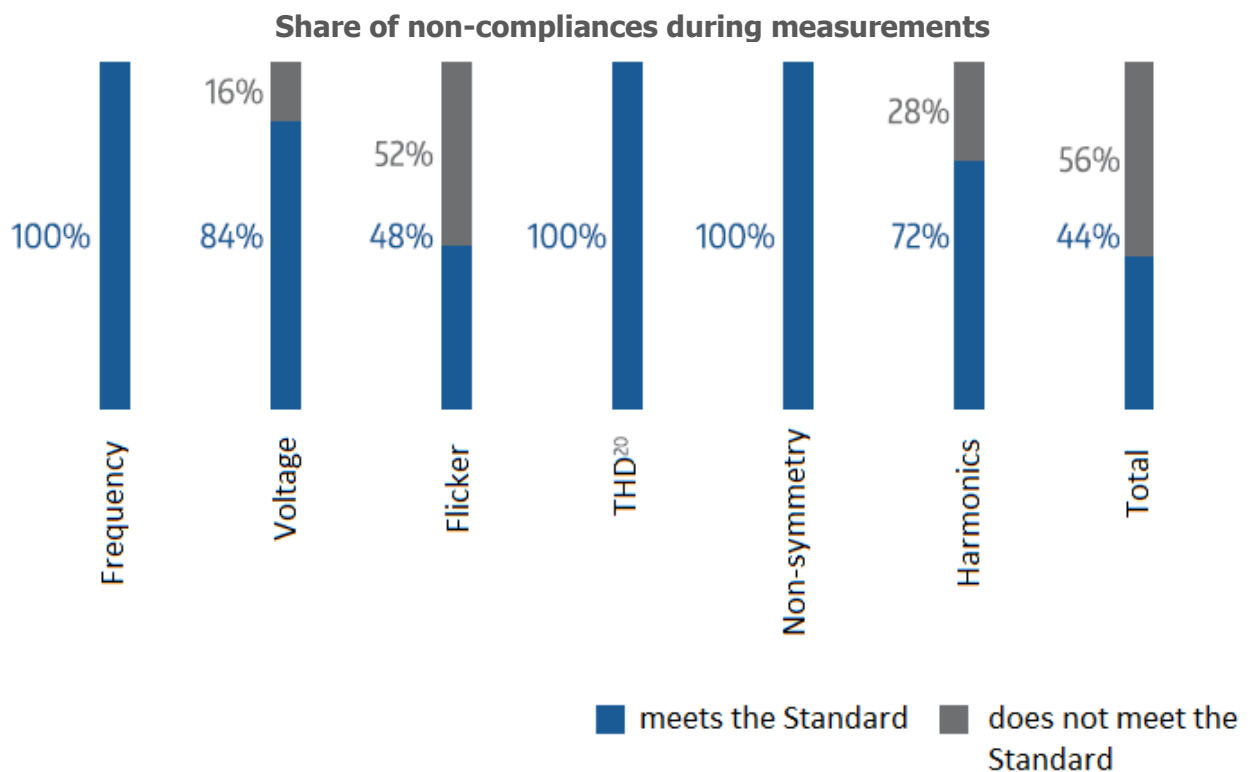
The Regulator has concluded that in 2017 unplanned power supply interruptions per one user happened twice on average and lasted for less than two hours. The trend of the decreasing duration of unplanned interruptions continues and starts stabilizing, which indicates that the funds invested by the system operator in the reconstruction and maintenance of the distribution network infrastructure are adequate to maintain the achieved security of electricity supply and the duration of unplanned power interruptions. In addition, the indicator of unplanned power supply interruptions is approaching the average level set by European countries, which means that JSC Sadales tīkls provides an ever-higher quality service to its users.

6.4.4. Quality of voltage and electricity supply

In 2017, the Regulator carried out the measurement of the characteristics of electricity supply quality and electricity supply networks' voltage of 61 system operators and analysed their

compliance with the Standard¹⁹. Non-compliances with the characteristics of the power supply quality and electricity supply networks' voltage specified in the Standard were found in 34 cases. The most frequent non-compliance was found for the characteristic "Flicker" (32 cases), as well as harmonic distortions for individual harmonics (in 17 cases).

The Regulator concludes that most of these non-compliances with the quality requirements have been found in rural areas due to the fact that in rural areas long power lines built in the 1970s and designed for small loads (~ one kilowatt) were still being used. In contrast, the cross-section of these lines is insufficient for the capacities of modern electrical equipment.



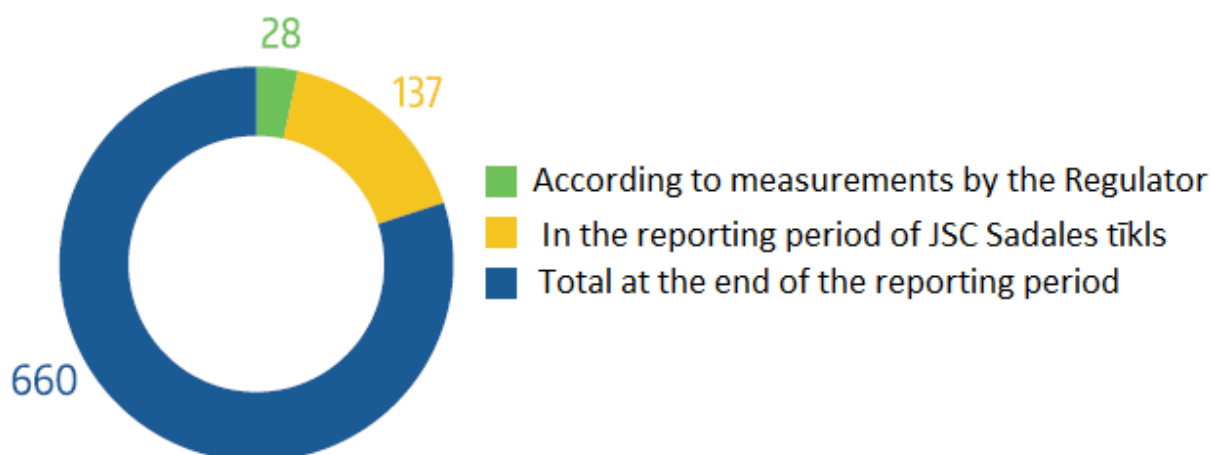
In all cases of non-compliance, system operators have submitted to the Regulator an action plan to eliminate the non-compliances.

Users are entitled to pay half the tariff of the distribution system service for inappropriate quality of voltage. During 2017, the reduced tariff was applied to 137 users, including 28 users for whom the Regulator had performed voltage quality measurements. In general, a reduced tariff was applied to 660 users at the end of the reporting period.

¹⁹ Standard LVS EN 50160: 2010 "Voltage Characteristics of Public Power Supply Networks", which is stipulated as mandatory by the Cabinet of Ministers Regulation No 759 "Regulations on voltage requirements of public electricity supply networks" of 4 October 2011.

²⁰ Cumulative distortion coefficient of the supply voltage sinusoid

A lower tariff was applied for users



6.5. SECTOR DEVELOPMENT TRENDS AND CHALLENGES IN 2018

Valentīns Hitrovs,
Director of the Energy Department

The Regulator and the Baltic and Nordic regulators conducted an investigation into the power market hedging instruments to decide whether, in addition to the existing financial transmission rights between the Latvian and Estonian trading zones, it is also necessary to introduce long-term transmission rights between the borders of other trading areas. The Latvian, Estonian, Swedish, Finnish, Polish and Lithuanian regulators agreed, in coordination with each other, that in the Baltic electricity market it is necessary to activate the financial electricity market hedging instruments offered by the NASDAQ Financial Instruments Exchange. According to this decision, the transmission system operators of the Baltic region have submitted a document for the implementation of the decisions of the regulators, which will be evaluated in 2018.

As of January 1, 2018, the Estonian, Latvian and Lithuanian electricity transmission system operators will have the opportunity to introduce the Baltic Balancing Market Model, which provides for uniform balancing market rules for the Baltic electricity transmission system operators. The Baltic Balancing Market Model has been developed taking into account the development trends of the European electricity balancing market. The creation of the Baltic Balancing Market Model will serve as a basis for the creation of a European balancing market. (Regulator's amendments to Network Code were approved 14 December 2017).

In 2018, work will continue on the implementation of the European Commission's guidelines both at European and regional level. The Regulator will also have to analyse the implementation of the intraday market and its costs, and cost allocation ratio at regional and national level.

At the same time, significant work will be launched in 2018 on the implementation of other European Commission Network Codes and Guidelines, while continuing to work on the development and management of market coupling processes, validating documentation at different levels and analysing market coupling operations, financial and technical aspects.

7. ELECTRONIC COMMUNICATIONS

"Roam like at home" regulation, evolution of the new 5G mobile technology, normalization of call charges to networks of other operators

7.1. MARKET SURVEILLANCE

7.1.1. Regulated services

The Regulator monitors eight different electronic communications services in the electronic communications sector including voice telephony services, public data and electronic message transmission services, leased line services, public Internet access services, broadcasting services for radio or television programs on public electronic communications networks, access services, and interconnection services.

7.1.2. Dynamics of the list of electronic communications merchants

In the electronic communications sector, 15 merchants announced the start of operation in 2017, while 59 merchants were excluded from the list of electronic communications merchants, thus at the end of the year the service was provided by 286 electronic communications merchants.

The reason for the exclusion of merchants is related to the amendments to the Law on Regulators of Public Utilities of 22 November 2017, which changed the calculation of the regulatory fee by introducing a minimum fee of 200 EUR per year from 1 January 2018. Along with changes in the procedure for calculating the fee, many registered electronic communications merchants, who had not started their activity in the sector so far, or whose turnover was very small, evaluated their profitability and announced the termination of their activity, offering existing customers to choose services provided by other electronic communications companies. Consequently, the list of electronic communications merchants was shortened more rapidly than in previous years, approaching the actual number of operational service providers in the sector.

7.1.3. Allocating scarce resources - radio frequencies for commercial purposes

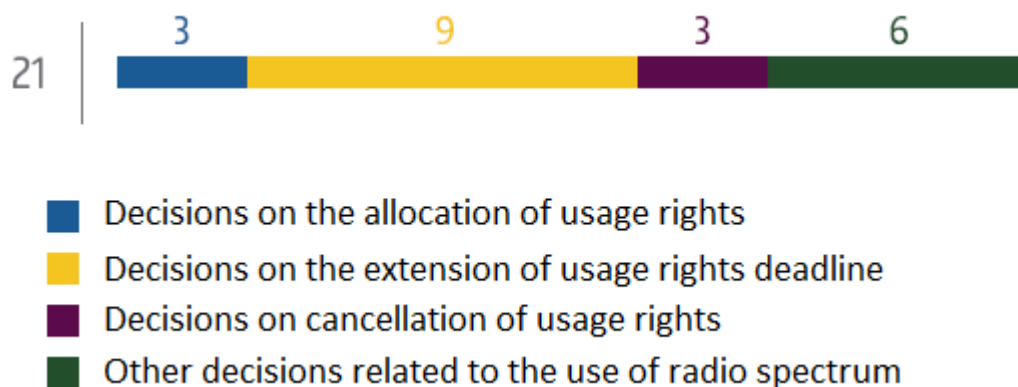
One of the tasks that the Regulator performs in the electronic communications sector is the allocation of radio spectrum rights. The Regulator grants the right to use the radio spectrum for commercial purposes in the bands of the 18 radio frequency bands only by tender or auction. Upon receipt of an electronic communications merchant's request for the granting of the right to use the radio spectrum for commercial purposes, the Regulator shall issue a call for a tender or an auction for the granting of these rights and shall decide on those rights of use within eight months.

In 2017, the Regulator received a request from an electronic communications merchant for the allocation of rights to use the radio frequency spectrum in 3400 MHz - 3450 MHz and 3650 MHz - 3700 MHz range for commercial activities in the Republic of Latvia from 1 January 2019. The Regulator had to take a decision on granting the requested radio spectrum usage rights no later than 12 December 2017.

On November 27, 2017, the Regulator organized an auction and on December 7, 2017 the requested usage rights were granted to the electronic communications merchant by the decision of the Regulator. In 2017, the Regulator adopted 21 decisions related to the use of the radio

spectrum resource in the Republic of Latvia. Of these, three decisions were taken on the granting of rights of use, nine decisions on the extension of the rights of use, three on the cancellation of the rights of use and six other decisions on the use of the radio spectrum.

Decisions taken by the Regulator on the use of radio spectrum resources in the Republic of Latvia



7.1.4. Allocating scarce resources – numbering

Since 2004, the Regulator has introduced and re-optimized the number portability service if a user switches to another operator. The use of the service is therefore increasing every year. Currently, operators provide this service within one business day or another time agreed with the user. According to the data of the state JSC "Elektroniskie sakari", in 2017, 1.27% of fixed and 4.2% of mobile service users changed the operator by retaining the previous number.

Numbering allocations in 2017

Numbering type	Allocated		Cancelled	
	Numbers	Companies	Numbers	Companies
Public fixed telephone network numbers	27 000	8	25 600	6
Public mobile telephone network numbers	54 000	2	170 000	3
Toll-free numbers	5	1	1 011	4
Shared payment service numbers	0	0	22 000	2
Premium rate service numbers	0	0	14 001	3
Numbers for other types of services	0	0	108 800	3
Short codes	7	3	9	6
Identification codes	1	1	5	4

7.1.5. Information about the measures to prevent numbering fraud

As in other countries, more active use of various fraudulent schemes using numbering resources was also observed in Latvia in 2017. The detection of such schemes is very complicated because the process of fraud is dynamic – it is terminated soon after its initiation. To limit fraudulent activities, foreign operators (due to suspicion only and without specific evidence) may prohibit calls in their electronic communications networks to Latvian numbers preventing consumers from making calls while being abroad.

In 2017, the Regulator received an application from a foreign organisation stating that numbers in one numbering range allocated to one Latvian electronic communications company were used for fraudulent purposes. Although the Regulator evaluated the submitted information in detail, there is currently no judicial evidence that these numbers were used for illegal purposes. Permanent and stable international cooperation is necessary for fraud to be detected and proved; the cooperation is currently incomplete.

7.1.6. Interconnection agreements and access to the infrastructure of electronic communications networks

Relationships of electronic communications companies are legally determined by several types of agreements. The objective of interconnection agreements is to ensure compatibility between operators' networks so that end users of one electronic communications network may communicate with end users of another electronic communications network. Taking into account the significance of this agreement, within ten working days after the conclusion or amendment of an interconnection agreement one copy of the agreement must be submitted to the Regulator. Thus, in various problem situations, it is possible for the Regulator to keep track of whether a merchant carries out its activities in accordance with the requirements of the law.

In 2017, 10 new interconnection agreements were registered with the Regulator, and 130 interconnection agreements were registered at the end of the year.

Access to the electronic communications network infrastructure is a service provided to another company with specific conditions for accessing the network infrastructure (network, connected devices, data flow) required for the provision of electronic communications services. The Regulator imposes relevant access obligations on the company with significant market power.

Terminating segments of leased lines are used to provide a local loop of another electronic communications company. It is a segment from an end user's connection point to the nearest electronic communication network's switching or routing equipment.

7.1.7. Supervision of companies with significant market power

In accordance with the regulations²¹ approved by the Regulator, an electronic communications company with significant market power must publish interconnection and leased line reference offers. On 10 July 2017, Lattelecom Ltd published the "Reference Offer for the Related Equipment Sharing Services", fourth edition.

Contrary to interconnections, all types of access and shared use of infrastructure are not popular among companies. Shared infrastructure use means that electronic communications merchants can provide services to end users, in whole or in part, using the electronic communications

²¹ Regulations on access reference offer, Regulations on interconnection reference offer, and Regulations on leased line reference offer.

network of another merchant. If several electronic communications merchants provide services using their electronic network, this is called infrastructure competition. The infrastructure competition characteristic for Latvia continued in 2017.

The regulations on access to related equipment and services impose an obligation on electronic communications companies to cooperate in the use of cable ducts, while the shared use of other infrastructure is stipulated by the Law on the High-Speed Electronic Communications Network²². The Law on the High-Speed Electronic Communications Network in the part regarding the examination of disputes entered into force after the relevant amendments to the Civil Procedure Law²³. As a result, a separate law imposes an obligation on almost all network (gas, electricity, district heating etc.) owners to lease their infrastructure to electronic communications companies for installing high-speed electronic communications networks including an obligation for mobile operators to share their masts and towers for the installation of other operators' equipment. The Regulator's functions for dispute settlement have consequently been expanded and will concern not only disputes between electronic communications companies, but also between electronic communications companies and operators (owners) of other networks. In 2017, the Regulator did not receive any application for such dispute settlement.

In the electronic communications sector, the Regulator has imposed obligations on merchants with significant power in the call termination markets (fixed network and mobile network) and access to fixed network markets (local access, centralized access, high quality access).

The Regulator has reanalysed call termination markets and has identified nine new merchants with significant market power (eight in the fixed network and one in the mobile network), preventing them from setting disproportionately high termination rates. The Regulator has also analysed the market for retail access to the public fixed telephone network and found that, due to competition between fixed and mobile voice telephony service providers, there are no longer any companies with significant market power and has therefore removed all obligations in the market.

7.2. TARIFFS, TARIFF CALCULATION METHODOLOGIES, TARIFF CHANGES

The "roam like at home" principle has introduced significant changes in the habits of every mobile user

In April 2017, the Regulator adopted a decision on the reduction of the upper limit of call termination rates from 1 January 2018: in the mobile network by 15.5% and in the fixed network by 7.7%. Lower call termination rates create prerequisites for electronic communications merchants to provide end-users with the opportunity to call any network in Latvia more cheaply, promote the development of competition and reduce barriers to entry of new merchants into the electronic communications market.

As of June 15, 2017, mobile communications services in the European Economic Area are provided according to the "roam like at home" principle. The benefits of "roam like at home" have led to changes in the usage patterns of Latvian mobile communications customers - the amount of data used while roaming has tripled, the number of conversations has doubled, and the number of SMS messages has increased by 60%.

²² It entered into force on April 19, 2017, thus implementing Directive 2014/61/EU of the European Parliament and of the Council of 15 May 2014 on measures to reduce the cost of deployment of high-speed electronic communications networks.

²³ By the Regulator's decision No. 1/18 "Regulations on payments for settlement of disputes" of 8 June 2017.

On June 15, 2017, the Regulator approved the "Regulations for Informing End Users about High Tariff Calls", effective from 1 January 2018. The regulations stipulate that if the tariff exceeds 0.0298 EUR per call minute to another network, the operator shall provide the end user with a voice announcement on the applicable tariff, unless the operator applies the same tariff for all calls. Such a mechanism is intended to protect the interests of end-users by raising awareness of tariff calls to the network of other operators that the operator applies to its end-user.

7.3. PROTECTION OF SERVICE USERS

Thanks to competitive conditions and technological developments, the quality of services continues to grow

The range of service quality requirements that are binding for a merchant and which determines the obligations of the merchant in relation to the service quality provision and the availability of information on the quality of services are included in the following legislative acts:

- Regulations on Quality Requirements for Electronic Communications Services, Submission and Publishing of Quality Reports²⁴ (hereinafter - Regulations on the Service Quality Requirements);
- Regulations on general authorizations in the electronic communications sector²⁵;
- Regulation on access to the open internet²⁶.

In accordance with the Regulations on the Service Quality Requirements, The Regulator performs measurements of quality of services, if the following conditions are met:

- voice telephony service if the operator has at least 20,000 end-users²⁷;
- mobile Internet service if the operator has at least 20,000 end-users²⁸;
- if an end-user complaint has been submitted to the Regulator about the quality of services and it requires the performance of measurements.

7.3.1. The quality of the voice telephony service

In 2017, the Regulator has assessed the quality of the voice telephony service for Lattelecom Ltd in the fixed electronic communications network and BITE Latvija Ltd, Latvijas Mobilais telefons Ltd (hereinafter - LMT) and TELE2 Ltd in the mobile electronic communications networks, as well

²⁴ Decision of the Regulator No 1/21 "Regulations on Quality Requirements of Electronic Communications Services, Submission and Publishing of Quality Reports" of 3 December 2015 which was in force until 31 December 2017. As of January 2018, the Regulator's decision No 1/31 "Regulations on Quality Requirements of Electronic Communications Services, Submission and Publishing of Quality Reports" of 30 November 2017 is in force.

²⁵ Decision of the Regulator No 1/8 "Regulations on general authorizations in the electronic communications sector" of 4 June 2015.

²⁶ Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union.

²⁷ At the end of the first half of the previous calendar year.

²⁸ At the end of the first half of the previous calendar year.

as separate interconnection combinations. The quality of the voice telephony service is characterized by the unsuccessful call ratio, call set-up time and the speech transmission quality.

When evaluating the results of measurements in 2017 in both fixed and mobile electronic communications network, we observe that the ratio of unsuccessful calls does not exceed the limit of 0.01%, which means that in the mobile network, in the area of good reception, the connection will be successful and only in some cases an unsuccessful call attempt is possible.

The average call set-up time indicators for the voice telephony service range from four to six seconds in mobile electronic communications networks, while the call set-up time value in the fixed electronic communications network of Lattelecom Ltd ranges from one to two seconds, which provides users with a fast enough call set-up in both fixed and mobile electronic communications networks.

When evaluating the speech transmission quality of the voice telephony service, it can be observed that in the fixed electronic communications network it is slightly above 4 points, while the quality of speech transmission of the mobile voice telephony service is about 3.5 points, which generally characterizes good audibility and perception of the conversation in both mobile and fixed electronic communications network.

Speech transmission quality was evaluated by using the PESQ²⁹ algorithm; the quality is rated on a 5-point scale in the following table.

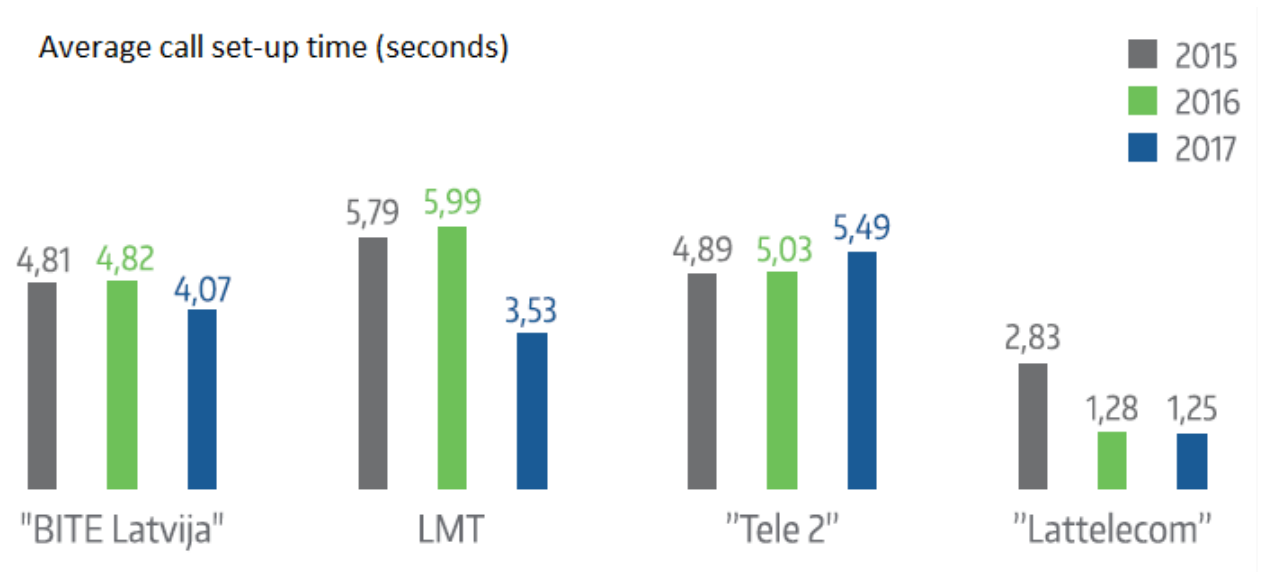
The rating scale of the speech transmission quality

Rating in points	5	4	3	2	1
Quality assessment	Excellent	Good	Satisfactory	Bad	Poor

Analysing the results of the measurements for the voice telephony service in 2017, quality indicators with transmission technologies and technical solutions currently used in electronic communications networks can be considered as stable and at a very good level.

²⁹ PESQ – *Perceptual Evaluation of Speech Quality*.

Comparison of the results of the average call set-up time measurements over the years (in 2015, 2016 and 2017)



7.3.2. The quality of the mobile Internet service

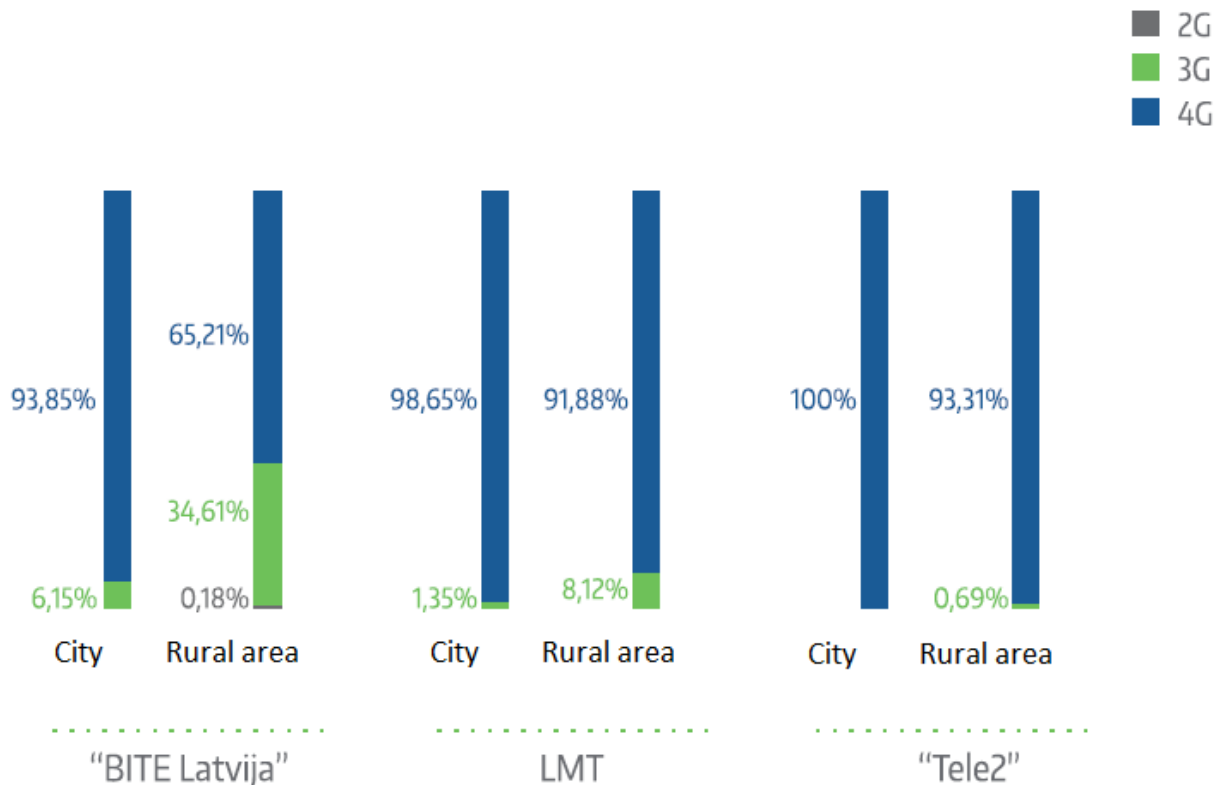
In 2017, the Regulator carried out measurements of the quality of Internet service in the mobile electronic communications networks of BITE Latvija Ltd, LMT and Tele2 Ltd. In 2017, the Regulator carried out both random and standard measurements of the Internet service quality in the mobile electronic communications networks of BITE Latvija Ltd, LMT and Tele2 Ltd in different locations of Latvia. The operators provide Internet service in 2G, 3G and 4G network.

The measurements were performed at more than 1100 freely selected geographical locations as uniformly as possible across the whole territory of Latvia including more than 200 locations in Riga. According to the population size in the largest 20 cities of Latvia, the number of measurements was selected in proportion to the population.

In 2017, when measuring the Internet service in the mobile electronic communications network coverage area and analysing the measurements depending on the location of the measurement - city³⁰ or rural area - it can be observed that the 4G coverage in LMT and Tele2 Ltd mobile electronic communications network is equally distributed in both urban and rural areas. Meanwhile, BITE Latvija Ltd mobile electronic communications network has a significantly higher 4G coverage in cities compared to rural areas where the 4G technology was available in about two thirds of the measurements.

³⁰ Nine republican and 67 municipal towns in accordance with the territorial division of Latvia by the Ministry of Environmental Protection and Regional Development.

Percentage distribution of download speed results in 2017 by data transmission technologies in Latvia

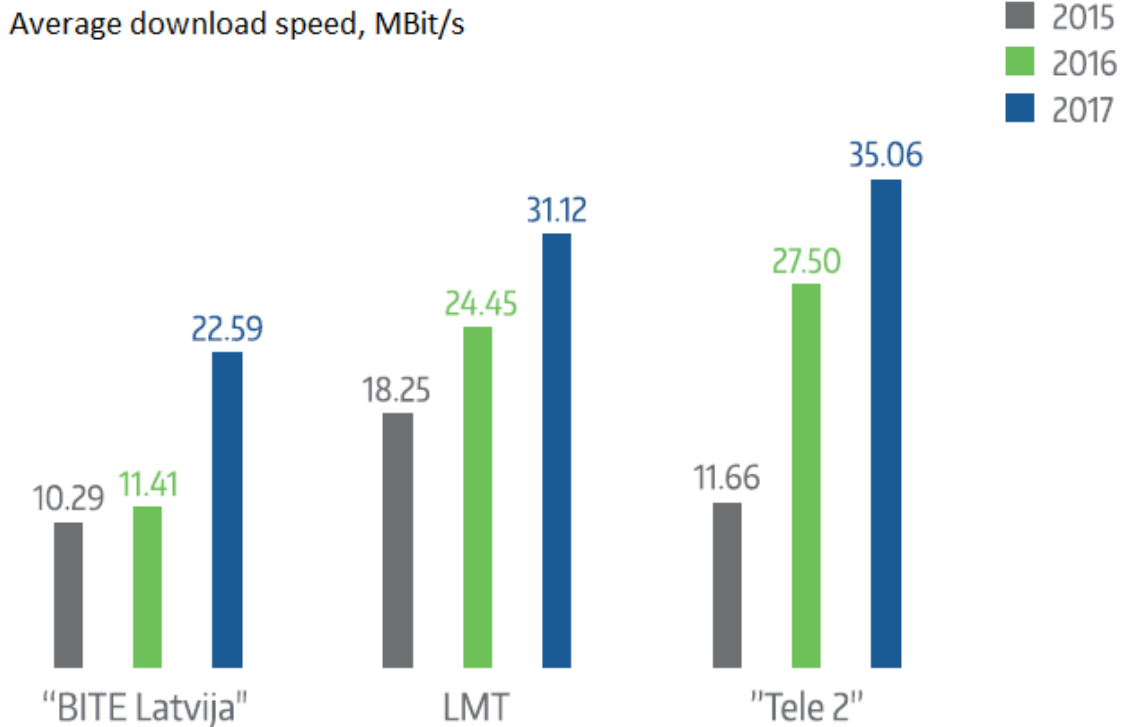


The results of the 2017 measurements show a reduction in the number of locations where only 2G technology coverage is available, i.e., in just one of all 2017 measurement locations, a stable data transmission signal was only available in 2G technology. However, there are still places in 2017 where mobile electronic communications network coverage is not available, although, like in 2016, no location was identified where at least one operator's mobile electronic communications network coverage would not be available.

The results of the 2017 measurements generally show the tendency of the previous years for the average values of download speeds to increase in separate places and moments with the connection speed approaching 100 megabits per second. At the same time, where the 4G data transmission technology is unstable or variable, or due to user-generated load, download speed values may be very low or even inadequate for the use of the service.

Evaluating the measurements made in 2017 and comparing them with the results of previous years, it can be concluded that the quality of mobile Internet continues to improve and mobile operators provide coverage of 4G network in the wider territory of Latvia, especially in the most populated places of Latvia. In 2017, the proportion of measurement locations with average download speeds above 30 megabits per second has increased significantly. It has been found that in the LMT and Tele2 Ltd electronic communications networks the download speeds exceeded 30 megabits per second in about half of the measurements. Additionally, a detailed evaluation of the download speed values for different cross-sections, including the most frequently available download values, shows that mobile operators in most cases provide download speeds above 10 megabits per second, thus providing a good quality Internet service. Analyzing the other quality indicators of the Internet service, it can be concluded that in most cases they are within the boundaries that allow the consumers to use different Internet services without hindrance.

Comparison of average download speed measurements by year in Latvia



Overall, for all three operators, the results of the 2017 measurements point to a strong trend in mobile Internet development, strengthening 4G technology's leading position in providing Internet access in the mobile electronic communications network. At the same time, it should be emphasized that the stability of mobile Internet quality indicators lags far behind the stability of equivalent connection speeds in a fixed electronic communications network, where the quality of Internet services is less affected by changes in traffic with increased Internet user activity.

7.3.3. Supervision of the open Internet

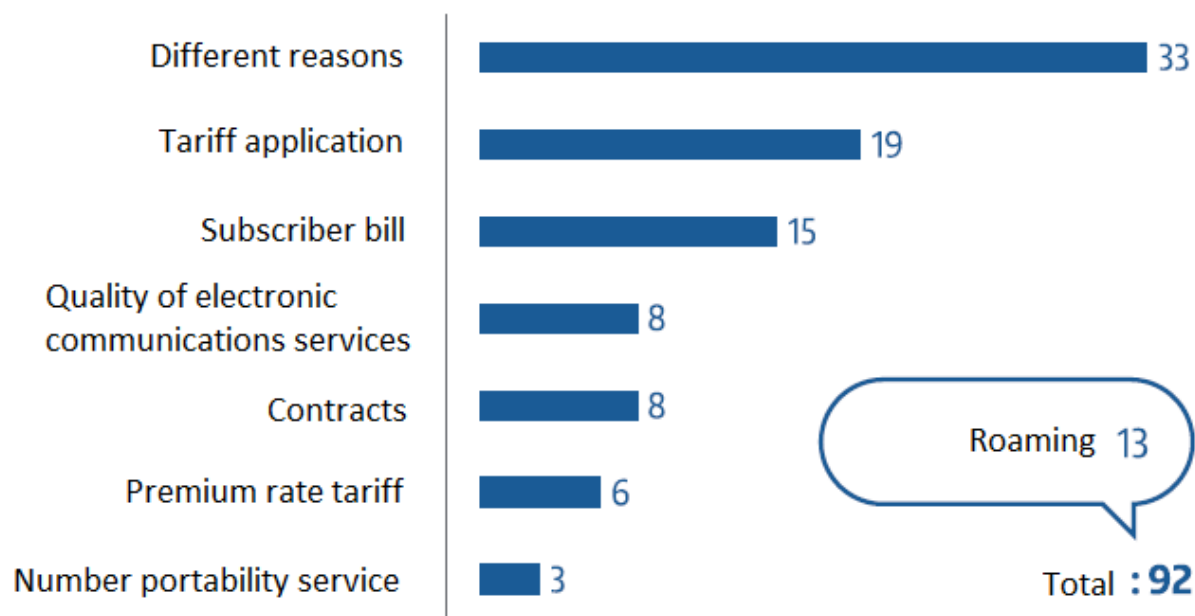
In 2017, when carrying out the monitoring of open Internet requirements, which included evaluation and analysis of user complaints, regular measurements of Internet service quality, as well as detailed analysis of the information published on the websites of merchants and provided in the Regulator's survey, the Regulator has not established violations of the Open Internet Regulation. Open Internet requirements include the principles to be followed by Internet service providers to ensure that all traffic on the Internet is handled equally, regardless of the content of the information to be transmitted, the sender or the recipient, and that all information related to the provision of the Internet service is accessible and understandable to the user. The Regulator concludes that Latvian Internet Service Providers in most cases provide the user with clear and comprehensible information about the service provided, moreover the minimum quality requirements set by the Regulator impose on the merchants the obligation to ensure the quality level specified in the electronic communications service contract.

In addition, the Regulator concludes that, under the conditions of competition of existing Latvian Internet service providers, companies are motivated to provide a high-quality Internet service which does not restrict a user's freedom of choice. As evidenced by quality measurements carried out by the Regulator, which still show the development of mobile electronic communications networks and performance maintenance at the level appropriate for modern technologies.

7.3.4. User complaints

In performing its statutory functions, the Regulator annually collects information on complaints submitted to the Regulator, including in the electronic communications sector. In 2017, the Regulator provided answers to 92 complaints about electronic communications services and had 119 telephone consultations.

Comparison of the number of complaints received by the Regulator by reasons of complaints

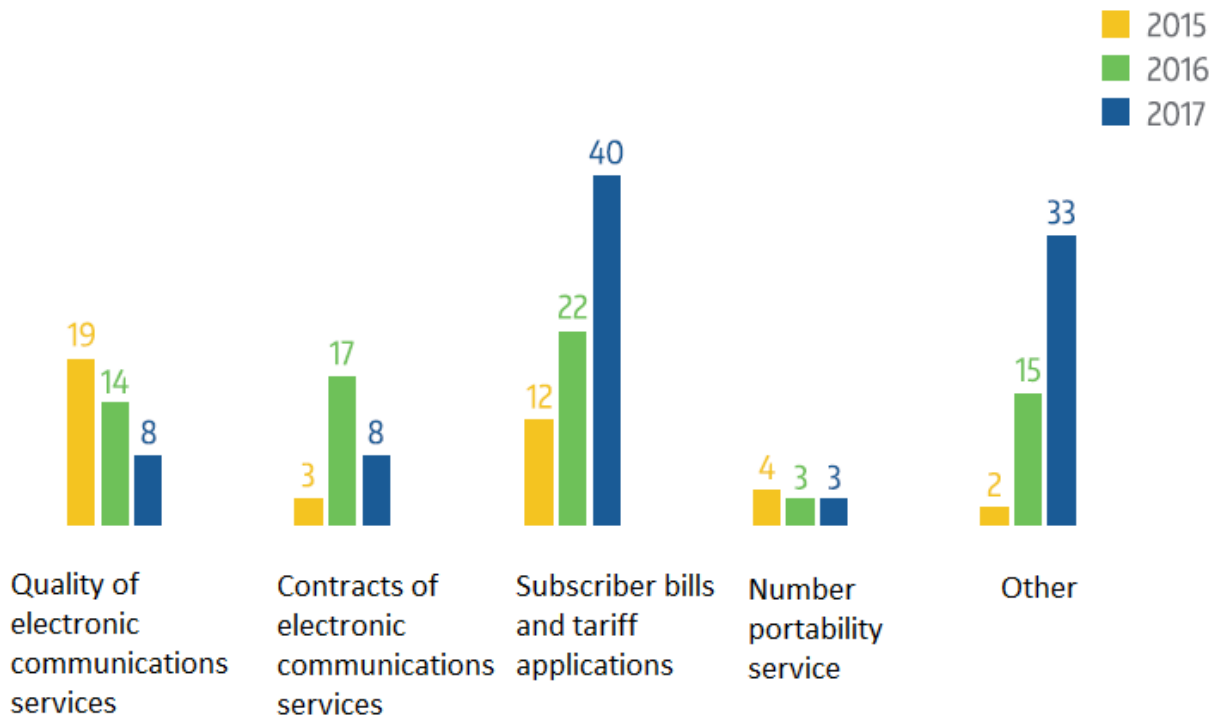


In 2017, the Regulator mainly received complaints about invoices issued and application of tariffs, including the invoice fees for calls to electronic communications networks of other operators at a much higher tariff than within own operator's electronic communications network.

During 2017, the Regulator received a total of 19 complaints about a tariff increase from users and provided 11 telephone consultations, of which 19 were complaints about service providers providing services in mobile electronic communications network and 10 about service providers providing fixed electronic communications services. The Regulator found that in complaints about subscriber invoices, user complaints are about, in their opinion, incorrect accounting of the used service, unused services and suspicion of involvement of third parties in their use.

In 2017, the Regulator received and evaluated 13 complaints and provided 20 consultations on issues affecting customers while using roaming services, such as tariff application, and the implementation and principles of the Roaming Regulation. User complaints were related to the behaviour of service providers in roaming when data transmission and calls were made within the European Economic Area or calls to foreign operator numbers.

Comparison of the number of complaints received by the Regulator according to reasons for the complaints by years



In general, the increase in the total number of complaints in 2017 was related to the raised tariffs of the services offered by the providers of voice telephony services in the mobile electronic communications network. However, it has not been observed that the increase in tariffs has contributed to drastic changes the way consumers use their services. A comparatively small number of complaints about the quality of service can be explained by the service providers' quick enough action in case of user problems, the availability of services and the freedom of choice for most users in selecting their service provider.

There have been no unjustified complaints in the electronic communications sector. All of them had a specific justification and reason why the end-users contacted the Regulator. Also, no violations were found among electronic communications merchants in connection with the provided electronic communications services. Every situation was assessed separately by the Regulator, and electronic communications merchants were most often cooperative with the end-users and solved the problem situations quickly. In 2017, the Regulator received five complaints with questions that are not within the competence of the Regulator, which were forwarded for examination by affiliation.

7.4. THE UNIVERSAL SERVICE

The universal service concept in the electronic communications sector is historically oldest and therefore the most developed one

The universal service is the minimum volume of electronic communications services that is available at a specific level of quality and for an affordable price to all existing and potential users irrespective of their geographical location.

Since 2003 the Regulator has obliged Lattelecom Ltd to fulfil this function. Taking into account the dynamic development of the electronic communications sector, from 2017 the Regulator significantly reduced the amount of the universal service provided. In 2017, the operator has only an obligation to provide disabled persons with specific rate discounts for electronic communications services.

7.5. SECTOR DEVELOPMENT TRENDS AND CHALLENGES IN 2018

**Andris Virtmanis,
Director of Electronic Communications
and Post Department**

For all EU Member States regulators, including the Public Utilities Commission, the year 2017 marked a new obligation to monitor the implementation of the "roam like at home" regulation on mobile electronic communications networks. The new regulation enabled users to travel to the European Union and European Economic Area countries and pay for calls, text messages and data at the same rates as domestic mobile operators apply to domestic tariffs. At the same time, operators remained obliged to pay wholesale charges to operators in other countries. Although wholesale tariffs have been significantly reduced, operators have maintained high additional costs for data transmission services. The gradual reduction of wholesale roaming charges for the provision of data services will not only make larger data volume available to end-users at domestic prices, but also contribute to a further reduction in domestic service tariffs.

The year 2017 has been the first year in the European Union when sector regulators, including the Regulator, provided the so-called monitoring of network neutrality (open Internet) requirements in public electronic communications services networks. Requirements require operators to provide equal and non-discriminatory traffic processing.

It is also worth mentioning the European Commission's ambitious goal of creating the prerequisites for the so-called Gigabit Society to be achieved by the Member States by 2025. One of the cornerstones of this goal is the development of a new generation of mobile communications technologies (5G). In this respect, at the end of 2017, the Regulator auctioned the frequency usage rights in the frequency band 3.4 - 3.7 GHz, which will be used for the introduction of 5G services in Latvia.

Also, in mid-2017, the Regulator decided that from 1 January 2018 electronic communications merchants will be obliged to inform their end-users about premium-rate calls to networks of other merchants. Such adopted changes to the "Regulations on Informing End-Users about Premium

Rate Calls" prevent excessive billing for users calling to another network at a premium rate (these are often calls to medical treatment centres to apply for a visit to a specialist).

In 2018, however, a major challenge for the Regulator will be to review access obligations for a dominant fixed network operator by strengthening infrastructure competition, which will, in the long term, encourage the availability of high-quality Internet services for end-users.

The Regulator will also continue monitoring the fulfilment of the requirements of the international roaming regulation and network neutrality. At the same time, it is expected that the Directive establishing the European Electronic Communications Code will come into force, whose proposals for future changes to the regulatory framework of the sector will have to be implemented in a harmonized manner in all EU Member States.

8. POST

Significant changes in the procedure of registration of postal operators, the need to improve the quality of services

8.1. MARKET SURVEILLANCE

More stringent principles for the registration of postal operators have been introduced

In the postal sector, the Regulator regulates traditional postal services, express mail services, courier services and subscription press delivery services.

At the end of 2017, 63 postal operators provided postal services. In 2017, 11 postal operators were registered, while 17 merchants were excluded from the mail merchant register. The main reason for excluding postal operators from the register was the failure to provide postal services in the last 12 months.

In 2017, the Regulator has reviewed 15 administrative violation cases for non-compliance with the general authorisation conditions. The right to provide postal services was cancelled for one company for three years.

The postal services market is growing faster in the postal parcel segment. The main reason for this is the development of e-commerce and the related delivery of parcels. Considering the trends of the previous years and the growth of electronic services, the volumes of letters continue to decrease.

8.2. PROTECTION OF SERVICE USERS

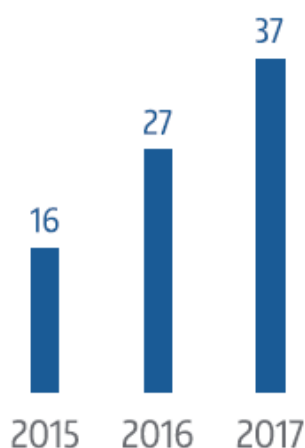
The number of postal service users' complaints about express and courier services continues to grow

In performing its statutory functions³¹, the Regulator collects information on complaints submitted to the Regulator annually, including in the postal sector. In 2017, the Regulator received and provided written responses to 37 user complaints about services and related issues. The increase in the number of complaints is mainly due to the supply of goods purchased through e-commerce. Most of all complaints received in 2017 were complaints by individuals - 34 or 92% of all complaints received.

The most important issue about which complaints were received from users in the postal sector in 2017 is the delivery of postal items, in particular the delivery time of cross-border parcels and small parcels by express mail service providers.

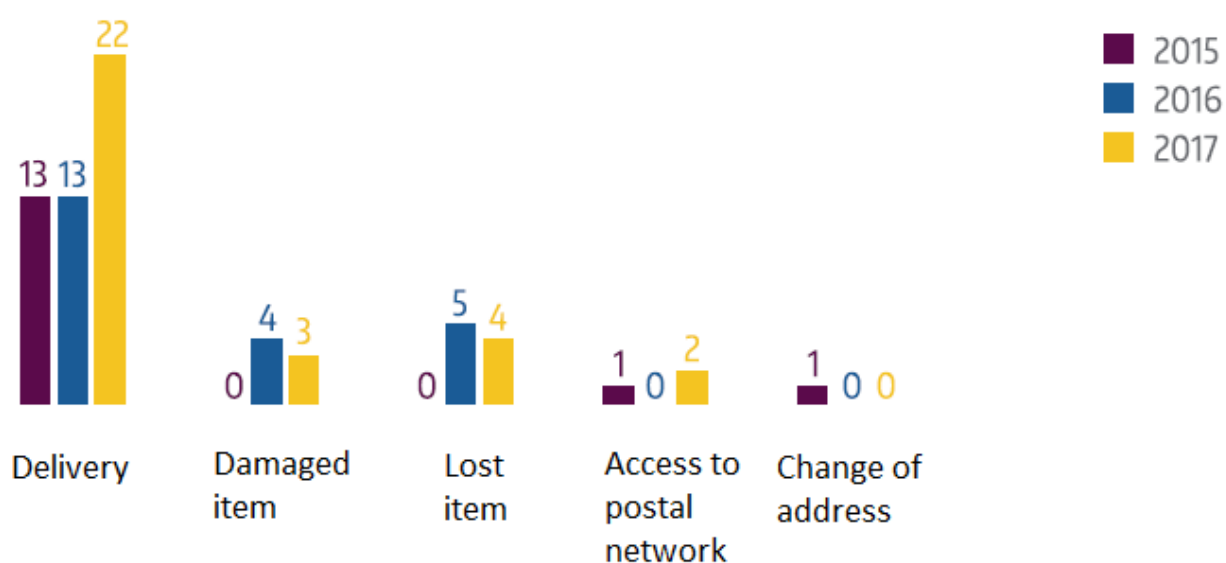
³¹ Law on Regulators of Public Utilities

The dynamics of number of complaints between 2015 and 2017



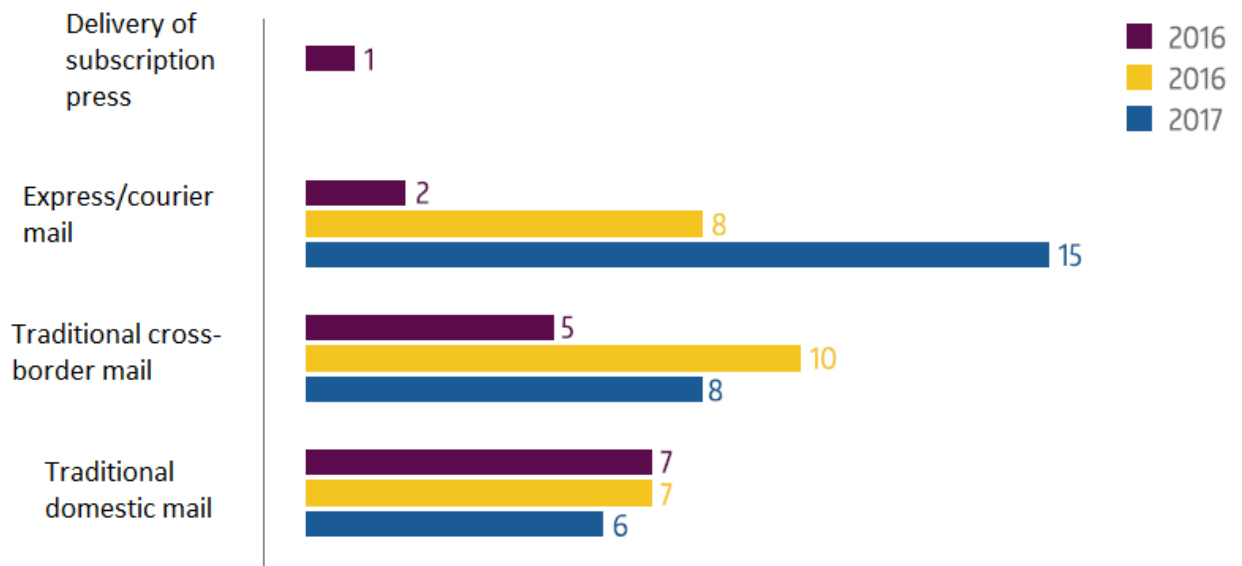
The number of complaints has increased over the last three years. Compared to 2016, the number of complaints has increased by 10 or 37%.

Comparison of the number of complaints received by the Regulator according to reasons for complaints by year



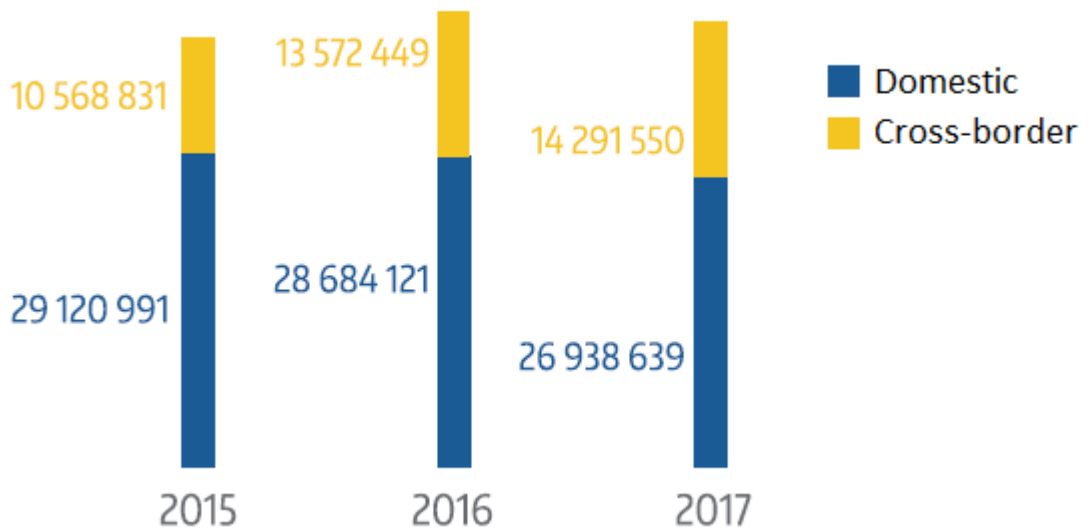
Compared to previous years, the number of received complaints regarding the delivery of postal items has increased, as did the number of complaints regarding access to the JSC Latvijas Pasts postal network. The Regulator points out that at the moment there is an active work on the draft "Amendments to the Postal Law", which will provide for the possibility for postal operators to use the postal network owned by another postal operator. In the Regulator's opinion, such regulation could also reduce the number of received complaints about access to the postal network. If a postal operator refuses another postal operator to use its postal network owned, such a refusal must be justified.

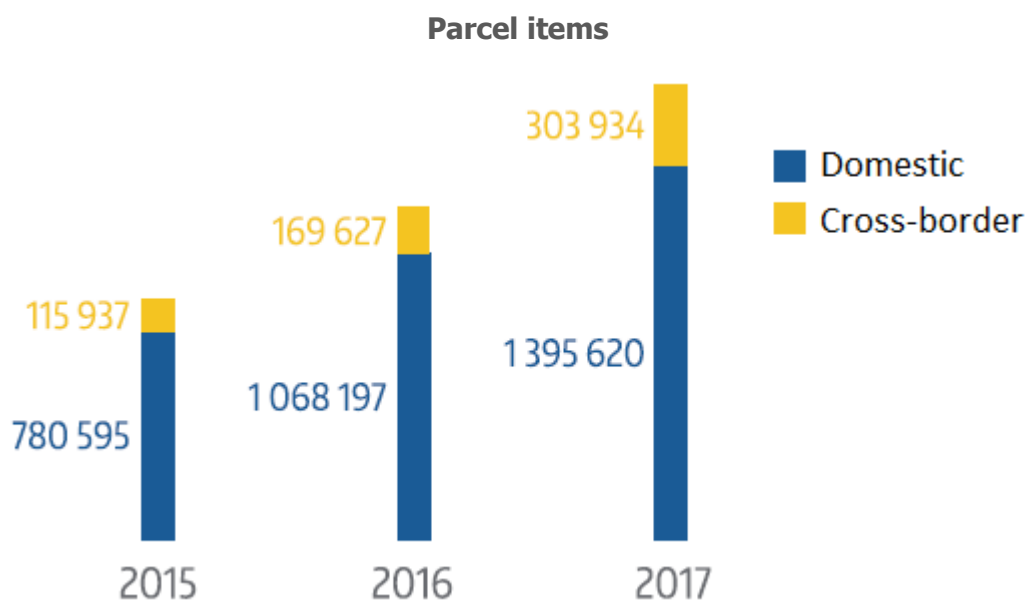
Comparison of the number of complaints received by the Regulator according to postal service by year



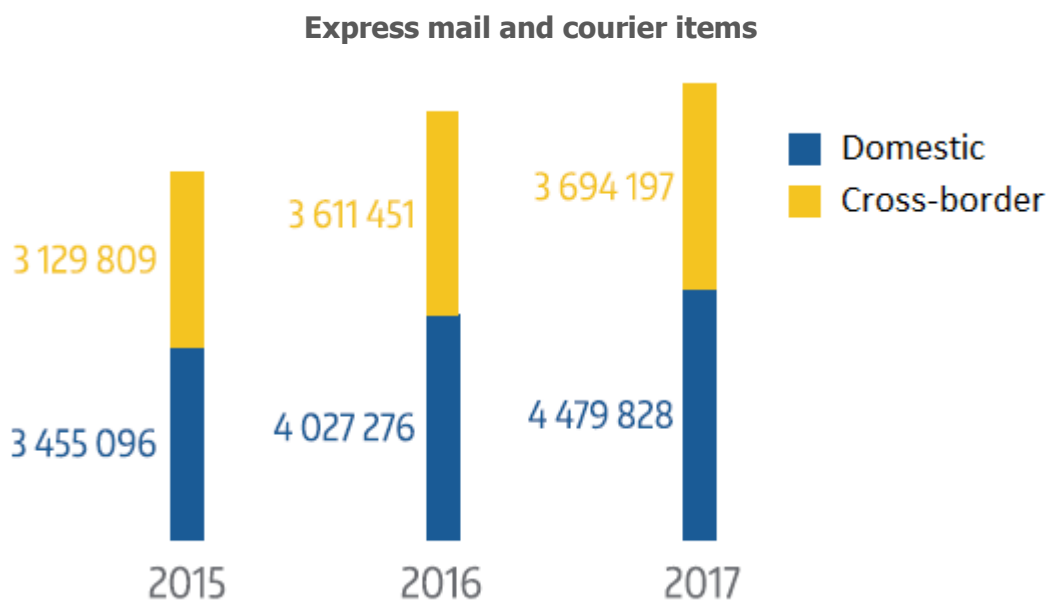
When assessing the received complaints according to the service type, the Regulator concluded that over the last three years there is a tendency for the number of complaints about traditional postal services to decrease, but at the same time the number of complaints about express and courier services has increased.

Letter-post items





It can be concluded that in recent years the delivery of domestic parcels has grown due to the intensive use of the e-commerce service.



The development of the digital economy will open up even more opportunities to buy goods and services over the Internet. In order to better exploit the potential of e-commerce, it is important to build consumer confidence in cross-border online sales. The European Commission, in the framework of the Digital Single Market Strategy, presented a plan to support e-commerce, which aims to prevent geo-blocking, reduce cross-border mail delivery prices and increase its efficiency by enhancing customer confidence.

On 25 May 2016, the European Commission announced a proposal for a regulation on cross-border parcel delivery services. The aim of the regulation is to increase the efficiency of markets and the transparency of tariffs.

The European Commission (EC) has set up the European Regulators Group for Postal Services (ERGP), whose role is to advise and support the Commission in consolidating the internal market for postal services, improving the internal market and ensuring consistent application of the legal framework for postal services in all Member States and also advise the EC and support it in all matters related to postal services that are within its competence.

The mid-term strategy of ERGP activities was developed for 2017 - 2019, which aims to promote the provision of a sustainable universal postal service, to promote the competitiveness of the European Union single postal market and to ensure the protection of users of services, including the supervision of the quality of postal services. Following the adoption of the Postal Parcel Regulation, the Regulator will oversee the cross-border market and check the availability of prices and the extent to which they are cost-based. As a result, users will have high-quality cross-border parcel delivery at an affordable price.

8.3. THE UNIVERSAL SERVICE

Quality of universal postal service in Latvia - unchanged, meets the specified requirements

8.3.1 Service user protection

In the postal sector, the quality of the universal postal services remains at the current level

The universal postal service (UPS) is a minimum set of certain quality postal services available to all users throughout the territory of the Republic of Latvia, regardless of their geographical location. The universal postal service provider is obliged to ensure the collection, sorting, transportation and delivery of domestic and cross-border letter-post items (including registered and insured items), the weight of which do not exceed two kilograms; collection, sorting, transport and delivery of domestic and cross-border parcels (including insured parcels) up to 10 kilograms in weight and delivery of cross-border parcels (including insured parcels) received from other European Union countries up to 20 kilograms.

The Regulator has determined that the state JSC "Latvijas Pasts" shall be the universal postal service provider until 31 December 2019. The State JSC "Latvijas Pasts" is obliged to coordinate with the Regulator in writing the changes in the location of points for provision of postal services and letter boxes. In 2017, the Regulator agreed to 34 changes in the location of points for provision of postal services and 27 letter boxes. In 2017, no point for provision of postal services of the state-owned JSC "Latvijas Pasts" was closed.

In 2017, the Regulator inspected the quality requirements of the universal postal service in 23 locations where JSC "Latvijas Pasts" provides postal services. The information available at the locations of postal service provision about the range and tariffs of the universal postal service, as well as information on business hours was examined during the inspections. No violations were found during the Regulator's inspections. In 2017, there were 618 post offices of JSC Latvijas Pasts and 1069 letter boxes.

Regulator has imposed an obligation on JSC "Latvijas Pasts" to comply with the quality requirements of the universal postal service for the delivery times letter correspondence items domestically. On the next business day, at least 90% of all Class A (priority mail - mail being forwarded as a priority) ordinary letter-post items must be delivered to the addressees. On the third business day, at least 98% of all Class B (economic mail - mail, which is forwarded in standard (regular) order) ordinary letter-post items must be delivered to the addressees.

In 2017, JSC "Latvijas Pasts" delivered 99.6% of all Class B ordinary letter-post items and 94.4% of all domestic Class A ordinary letter-post items to the addressees on the third business day after the letters were handed over at the postal network access points. The time of ordinary letter transmission corresponds to the quality requirements set by the Regulator.

8.3.2 Tariffs, tariff calculation methodology, tariff changes

UPS tariffs - stable and balanced

The Regulator is competent to approve the tariffs of the universal postal service provider JSC Latvijas Pasts only, ascertaining the tariff compliance with the costs, however, effective competition in the postal services market provides the opportunity to receive both traditional and courier services at affordable prices for end users. As a result of the optimization of the postal network and the cost of providing the service, the tariffs of the universal postal service of JSC "Latvijas Pasts" remained unchanged in 2017.

8.4. SECTOR DEVELOPMENT TRENDS AND CHALLENGES IN 2018

**Bruno Frīdenbergs-Ansbergs,
Director of the Postal Department**

In 2017, significant changes were introduced in the registration procedure of postal merchants. The Regulator has concluded that the new procedure successfully operates both in the process of registering new merchants and suspending the activities of existing postal operators and removing them from the mail merchants' list.

In June 2017, draft "Amendments to the Postal Law" were announced, which aimed to improve the basic concepts and legal framework of postal services by providing more efficient postal delivery solutions. In 2017, the Regulator actively participated in the drafting of amendments to the Postal Law by expressing objections and proposals.

The Regulator's participation in the Universal Postal Union's conference on the future aspects of postal services regulation, which has repeatedly demonstrated the importance and necessity of fundamental and radical reforms in the postal sector in the coming years due to the changing global postal service trends.

In 2018, the Regulator will continue to actively participate in the drafting of the "Amendments to the Postal Law". The Regulator should also prepare for the designation of the universal postal service provider after 2019. An important step will be the introduction of the requirements of the European Union regulation on cross-border parcel delivery services.

9. THERMAL ENERGY

The opening of the natural gas market is changing the current procedure for applying and setting heat tariffs

9.1. AUTHORIZATION AND SUPERVISION OF MERCHANTS

Thermal energy supply in the heat supply system is secure

In the heat supply sector, thermal energy generation, transmission, distribution, and sales are the regulated services. The companies engaged in the production of thermal energy, including the production of thermal energy in a cogeneration unit, must register in the Register of Thermal Energy Producers maintained by the Regulator if the total installed heat capacity exceeds 1 MW and the amount of heat supplied to the users exceeds 5,000 MW/h. For those companies that provide heat transmission and distribution service, the Regulator issues a license if the total amount of heat transported and distributed exceeds 5000 MWh per year. In turn, merchants which provide trade services to users shall register in the Register of Thermal Energy Traders maintained by the Regulator if the total amount of heat sales exceeds 5000 MWh per year.

At the end of 2017, 179 merchants were registered in the Register of Thermal Energy Producers, which is 12% less than in 2016. In the reporting year, five merchants were registered, but 29 companies were excluded from the register. The main reason for the exclusion of merchants was the failure to start the planned heat production in cogeneration plants.

Producers' Register



At the end of 2017, 79 merchants were registered in the Register of Thermal Energy Traders, which is one merchant less compared to 2016. In the reporting year, one merchant was excluded from the register because it did not provide heat sales service.

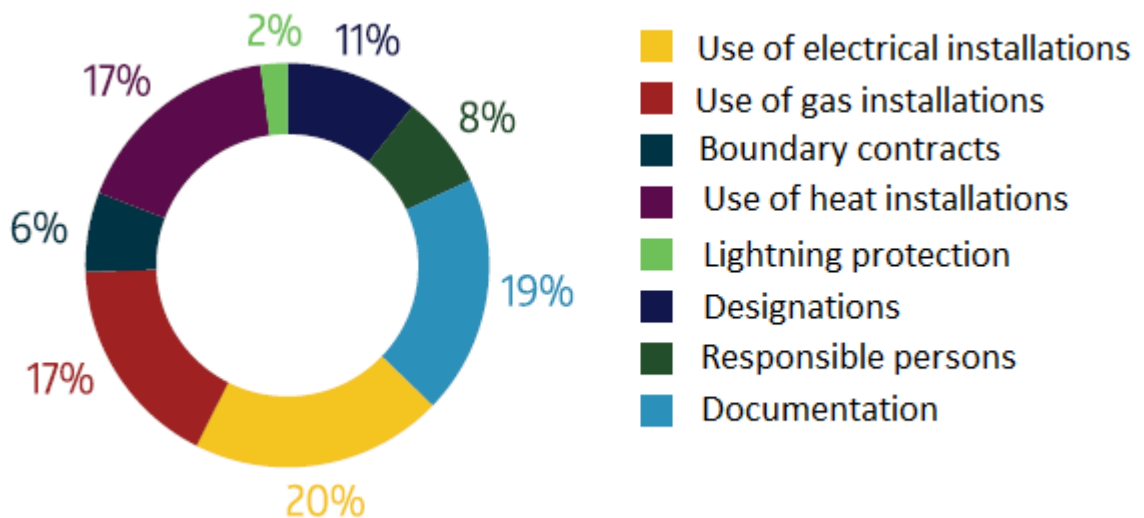
Traders' Register



At the end of 2017, licenses for heat transmission and distribution were issued to 73 merchants, which is a reduction by one merchant at the end of 2016.

In 2017, the Regulator carried out compliance inspections of 35 merchant facilities, during which 71 objects were inspected. During the inspections, 94 non-compliances were detected for 27 merchants (77% of total inspections). 55 non-compliances were resolved in 2017, the remaining ones were corrected in 2018 or will be eliminated during 2018 according to the Regulator's instructions.

Groups of found non-compliances



The highest number of non-compliances (19 cases) was found in the operation of electrical installations. In most cases (11 cases) failure to observe the periodicity of preventive measurements of electrical installations was found, in other cases the non-compliance with the earthing of equipment, the state of general electrical equipment and premises. The second largest number of non-compliances concerned the shortcomings in the documentation (18 cases). Non-compliances were related to energy efficiency logs, equipment maintenance contracts, and other technical documentation.

The third largest number of non-compliances was found regarding the operation of gas equipment. In ten cases, the equalisation of the gas pipeline potentials had not been installed or was incompletely installed, in four cases non-compliance with the operation of the gas leakage detector was found, but in one case there was no grounded gas input in the building and non-compliances were identified regarding the automatic disconnection of gas supply devices.

A large number of non-compliances was found in the operation of heat installations. 16 non-compliances were identified, most of which (10 cases) were related to the identification or observance of energy efficiency indicators. In one case, the overflow of the boiler's heat carrier was improperly installed, in two cases the merchant could not show the temperature curve of the heat source, and in two cases the merchants did not carry out a routine inspection of the boiler. Non-compliances with respect to energy metering boundary contracts (two cases) were also recorded. In three cases, there was a lack of designation of the persons responsible for the operation, or no valid certificates of proficiency in the operation of the equipment in question were presented to the responsible persons, and in one case a non-compliance with the lightning protection of the sites was found. Several tests recorded a lack of informative signs in the facilities.

Most of the shortcomings in the operation of the facilities found during inspections do not directly affect the reliability of the heat supply, but may, in appropriate circumstances, cause significant disruption of production processes and damage to equipment. The most significant deficiencies were eliminated within the deadlines specified by the Regulator.

9.2. TARIFFS, TARIFF CALCULATION METHODOLOGIES, TARIFF CHANGES

A new procedure for setting and applying tariffs after the opening of the natural gas market

9.2.1. Tariff calculation methodologies

After the opening of the natural gas market, in order for the heat supply merchants to adapt to the new situation, when each merchant has an individually determined price of purchased natural gas, the Regulator made amendments to the Methodology of calculation of tariffs for thermal energy supply services and the Methodology for calculation of cogeneration tariffs (hereinafter - methodologies). Amendments to the methodologies allow merchants to obtain from the Regulator the procedure for applying heat tariffs to tariffs approved in the form of a table at different natural gas prices, or permission to set their own tariffs if the price of fuel, the price of purchased thermal energy or the price of electricity sold has changed.

In the amended methodologies, the Regulator has established a detailed tariff application procedure for the transition from the unit of measurement EUR/thsd.nm³ to EUR/MWh by applying a coefficient approved by the Regulator for those heat energy tariffs approved by the Regulator by 3 April 2017. Amendments to the aforementioned methodologies allow merchants to apply to the Regulator with a request to determine the procedure for the application of tariffs, at the same time submitting a copy of the natural gas supply contract signed after 3 April 2017 and a document certifying the current natural gas price.

Amendments to the methodology provide that in case of an authorisation the merchant has the possibility to decide whether and when to use the authorisation with the additional condition that the merchant is obliged to set tariffs for heat energy supply services if the natural gas price is lower than the corresponding price in the applied final heat tariff. Namely, if the price of natural

gas decreases, the merchant is obliged to set a lower final tariff, thus promoting the protection of the interests of the users.

9.2.2. Tariffs and tariff changes

Until the opening of the natural gas market (until April 3, 2017), for the companies that use natural gas in the production process, heat tariffs were approved in a tabular form at different natural gas prices and could change each month depending on the natural gas sales price determined by the natural gas system operator in the relevant month. The Regulator approved tariffs for heat energy supply services for 13 merchants; the application procedure was also decided upon for one merchant which was using natural gas in the production process. The Regulator points out that the production tariff is not the final tariff for the end users of heat energy, it is only part of the final tariff of heat energy.

In 2017, the Regulator also approved five decisions regarding the tariff application procedure for tariffs approved before the opening of the natural gas market, where, due to the increase in the price of natural gas, heat tariffs also grew (two of the merchants supply heat to end users).

The Regulator issued four authorisations, and two merchants (JSC "Valmieras piens" and "Valmieras ūdens" Ltd) used the authorisations and set new tariffs. The Regulator has approved fixed heat energy tariffs for six merchants using natural gas in the production process because the natural gas costs consist of the fixed natural gas price stipulated in the new contract.

Merchant	The Regulator's decisions	The approved thermal energy tariff EUR/MWh	Date of tariff's entry into force	Type of tariff for heat supply service provided by merchant
<i>Ventspils siltums</i>	Decision on tariff approval	54.90	05.03.2017.	Final tariff
<i>Mārupes komunālie pakalojumi</i>	Decision on tariff approval	50.32	01.04.2017.	Final tariff
<i>Grobiņas namserviss</i>	Decision on tariff approval	54.75	01.04.2017.	Final tariff
<i>Tukuma siltums</i>	Decision on tariff approval	50.58	01.06.2017.	Final tariff
<i>Cēsu siltumtīkli</i>	Decision on tariff approval	60.70	01.09.2017.	Final tariff
<i>MS siltums</i>	Decision on tariff approval	48.00	01.09.2017.	Final tariff
<i>Valmieras ūdens</i>	Decision on tariff approval	58.72	01.12.2017.	Final tariff
<i>Valmieras piens</i>	Decision on tariff approval	39.75	15.07.2018.	Production tariff

<i>Brocēnu Enerģija</i>	Decision on tariff approval	33.85	01.08.2017.	Production tariff
<i>Valmieras enerģija</i>	Decision on tariff approval	41.28	10.08.2017.	Production tariff
<i>Vangažu sildspēks</i>	Decision on tariff approval	49.95	07.12.2017.	Production tariff
<i>Baložu siltums</i>	Decision on tariff approval			Production tariff
	Decision on tariff approval	48.16	01.11.2017.	Production tariff
Merchant	The Regulator's decisions	The applied thermal energy tariff in December 2017, EUR/MWh	Date of tariff's entry into force	Type of tariff for heat supply service provided by merchant
<i>Vangažu namsaimnieks³²</i>	Decision on tariff approval and application procedure		01.02.2018.	Final tariff
<i>Daugavpils siltumtīkli</i>	Application procedure	50.53		Final tariff
<i>ĀDAŽU NAMSAIMNIEKS</i>	Application procedure	53.27		Final tariff
<i>Latvenergo TEC-1</i>	Application procedure	28.36		Production tariff
<i>Latvenergo TEC-2</i>	Application procedure	29.10		Production tariff
<i>JUGLAS JAUDA</i>	Application procedure	33.15		Production tariff
<i>BAL TENEKO (Attekas Street)</i>	Application procedure	38.66		Production tariff
<i>BAL TENEKO, SIA (Gaujas Street)</i>	Application procedure	45.12		Production tariff
<i>Fortum Jelgava³³</i>	Authorisation			Final tariff
<i>Valmieras ūdens</i>	Authorisation			Final tariff

³² Vangažu namsaimnieks Ltd tariffs were approved on 28 December 2017 and entered into force on 01 February 2018, therefore in December 2017 the previously approved 2008 tariff at the natural gas trade price last published by the natural gas system operator is in effect.

³³ Authorisation means decisions that determine the right for merchants to set their own tariffs upon the occurrence of the conditions mentioned in the text (see sub-section "Tariff calculation methodologies"). The reference includes all four operators that have been granted authorisation.

<i>BABĪTES SILTUMS</i>	Authorisation			Final tariff
<i>Valmieras piens</i>	Authorisation			Production tariff
Merchant	The Regulator's decisions	The determined thermal energy tariff EUR/MWh	Date of tariff's entry into force	Type of tariff for heat supply service provided by merchant
<i>Valmieras piens</i>	Determined tariff	41.00	01.01.2018.	Production tariff
<i>Valmieras ūdens</i>	Determined tariff	58.94	01.01.2018.	Final tariff

At the end of 2017, four heat supply service tariff proposals were being reviewed by the Regulator. In 2017, the Regulator ordered Baložu siltums Ltd to recalculate its tariff proposal. As a result, a tariff of 4.94 EUR/MWh or 9.3% lower than initially calculated by the merchant was approved for Baložu siltums Ltd. In most cases, the tariffs approved by the Regulator were lower or at the same level as those calculated by the companies in their initial tariff proposals.

In 2017, the tariff application procedure was set for previously approved (until the opening of the natural gas market) thermal energy tariffs for those heat energy merchants for which new tariffs were not approved, or if merchants did not use the authorisation to set heat tariffs themselves, the tariff approved by the Regulator at the natural gas system operator's last published natural gas trading price was applied.

After the conclusion of a new contract for the supply of natural gas, the price of natural gas increased compared to the last natural gas trading price published by the natural gas system operator. As a result, when submitting a new tariff proposal to the Regulator, the costs of natural gas increased and, consequently, so did heat energy tariffs. Merchants submitted tariff proposals with calculated increase of heat tariffs also in connection with the expiry of the mandatory procurement period of electricity produced in cogeneration plants.

The Regulator sets the heat energy tariffs in EUR/MWh, where the tariff-forming costs include the costs necessary for the efficient provision of heat supply services up to the ownership boundary of the heat supply, usually up to the entry into the building.

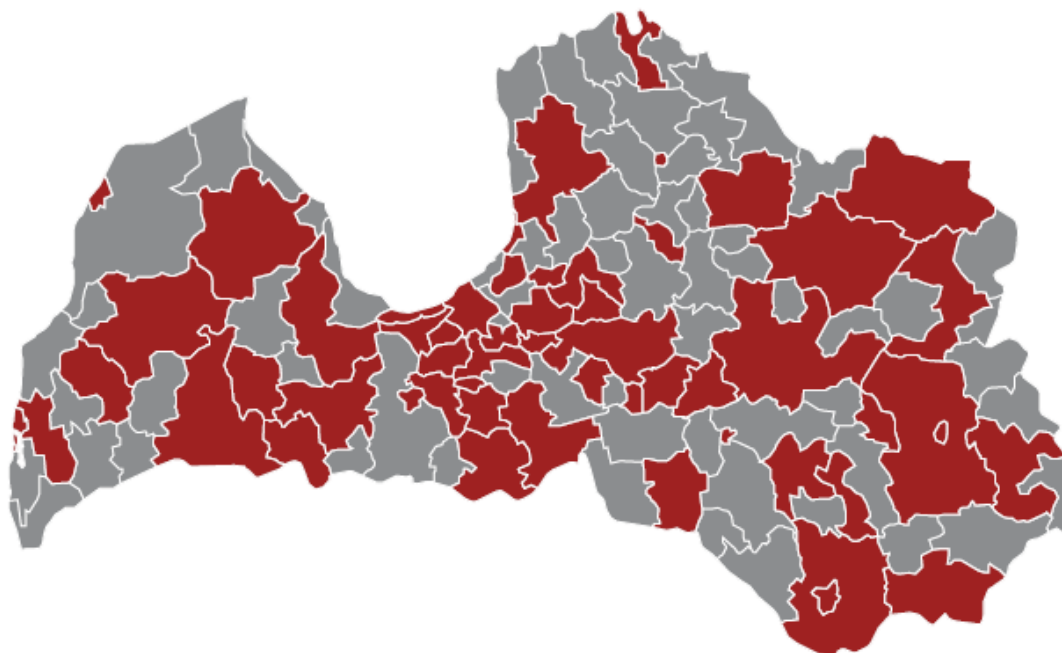
Merchants addressed the Regulator in connection with heat tariffs, mainly after opening of the natural gas market, after the termination of the mandatory procurement of electricity, as well as regarding changes in the cost of purchased heat energy.

9.3. PROTECTION OF SERVICE USERS

The number of user complaints in the heat supply sector is decreasing

The Regulator approves thermal energy tariffs for regulated heat supply companies, except for tariffs for independent heat producers operating in the zone of a district heating system operator.

Locations where regulated companies provide services



For public service providers to ensure continuous, safe and high-quality public services, the Regulator not only monitors the activities of merchants and carefully evaluates the submitted tariff proposals, but also compiles and analyses the complaints received from the users. At the same time, the Regulator, in accordance with the Law on the Regulators of Public Utilities³⁴, is obliged as an out-of-court body to settle disputes between public service providers and users or between service providers about their rights and obligations.

In 2017, two of the four complaints received in the heat supply sector concerned the provision of district heating in the territory of local governments and two complaints were about bills issued by a heat supply service provider. When assessing the complaints examined in the heat supply sector, none of the complaints concerned the competence of the Regulator. In 2017, no dispute regarding the provision of public services was initiated and settled in the heat supply sector.

The Regulator concludes that the reduction of the number of complaints and not addressing the Regulator regarding the initiation of a dispute settlement is related to the fact that users initially turn to their service provider to solve the problem and only then to the Regulator. At the same time, residents have become more informed about which issues fall within the Regulator's competence. Every year, in specific reports, the Regulator explains the nature of the complaints received, the competence of the authorities and the responsibility in each case for the complaints received, so that users can understand in the future what issues the user has to address to their

³⁴ Article 32(1) of the Law on Regulators of Public Utilities.

apartment building managers, service providers or the Regulator. The competence of the Regulator is to regulate the heat supply services provided up to the ownership boundary of the district heating system.

9.4. SECTOR DEVELOPMENT TRENDS AND CHALLENGES IN 2018

**Valentīns Hitrovs,
Director of the Energy Department**

Major changes in heat energy sector are related to changes in tariff calculation methodologies. According to the amendments, the companies are allowed to set their own tariffs in the open natural gas market if the purchase price of natural gas or the price of purchased thermal energy has changed. The new procedure does not change the scope of applied tariff supervision by the Regulator; however, it allows the companies to react more quickly to changes in the price of natural gas and purchased heat in the conditions of the open natural gas market. In the heat energy supply sector, along with changes in the tariffs for heat supply services, the Regulator's task is to monitor the tariffs applied by merchants for heat energy supply services so that the tariffs correspond to the changes in natural gas prices, purchased heat energy and revenue from electricity.

One of the challenges for the Regulator in the heating sector will be the introduction of cost benchmarking. Considering that in the open market of natural gas the companies have the possibility to apply economically justified (fuel) natural gas price in the tariff, the introduction of the benchmarking would allow to use the benchmark as a reference when evaluating the submitted tariff proposals. At the same time, it would allow to improve the economic justification of the costs included in the tariff proposals, as well as to reduce the administrative burden for the heat supply merchants.

10. WATER MANAGEMENT

10.1. REGISTRATION AND SUPERVISION OF MERCHANTS

The composition of water management companies has remained unchanged, work on automation for submission of technical information of annual reports continues

The obligations of the Regulator in the water management sector include regulation of water supply services and sewerage services, if the volume of public water management services provided by a merchant in at least one of four³⁵ types of public water management services exceeds 100 000 m³ per year.

Pursuant to the Law on Water Management Services, non-regulated water management service providers shall continue to be supervised by local governments, which have concluded agreements with these companies regarding the provision of water management services in their administrative territory

As of 31 December 2017, 65 companies were registered in the Register of Water Management Service Providers. Consequently, the number of water management companies regulated by the Regulator has not changed compared to 2016.

Regulated water management services in 2016 were provided in Riga, eight Republican cities, 438 towns, villages and smaller populated areas.

Compared to 2016, the distribution of water management services by the amount of public services provided has not changed significantly.

**Number of companies providing water management service
(by water volume delivered to users)**



³⁵ Water extraction and preparation, water supply, wastewater collection and disposal, wastewater treatment

**Number of companies providing water management service
(by collected wastewater volume)**



In both water supply and sewerage, more than half of the regulated water management services are provided in Riga and its surroundings.

In 2017, the Regulator performed 13 inspections of merchants at the place of provision of services. During the inspections, no violations of regulatory requirements were detected.

10.2. TARIFFS, TARIFF CALCULATION METHODOLOGY, TARIFF CHANGES

Regulatory environment for tariff setting for water management services and evaluation of tariff proposals without significant changes in the reporting year

As of December 31, 2017, 55 water supply tariffs and 57 sewerage service tariffs have been set for 65 merchants. This means that the tariffs for water management services set by the Regulator account for 69% of all tariffs for regulated water management services or charges set by local governments.

Tariff / charge type	Water supply service tariffs approved by the Regulator	Sewerage service tariffs approved by the Regulator	Water supply service tariffs approved by regional regulators or a charge approved by the municipality	Sewerage service tariffs approved by regional regulators or charge approved by the municipality
Number of tariffs/charges approved in 2017	55	57	26	25

10.2.1. Tariff proposals submitted and approved in 2017

In 2017, 13 submitted water management service tariff proposals were being evaluated by the Regulator.

On October 30, 2017, Rīgas ūdens Ltd, the largest provider of water management services in Latvia providing more than half of the regulated water management services submitted a tariff proposal, which was mainly related to the increase of operating costs, increase of natural resources tax, and also the reduction in the volume of water services provided.

Last year, the Regulator approved six water management service tariff proposals. Two tariff proposals were withdrawn during their evaluation.

Name of company	Area of operation of water management service tariffs	Date of adoption of the decision	As of 31 December 2017
<i>Auces komunālie pakalpojumi</i>	Auce municipality	02.03.2017	
<i>Kocēnu komunālā saimniecība</i>	Kocēnu municipality	22.02.2017	
Aizputes komunālais uzņēmums	Aizpute, Aizpute municipality	13.04.2017	
<i>Ciemats</i>	Ropažu municipality, Ropažu, Mucenieku, Silakroga and Tumšupes villages	15.06.2017	
<i>Kandavas komunālie pakalpojumi</i>	Kandava city; Kandavas rural territory; Cēres, Matkules, Vānes and Zemītes parishes		Tariff proposal withdrawn
<i>Tukuma ūdens</i>	Tukuma city	14.12.2017	
Valgums-S	Salaspils municipality	14.12.2017	
<i>Komunālserviss TILDe</i>	Degoles, Džūkstes, Irlavas, Lestenes, Sēmes, Slampes, Tumes, Zentenes parishes		Tariff under evaluation
<i>MĀRUPES KOMUNĀLIE PAKALPOJUMI</i>	Jaunmārupes, Mārupes, Skultes, Tīraines un Vētras ciemā, Mārupes municipality		Tariff under evaluation
<i>Viļānu namsaimnieks</i>	Viļānu municipality		Tariff proposal withdrawn

<i>Rīgas ūdens</i>	Rīga; Baltežera village and Garkalnes village, Ādažu municipality; Berģu village, Baltežera village, Makstenieku village, Langstiņu village, Upesciema village and „Alīses”, „Remberģi 1”, „Remberģi 2”, „Selgas”, Garkalnes municipality; Krustkalnu and Valdlauču villages, Ķekavas parish, Ķekavas municipality; Dreiliņu, Rumbulas and Ulbrokas villages, Stopiņu municipality		Tariff under evaluation
<i>Jaunpils KS</i>	Jaunpils municipality		Tariff under evaluation
<i>Limbažu komunālserviss</i>	Limbažu city, Katvaru parish, Limbažu parish, Pāles parish, Umurgas and Viļķenes parish, Limbažu municipality		Tariff under evaluation

At present, the need to review tariffs in the water management sector is basically determined by the fact that in the last 10-15 years the implementation of water management development projects co-financed by the European Union funds continues in Latvia. There are several key objectives for these projects. Firstly, to ensure the availability and continuity of water management services for users. Secondly, to provide users with water that meets quality and safety requirements. Thirdly, to minimize the risks of environmental pollution by sewerage services. The relevant factors are taken into account when installing or rebuilding engineering networks and equipment, selecting technologies and creating new user connections, but it requires additional resources for both creation and maintenance of fixed assets.

Name of company	Area of operation of water management service tariffs	Approved water management service tariff (changes against the initially submitted tariff), EUR/m³	Approved sewerage service tariff (changes against the initially submitted tariff), EUR/m³
<i>Auces komunālie pakalpojumi</i>	Auce municipality	0.86 (-0,13)	1.19 (-0.04)
<i>Kocēnu komunālā saimniecība</i>	Kocēni municipality	0.89	1.24
<i>Aizputes komunālais uzņēmums</i>	Aizpute, Aizpute municipality	0.93 (-0.04)	1.35
<i>Ciemat</i>	Ropažu novads, Ropažu, Mucenieku, Silakroga and Tumšupes villages	0.81 (+0.05)	1.14 (+0.10)

<i>Tukuma ūdens</i>	Tukuma city	1.00 (-0.03)	1.37 (-0.02)
<i>Valgums-S</i>	Salaspils municipality	0.91 (-0.14)	1.36 (-0.08)

The need to review all approved water management tariffs was related to the implemented water management system development and arrangement projects.

10.2.2. The most important positions in tariff proposals that have changed compared to 2016

In 2017, on average, 53.7% of the costs in water supply services tariffs were related to the depreciation of fixed assets³⁶, their maintenance and repair, provision of services. On average, 42.8% are staff costs in these tariffs. Tax and credit interest payments are insignificant in the tariff-forming costs.

Name of company	Area of operation of water management service tariffs	Depreciation of fixed assets in the water supply service tariff, %	Maintenance and repair costs of fixed assets, other operating costs in the water supply service tariff, %	Personnel costs in the water supply service tariff, %
<i>Auces komunālie pakalpojumi</i>	Auce municipality	11.5	49.4	33.6
<i>Kocēnu komunālā saimniecība</i>	Kocēni municipality	4.0	52.2	40.4
<i>Aizputes komunālais uzņēmums</i>	Aizpute, Aizpute municipality	17.1	28.9	47.9
<i>Ciemats</i>	Ropažu novads, Ropažu, Mucenieku, Silakroga and Tumšupes villages	10.8	39.4	46.9
<i>Tukuma ūdens</i>	Tukuma city	25.3	30.7	39.6
<i>Valgums-S</i>	Salaspils municipality	20.4	24.6	48.4
On average, in the set water supply service tariffs		14.9	37.5	42.8

³⁶ The share of depreciation of fixed assets in the tariff-forming costs of water services is determined by the share of projects co-financed by the regulated companies. According to the requirements of the Regulator's Methodology for calculation of water management service tariffs, the share of European Union co-financing shall not be included in the costs forming the water management tariffs.

A similar ratio was also observed in the sewerage service tariffs set in 2017. On average, 59.4% were costs related to the depreciation of fixed assets, their maintenance and repair, and the provision of service. On average, 39.6% of the costs in these tariffs were staff costs. Tax and loan interest payments were insignificant.

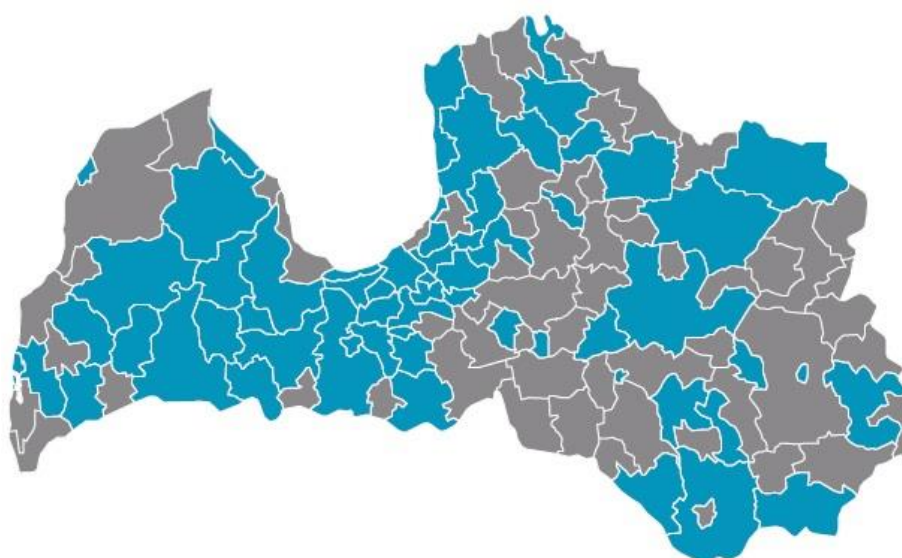
Name of company	Area of operation of water management service tariffs	Depreciation of fixed assets in the sewerage service tariff, %	Maintenance and repair costs of fixed assets, other operating costs in the sewerage service tariff, %	Personnel costs in the sewerage service tariff, %
<i>Auces komunālie pakalpojumi</i>	Auces municipality	19.8	51.1	28,2
<i>Kocēnu komunālā saimniecība</i>	Kocēnu municipality	4.2	58.1	35.8
<i>Aizputes komunālais uzņēmums</i>	Aizpute, Aizputes municipality	27.6	29.4	42.6
<i>Ciemats</i>	Ropažu municipality, Ropažu, Mucenieku, Silakroga and Tumšupes villages	15.3	41.9	42.1
<i>Tukuma ūdens</i>	Tukuma city	24.3	41.5	33.0
<i>Valgums-S</i>	Salaspils municipality	9.9	33.2	56.5
On average, in the set sewerage service tariffs		16.9	42.5	39.7

10.3. PROTECTION OF SERVICE USERS

Service users and merchants solve mutual problems independently, resulting in a decrease in the number of complaints received

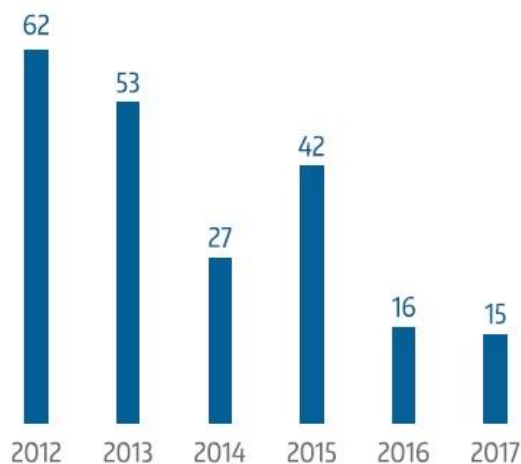
In 2017, compared to 2016, the territory of provision of water management services supervised by the Regulator has not changed. The largest concentration of service providers is still in Riga and Zemgale region.

Service provision locations of regulated companies



The dynamics of the number of complaints reviewed by the Regulator between 2012 and 2017 reflects a strong tendency for the number of received complaints to decrease. This is a positive signal for both the improvement in the quality of services provided by merchants and the growing level of user awareness about service regulation.

The number of complaints in the water management sector



The majority of consumers who addressed the Regulator complained about the behaviour of water management service providers in relation to concluded public water supply service contracts. Users also complain about the application of the water services tariffs currently in force. Further information on the content of complaints and their evaluation is available in the Regulator's Complaint Report available on the Regulator's website.

In all cases, the Regulator provides answers with detailed explanations. In cases where the submitted complaint is not a matter of competence of the Regulator, the responsible institution, which is competent to solve the problem in the complaint, is indicated to the applicants.

Breakdown of water management complaints by content	2015		2016		2017		Changes 2017/2016
	number	%	number	%	number	%	
About water management service providers' actions in relation to concluded public water management service contracts	4	10	5	31	8	53	3
About settlements (including direct payments)	7	17	4	25	-	-	-4
About application of the water services tariffs currently in force	6	15	2	13	2	13	-
On the validity of the cost positions included in the submitted water tariff proposals, the possibility to get acquainted with the submitted water management tariff proposals	14	34	2	13	-	-	-2
About water meter installation and replacement	1	2	-	-	-	-	-
On debt repayment	-	-	-	-	2	13	2
On the quality of water management services (in relation to submitted water service tariff proposals) and provision of the service	4	10	1	6	2	13	1
Other	5	12	2	13	1	7	-1
Total	41	100	16	100	15	100	-1

10.4. SECTOR DEVELOPMENT TRENDS AND CHALLENGES IN 2018

**Agnese Kozlovska,
Director of the Water Management and
Waste Disposal Services Department**

In the coming years, the tariffs for water management services approved by the Regulator are expected to continue to increase due to changes in the minimum wage rate, tax rates, and because merchants invest in the renovation and expansion of water management systems, which require significant financial resources. Electricity costs are one of the most important water management service cost items, therefore the Regulator will continue to inform merchants about the possibilities to reduce these costs by choosing appropriate capacity connections and taking other measures, as well as will follow the progress.

In order to promote the improvement of efficiency of water management service provision, in 2018, the Regulator plans to evaluate the possibilities of limiting the costs related to water losses in water supply engineering networks in water service tariff proposals by developing a calculation of unavoidable water losses, analysing its application possibilities in the tariff proposals of regulated companies and the ability to determine to what extent the reduction of water losses is economically justified.

Water management service providers continue to work on the implementation of the operational programme of the European Union funds' planning period 2014-2020 - to develop and improve the quality of water supply and sewerage system services and to ensure connection possibilities. Within the framework of this program co-financed by the European Union funds, water management service providers are mainly focused on increasing the availability of sewerage services, which is very important from the point of view of environmental protection.

It has been observed that several local governments intend to use their possibilities to decide on co-financing for the establishment of new connections to newly built engineering networks from the municipal budget. This will have a positive impact on the availability of water management services and will increase the volume of services provided.

11. MUNICIPAL WASTE DISPOSAL

Changes in regulatory enactments - impact on the tariff for municipal waste disposal service

11.1. AUTHORISATION AND SUPERVISION OF COMPANIES

The number of merchants and the volume of regulated public services has remained at the current level

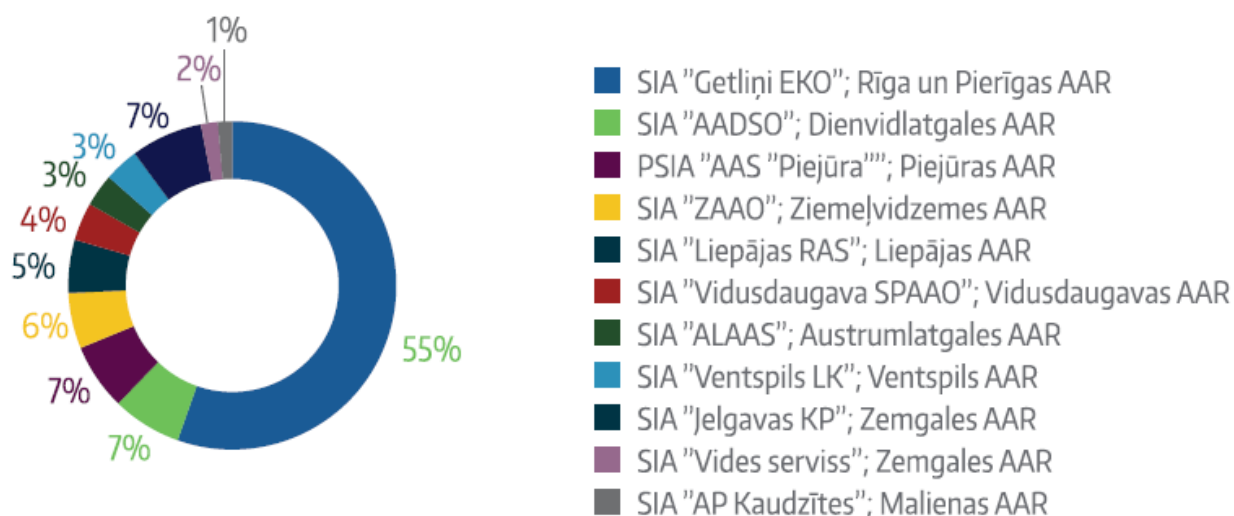
In the municipal waste management sector, the Regulator only regulates the provision of the municipal waste disposal service at municipal waste landfills (hereinafter – landfills). In order to provide a municipal waste disposal service, a public service provider must be registered in the Register of Providers of Municipal Waste Disposal Services (hereinafter - the Register) and a municipal waste disposal service tariff approved by the Regulator (hereinafter – waste disposal service tariff) is required.

As of 31 December 2017, 11 public service providers were registered. In 2017, the Regulator registered only one new service provider - "VIDES SERVISS" Ltd, which started operations on January 1, 2017 in the "Grantiņi" landfill (Code parish in Bauska municipality). One service provider - "Zemgales EKO" Ltd was excluded from the Register; it provided the service until December 31, 2016 in the above-mentioned "Grantiņi" landfill. Changes in landfill management were related to the reorganization of "Zemgales EKO" Ltd, which was carried out at the end of the five-year post-monitoring period of the project co-financed by the European Union Cohesion Fund. As a result of the reorganization, the property related to the management of the landfill "Grantiņi" was transferred to the Bauska municipality, which added the separated property to its owned company "VIDES SERVISS" Ltd, which also took over the provision of the public service in the landfill "Grantiņi".

In 2017, two public service provider inspections were carried out at service provision locations. In one case, there was a planned inspection ("Vidusdaugava SPAAO" Ltd), in the second case the inspection was related to the change of the public service provider ("VIDES SERVISS" Ltd). No violations or shortcomings of regulatory requirements were found during the inspections.

Analysing information on the total amount of unsorted municipal waste managed in Latvia, the landfill "Getliņi" is still the largest municipal waste landfill in Latvia, which manages more than half of the total unsorted municipal waste. This tendency is related to the economic activity of the region, the density of waste producers and the number of residents living in Riga and near Riga, which has the highest concentration of waste producers in Latvia. The amount of unsorted municipal waste accepted in landfills has decreased by 1% compared to 2016, reaching 518.5 thousand tons.

Distribution of unsorted municipal waste for disposal by landfill in 2017 (% share in total)



11.2. TARIFF CALCULATION METHODOLOGIES, TARIFFS, TARIFF CHANGES

A year of significant changes in the regulatory environment in the waste management sector

11.2.1. Tariff calculation methodologies

On January 1, 2017, amendments to the Waste Management Law came into force, which stipulated that the landfill operator shall reduce the costs included in the tariff by the part of the revenue it receives as the difference between the payment for the natural resources tax (hereinafter - NRT) paid by the waste manager and NRT transferred to the state budget for the disposal of municipal waste. In accordance with the amendments to the Waste Management Law, on 16 February 2017, the Regulator approved a new Methodology for calculating the municipal waste disposal service tariff (hereinafter - Methodology)³⁷.

Based on the above-mentioned changes in the Waste Management Law, by 31 December 2017, all the companies that manage landfill sites had to submit to the Regulator tariff proposals calculated according to the Methodology. By the end of 2017, tariff proposals according to the Methodology's cost and revenue allocation were submitted by all service providers registered in the Regulator's Register.

At the end of 2017, the Regulator prepared draft amendments to the Methodology. The amendments were related to the changes in the Waste Management Law, which came into force on 1 January 2018 and provide for including in the calculation of waste disposal tariff the NRT for the disposal of municipal waste in the amount specified in regulatory enactments³⁸. Prior to that, NRT was part of a separate unsorted municipal waste management fee.

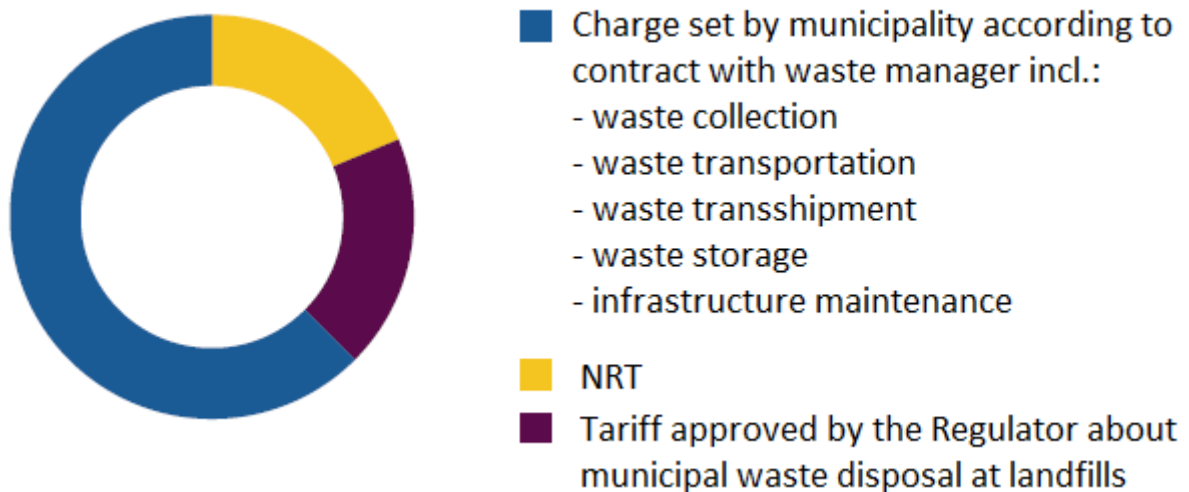
³⁷ Decision of the Regulator's Board No 1/5 on the Methodology for calculating the municipal waste disposal service tariff of February 16, 2017.

³⁸ On January 18, 2018, the Regulator's Board adopted the decision "Amendments to the Public Utilities Commission's Decision No 1/5 "Methodology for Calculating the Municipal Waste Disposal Service Tariff" of 16 February 2017".

11.2.2. Tariffs

The municipal waste disposal service tariff is only one part of the total charge for municipal waste management paid by the waste producer. The second part, determined by the municipality, is the charge for the collection, transportation, transshipment, sorting (including other activities prior to waste recovery and reducing the amount of waste to be disposed of) of municipal waste, storage, maintenance of separate waste collection, handling and sorting infrastructure facilities in accordance with the contract concluded by the municipality with the waste manager. Until January 1, 2018, a third of the total cost of waste management consisted of the NRT, which is currently included in the disposal service tariff according to the changes in the Waste Management Law. The NRT rate will change every year until it reaches 50 EUR/tonne in 2020. Along with the aforementioned changes in regulatory enactments in 2018, the waste management fee will consist of only two parts.

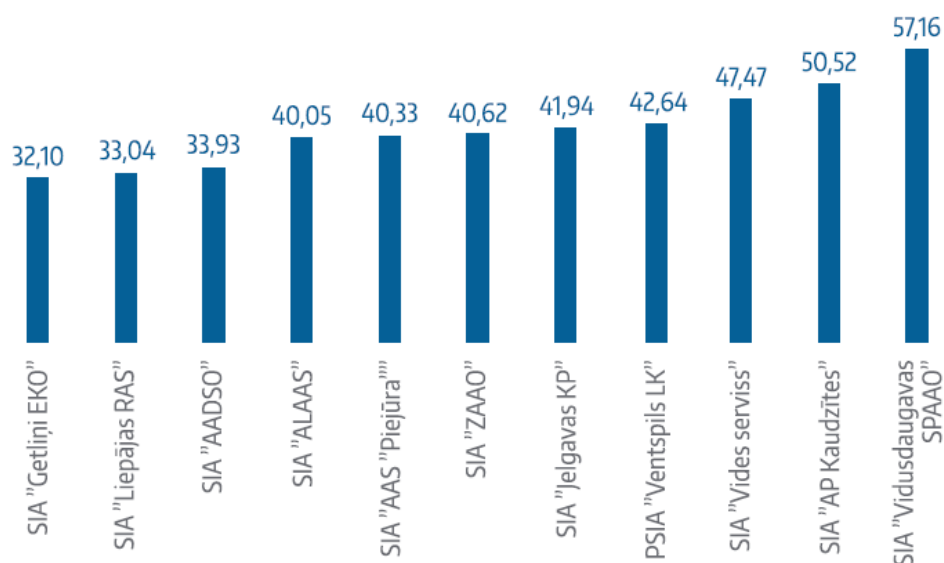
Components of the waste management fee in 2017³⁹



In 2017, the Regulator approved new disposal service tariffs for four merchants - "Ventspils labiekārtošanas kombināts" Ltd, "AP Kaudzītes" Ltd, "Jelgavas komunālie pakalpojumi" Ltd and "ALAAS" Ltd.

³⁹ The proportions are informative, the size of the proportions does not describe the waste management fee in a particular administrative area.

Payment for municipal waste disposal at landfill gate incl. NRT (EUR/t)⁴⁰



The difference in tariffs for municipal waste disposal services is determined by a number of factors, for example, whether or not a waste pre-treatment centre has already been set up at a landfill, where biodegradable waste and materials for further processing are mechanically separated from the municipal waste. At the same time, there is an impact caused by economic activity, population density and development of a separate waste collection system in the region from which waste is delivered to the respective landfill, as the total amount of waste deposited in the landfill depends on it. The tariffs of the disposal service are also influenced by the technologies used at landfill site, such as infiltration management, biodegradable waste management and biogas utilization, as well as whether landfill transshipment stations exist in the waste management region. A significant impact on the final payment at the landfill gate is generated by the amount of waste that the landfill operator manages to separate for future use as it is not subject to NRT.

Almost all merchants that provided regulated municipal waste disposal services in 2017 have implemented investment projects to ensure that unsorted municipal waste is prepared for disposal and biodegradable waste, as well as waste suitable for further processing and recovery is separated from the unsorted waste. Merchants are moving towards the goals set by the European Union directives⁴¹, meeting environmental protection requirements, which at the same time increase costs and increase the tariffs for municipal waste disposal services.

The increase of the NRT rate, which was 25 EUR/t in 2017, compared to 2016 when the rate was 12 EUR/t caused a significant increase in costs for household waste disposal service users. As of January 1, 2018, the NRT rate has reached 35 EUR/t, which leads to a significant increase in disposal service tariffs. The relevant NRT rate will increase every year until it reaches 50 EUR/t in 2020, which will affect the sector's tariff increases in the coming years. Therefore, in order to reduce the cost of waste disposal, sorting of waste for recycling is essential, thus reducing the amount of NRT that would have to be paid for the disposal of this waste. An important role in the

⁴⁰ The payment is calculated according to the tariffs approved by the Regulator and information submitted to the Regulator about the proportion of disposed municipal waste to which the NRT applies.

⁴¹ According to EU Directive 1999/31/EC on the landfill of waste, by 2020, only 35% of the biodegradable waste disposed of in 1995 should be disposed of in landfills, and at least 50% of household waste should be recycled from the existing paper, metal, plastic and glass waste.

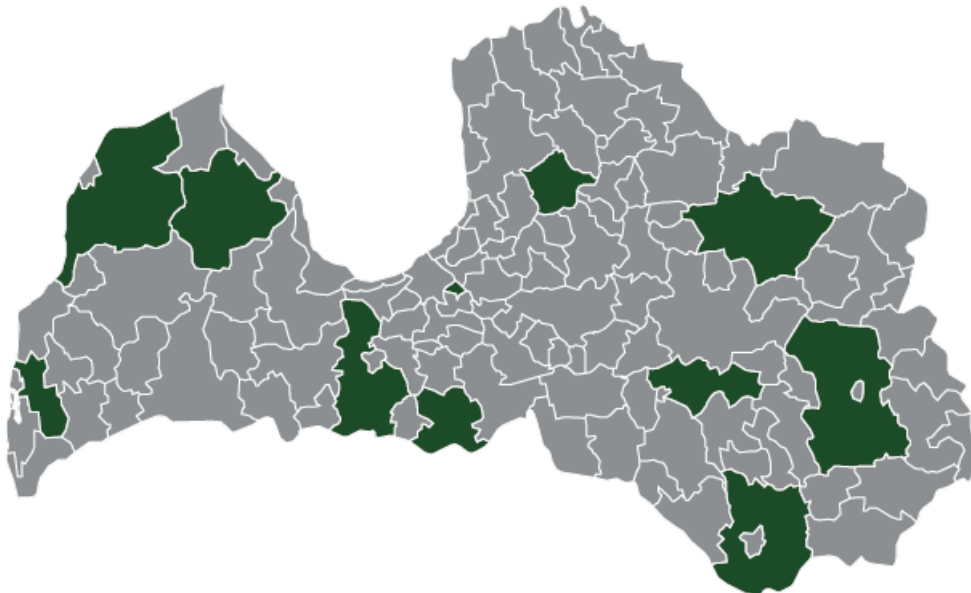
preparation of waste for further processing is the sorting of waste at the source of its generation by residents, which provides a much better chance of obtaining high-quality recycling material.

11.3. PROTECTION OF SERVICE USERS

Performing functions specified by the law⁴², the Regulator annually compiles information about complaints submitted to the Regulator including the waste disposal sector. In 2017, the Regulator has not received any user applications in connection with the municipal waste disposal service. It should be noted that in 2016 the Regulator received only one complaint, which leads to the conclusion that the Regulator's daily work over several years has resulted in user awareness of consumer rights, merchant responsibilities, issues of competence of the Regulator and local governments in the waste sector. The Regulator provides daily advice on how to deal with problem situations and explanations of possible solutions.

In 2017, the geography of access to the municipal waste disposal service has not changed.

Locations of provision of waste disposal services



⁴² Law on Regulators of Public Utilities

11.4. SECTOR DEVELOPMENT TRENDS AND CHALLENGES IN 2018

**Agnese Kozlovska,
Director of the Water Management and
Waste Disposal Services Department**

In 2018, the Regulator assessed the municipal waste disposal service tariffs of all municipal waste disposal landfill operators, because, taking into account the amendments to the Waste Management Law which came into force on 1 January 2017, municipal waste landfill operators had to submit new tariff proposals to the Regulator for review no later than 31 December 2017. This requirement has been met by all landfill operators. Changes in tariffs have also been introduced by the amendments to the Waste Management Act adopted in December 2017, which stipulate that in future the calculation of the municipal waste disposal service tariff should also include NRT for municipal waste disposal. So far, NRT was part of a separate unsorted municipal waste management fee. According to the amendments, all waste disposal tariffs will be recalculated and evaluated.

Tariffs for waste disposal services will tend to increase in the coming years, as almost all operators who manage landfills have made significant investments by 2017 in the purchase of mechanical waste sorting technology equipment and technological equipment for the further processing and recovery of biodegradable waste. As a result, waste flows have changed significantly in landfills, and only a part of the total amount of municipal waste that is delivered to landfill is disposed of in the waste repository. Investments in waste disposal facilities can only be recovered by merchants through tariffs, so the eligible costs of disposal services will increase. Meanwhile, due to the decreasing amount of waste actually disposed of, NRT payments are decreasing, which is very important given that NRT rate increases significantly each year.

Taking into account the information provided by sector companies within the framework of tariff proposals submitted in 2017, it can be concluded that merchants also plan further development by attracting European Union co-financing for more efficient treatment of biodegradable waste and waste recovery in thermal energy. The increase in waste disposal tariffs should encourage waste producers to sort waste by developing separate waste management and pre-treatment of collected waste before landfilling, thereby reducing the amount of landfilled and disposed waste.

12. INTERNATIONAL COOPERATION

The year 2017 has been particularly important for the Regulator in international cooperation - several memoranda of cooperation and international agreements have been signed in the sectors of energy, electronic communications and water management services, which confirm the interest of regulators of other countries to develop cooperation with the Regulator and share their experience on regulatory issues. The Regulator has also been active in international organizations and sectoral forums to implement the European Union single market in each sector and to exchange regulatory practices. Work on the implementation of the recommendations of the OECD peer review of the Regulator in 2016 has been successfully continued.

12.1. ELECTRONIC COMMUNICATIONS

The Regulator also worked actively with mobile operators to implement the monitoring of "roam like at home" from 15 June 2017 onwards. At the same time, the Regulator participated in the elaboration of the strategy of the Body of European Regulators for Electronic Communications (BEREC) and development of the overall review of net neutrality. In addition, the Regulator's experts shared their experience and introduced national regulators with the development of broadband in Latvia, speaking at the summit of the regulators of the European Union, South America, Mediterranean and Eastern Partnership countries. Working on the future European Electronic Communications Code at BEREC level, the Regulator was particularly involved in the definition of services and regulation and radio spectrum issues.

In the working group of the Numbering and Network Committee of the European Conference of Postal and Telecommunications Administrations (CEPT), the Regulator actively participated in solving issues of numbering, interconnections, quality of service and access.

The Regulator also participated in the annual meeting of the Baltic Electronic Communications and Postal Regulators (BaltReG), which discussed a wide range of issues including the implementation of the roaming regulation, recent decisions on market analysis results, the Internet of Things, the practical implementation of network neutrality rules, and so on.

Regarding international cooperation projects, we should particularly highlight the transfer of the Regulator's experience to the Kosovo Telecommunications Regulator on the shared use of infrastructure within the framework of the TAIEX project, winning the consortium with the Italian and German electronic communications regulators in the twinning project application for the introduction of electronic communications regulation in Israel, as well as participation in the Eastern Partnership's Electronic Communications Regulators' contact network, sharing Latvia's experience in regulation of net neutrality and infrastructure of broadband access with significant market power.

It should also be emphasized that the Regulator signed a Memorandum of Cooperation with the Georgian regulator to protect the interests of Latvian and Georgian mobile users from excessive price increases for calls, text messages and data usage while roaming in Georgia or Latvia.

12.2. POST

For the third year in the postal sector, extensive discussion on the regulation of cross-border postal parcels continued. It provides for new responsibilities in the supervision of regulated operators. In this respect, the Regulator, representing a small country, would like to extend the scope of the supervised merchants, determining as one of the criteria for the supervision of the

regulated companies that supervision should be applied if a company employs 25 people and not 50, which is the existing offer.

In turn, the regional discussion on the regulation of the postal sector at the regional meeting of BaltReg focused on aspects of the universal service, cross-border delivery of postal parcels and e-commerce.

12.3. ENERGY

In the energy sector, implementing the European Commission regulation (network code on harmonised transmission tariff structures for gas), the Baltic and Finnish regulators agreed to develop a tariff-setting model with the help of independent experts for the Baltic-Finnish single natural gas market, which would start its activities after 2020. The tariff model methodology would establish a common approach for calculating natural gas transmission tariffs for each natural gas transmission operator in the Baltic States.

The Regulator also continued to act in the joint decision-making of all European Union regulators by introducing network codes. At the same time, it is worth mentioning that there are network codes on which decisions must be adopted at regional level. The Regulator drafted a proposal for regional decision-making rules and managed its alignment with the Baltic, Nordic and Polish regulators, resulting in the signing of a Memorandum of Understanding on Decision Making in the Baltic Capacity Calculation Region.

In order to implement the electricity market supervision, the Regulator has regularly participated in ACER's REMIT working groups, as well as the Board of Regulators of Nord Pool, which acts as the Nordic-Baltic Regulators Board after EPEX SPOT started operations in the region.

Within the framework of regional co-operation, the Regulator organized the 23rd Baltic Electricity Market Forum, as well as the 5th Baltic Gas Market Forum, and delivered a seminar on regulation of Baltic district heating sectors, as well as organized a seminar for Baltic regulators, where the Italian energy regulator introduced the use of stimulating regulatory elements in electricity distribution.

Supporting the ERRA Regional Exchange Program exchange program, the Regulator, on the initiative of the Pakistani and Armenian regulators, shared its experience on wholesale electricity markets and the monitoring of joint electricity and gas projects as well as key aspects of the evaluation of tariff proposals submitted.

12.4. WATER MANAGEMENT

At the initiative of the Kosovo regulator, the Regulator signed a Memorandum of Cooperation to exchange information and experience on current water management regulatory issues.

Changing the status of the European Water Regulators (WAREG) was essential - its registration as an official non-profit association in the water services sector, which brings together 30 water regulators in Europe. The Regulator made proposals for the drafting of the statutes and internal rules of procedure, as well as organized a rotating meeting of the WAREG Assembly and the Working Group. Alongside these important processes, which have strengthened regulators' cooperation at European level, the Baltic States water regulators' experts have traditionally held a meeting, during which the experts of each regulator share their experience on specific regulatory aspects to improve the regulatory environment.

12.5. SECTOR DEVELOPMENT TRENDS AND CHALLENGES IN 2018

**Lija Makare,
Head of International Relations**

The areas of electronic communications, energy and post are those where the review of the existing regulatory framework will continue. Consequently, the Regulator expects new tasks and active participation mainly in European international organizations and regional fora, expressing the Regulator's opinion and preparing for new regulatory obligations.

In the electronic communications sector, after the entry into force of the Electronic Communications Code in 2018, regulators will have new responsibilities in monitoring broadband and investment plans, providing access, analysing markets, regulating radio spectrum and OTT services, and others where common guidelines will be developed by regulators through BEREC. It is essential that, when imposing new competences on regulators, the Code at the same time will strengthen the independence and discretion of regulators. 5G technologies will also be on the agenda of the regulators, as EU Member States signed a declaration on 18 July 2017 expressing their commitment that Europe should be the first in the development of future technologies, thus marking the work of the regulators in this area.

The regional cooperation between the Baltic and Nordic countries will continue on a new level, as the regulators of the Baltic States will join the high-level cooperation format of the Nordic regulators, where the top management of the regulators, meeting regularly, will try and solve the most urgent issues of regulation of the sector.

The most important issues in the postal sector, including e-commerce regulation, will result from the European Commission's proposal for a regulation on cross-border parcel delivery services of 25 June 2016, as well as the principles to be agreed at the 2018 Emergency Congress of the Universal Postal Union (UPU).

In the energy sector, the most important agenda items in 2018 are related to the introduction of network codes in the electricity and gas sectors at both European and regional capacity calculation regions (the three Baltic States, Finland, Sweden, and Poland), participation in the CEER and ACER working groups in the European Commission's package of documents "Clean Energy for All Europeans" and the formulation of the views of regulators.

In co-operation with the Italian energy regulator, a second workshop on the application of incentive regulation will be held, this time also involving distribution system operators. In the water sector, the Regulator will continue to be active in WAREG and its working groups, as well as participate in the Baltic Water Regulators' expert meeting.

13. MANAGEMENT OF THE REGULATOR

13.1. STRUCTURE AND WORK ORGANISATION

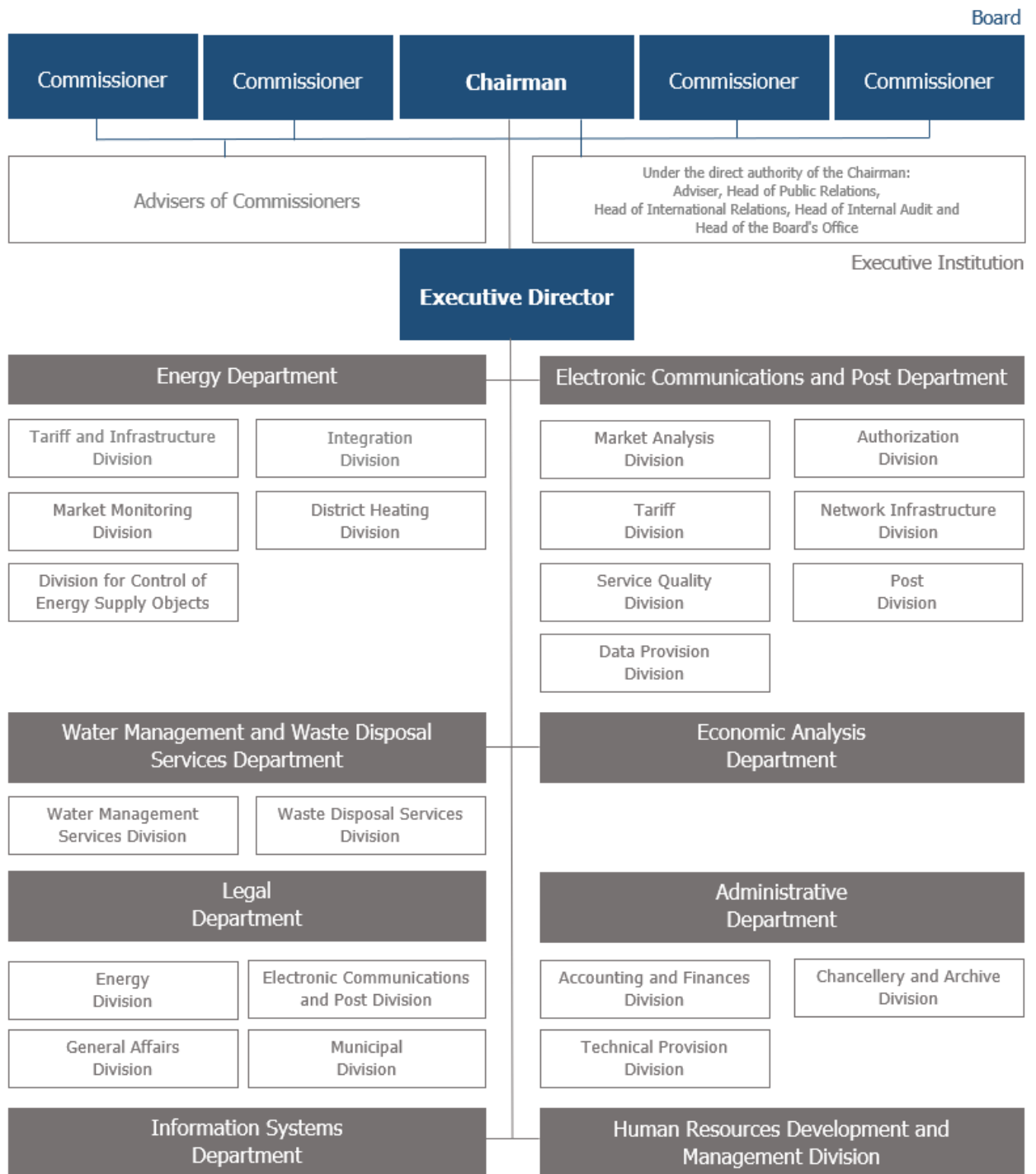
The organization and structure of the Regulator's work is determined by the Law on Regulators of Public Utilities. According to the law, the Board is the Regulator's decision-making body which consists of the Chairman of the Board and four Board members appointed by the Saeima (Parliament) of the Republic of Latvia. The Chairman and the members of the Board are appointed for a term of five years. The Board makes decisions on behalf of the Regulator and issues administrative acts that are binding for public service providers and users. In 2017, 47 Board meetings were held in which 183 Board decisions and 42 external normative acts were adopted.

The Board is subordinated to the executive institution, which performs the functions of the Board's secretariat and experts to prepare questions and documents for consideration at the Board meetings and to implement the decisions and administrative acts issued by the Board.

The executive institution is made up of an executive director, seven departments, including structural units corresponding to each regulated sector, and one independent unit.

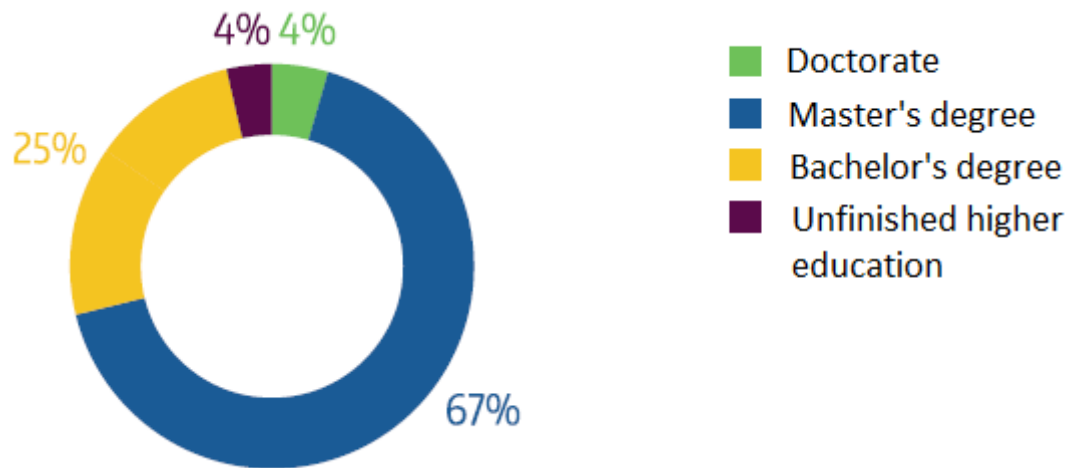
As of 31 December 2017, 111 employees worked at the Regulator. From the beginning of 2017 until the end of the year, the number of employees has increased by six, but the employment relationships were terminated with six employees. 83 employees work directly in the performance of regulatory functions, and 28 employees perform technical and administrative support functions.

Organisational chart of the Regulator on 31 December 2017

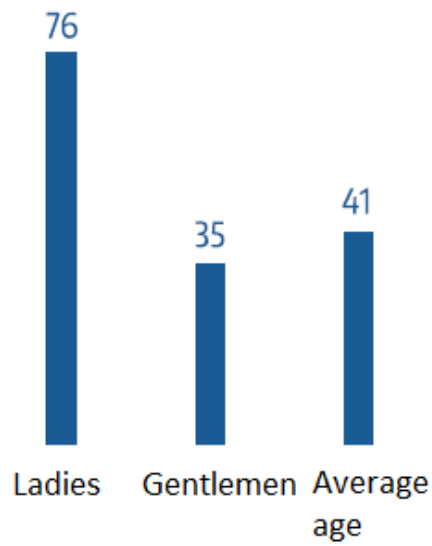


In order to carry out regulatory functions, the Regulator's employees must be highly competent. 83% of the Regulator's employees have a university degree. For maintaining high capacity, as one of the priorities in its operational strategy 2018-2021, the Regulator has identified the improvement and development of employees' competences by studying the most modern regulation methodologies.

Qualification level of the Regulator employees on 31 December 2017, (%)



There are 76 ladies and 35 gentlemen working in the regulator, the average age is 41 years.



14. FINANCING AND ECONOMIC ACTIVITIES

In 2017, the Regulator carried out its activities in a separate budget programme approved by the law "On State Budget for the Year 2017". The Regulator's operations are financed by the fees for public utilities regulation; the fees are paid by regulated companies. In the reporting year, the state fee in the regulated sectors was 0.2% of the net turnover of the relevant public service provided by the regulated company in 2016. The merchants, which started to provide public services in 2017, calculated the state fee from the net turnover of the respective type of public service planned by the merchant in the first year of operation. The Regulator's planned expenditures in 2017 were 4,950,570 EUR. Actual spending amounted to 4,796,786 EUR, which was 96.9% of the planned spending in the reporting year.

Pursuant to Article 31(7) of the Law On Regulators of Public Utilities, the actual balance of financing means, which in a given calendar year exceeds the costs necessary for the operation of the Regulator, is credited to the Regulator's account in the Treasury in the state fee accruals and can be used for ensuring the activities of the Regulator in future periods according to the budget of the Regulator approved by the law on state budget. The balance of financial resources as of 31 December 2017 in the basic budget was 519 240 EUR, which has been transferred to the account of the deposited funds of the Regulator and used to accrue the state fee.

The balance of financial resources on 31 December 2017 in other budget funds (liability for the received security) was 750 000 EUR, which consists of the deposit of security by the participants in the auction organized by the Regulator for the rights to use 3400 MHz - 3450 MHz and 3650 MHz - 3700 MHz frequency band. In 2018, 250 000 EUR was returned to an auction participant and 500 000 EUR were transferred to the national budget.

The Regulator's financial report 2017 was prepared in accordance with the Cabinet of Ministers Regulations No 1115 "Procedure for preparing an annual report" of 15 October 2013. The financial report 2017 has been submitted to the Treasury. On 14 March 2018, the Regulator's annual financial report 2017 was audited without objections by "Revīzija un vadības konsultācijas" Ltd (licence No.79 of the sworn auditor's commercial entity). In 2017, the Regulator concluded 53 economic cooperation agreements and organised nine public procurements in accordance with the Public Procurement Law.

No	Financial resources	Previous year (actual numbers)*	Pārskata gadā (EUR)	
			Approved by law	Actual numbers*
1	Total revenues, incl.	4 472 112	4 950 570	5 316 026
	<i>Fee based services and other income</i>	4 472 112	4 950 570	5 316 026
2	Total spending	4 472 212	4 950 570	4 796 786
2.1.	Administrative costs (total)	4 385 790	4 845 820	4 698 282
	<i>International cooperation</i>	75 765	25 765	25 765
	<i>Other administrative costs</i>	4 310 025	4 820 055	4 672 517
2.2.	Capital investments	86 422	104 750	98 504
	<i>* in accordance with the cash flow principle</i>			