

PUBLIC UTILITIES COMMISSION'S

ANNUAL REPORT 2020

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CHAIRMAN'S FOREWORD

01



Intars Birzinš

2020 has been an eventful year with significant changes for the Public Utilities Commission (PUC). Several of our planned tasks this year were completed faster than we initially expected, such as the transition to 100% electronic document circulation in our institution.

European regulators have acknowledged PUC's work and PUC continued to manage the preparation process of the 2021 Operational Program of the Council of European Energy Regulators (CEER).

We assessed the profit margins or rates of return on capital in the regulated sectors and set them lower. As a result, we approved profit margins for regulated companies at a historically lowest level. In 2020 and 2021, this meant a reduction in the profit included in the tariff for several regulated companies and inclusion of lower capital costs in the tariffs for consumers.

Last year, we also approved new electricity transmission tariffs. In the new transmission tariffs, we continued to bring the cost structure closer to the tariff structure, setting the fixed and variable components of the tariffs accordingly. These changes ensured a fairer distribution of costs among service users. The afore-mentioned profit margins are also related to the tariffs, resulting in the reduction of the cost of capital by 9.4 million euro.

For the first time in history, a negative electricity price on the power exchange was observed during some hours in Latvia. The negative electricity price on the exchange provided significant benefits for those consumers who had opted for exchange price contracts, - the total payment for the consumed electricity decreased.

Last year was atypical in terms of changes in market prices. A sharp drop in prices was observed in the natural gas market, reaching ten-year record lows. Thanks to these changes, households that use natural gas for heating and cooking have benefited from lower natural gas costs since 2020. The low price of natural gas also increased the demand for natural gas storage at the Inčukalns underground storage facility, reaching 100% filling of the storage facility.

Thanks to market trends, residents in many parts of Latvia paid less for thermal energy during the heating season last year. Tariffs of approximately 30% of regulated heat supply companies decreased, which provided more than 75% of all heat supplied to public service users in Latvia.

Changes have also taken place in the water management sector. For the first time, PUC approved the procedure for applying the tariffs of LLC Rīgas ūdens; as a result, the expenditures for water for the residents of Riga decreased by 7% for a few months. In total, 10 new water supply tariffs were approved last year: seven tariffs were reduced, one increased, and two remained unchanged.

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Due to regulatory amendments in the waste management sector, changes are expected over several years. At the end of 2020, the Saeima (Parliament of Latvia) adopted amendments to the NRT (Natural Resources Tax) Law, which provides for a gradual increase in the NRT rate for waste disposal. The tax increase will have an impact on waste disposal tariffs in 2021. To facilitate the tariff setting process, last year PUC approved the tariff application procedure for 10 landfill operators. At the same time, we elaborated regulatory enactments that will create a regulatory framework for the successful operation of the deposit system for used packaging from February 1, 2022; regulation of the system will be a new responsibility for PUC.

In the electronic communications sector, we continued to evaluate the quality of the Internet service. The results of our measurements demonstrate that the 4G network was available in 97% of the locations in Latvia where measurements were performed. The average download speed was higher last year than in 2019. Although everyone used the Internet intensively for education and teleworking during the Covid-19 emergency last year, the results show that the speed of the Internet remained stable.

Changes also took place in the postal sector, especially due to the pandemic, during which the number of sent postal parcels increased by 254%. As a result, the number of consumer complaints increased, especially about the delays in the delivery of postal parcels. Due to the supervision of the postal market, PUC prevented the application of increased tariffs for cross-border postal items to the USA during the pandemic, enabling citizens to recover the overpaid amounts.

Focusing on the principles of sustainable operations, last year we participated in the Sustainability Assessment Index organized by Korporatīvās ilgtspējas un atbildības institūts (Institute of Corporate Sustainability and Responsibility). According to the assessment by independent experts, PUC was awarded the bronze category, receiving confirmation that its activities comply with the principles of sustainable management.

Yours sincerely, **Intars Birziņš** (Acting Chairman)

TERMS AND ABBREVIATIONS

ACER – Agency for the Cooperation of Energy Regulators

BEREC – Body of European Regulators for Electronic Communications

BW – biological waste

CSB – Central Statistical Bureau

DSO – deposit system operator NRT – national resources tax

EC – European Commission

EEA – European Economic Area

EU – European Union

EUR/m3 – euro per cubic metre

EUR/MWh – euro par megawatt hour

g – gram

GB – gigabyte

GDP – gross domestic product

h – hour

HD – high definition

HHI – Herfindahl–Hirschman Index

IoT – Internet of Things

JSC – joint-stock company

km - kilometre

kV – kilowatt

LLC – limited liability company

LMT – Latvijas Mobilais Telefons

LVS EN 50160:2010 – Latvian standard "Voltage characteristics of public power supply networks"

M2M – Machine-to-machine – sending and receiving real-time information between devices connected to the Internet

m3 - cubic metre

Mbps – megabits per second

mln - million

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mln - million

ms – milliseconds

MWh – megawatt hour

No - number

PESQ – Perceptual Evaluation of Speech Quality

POLQA – Perceptual Objective Listening Quality Analysis

PUC – Public Utilities Commission

Q1 – first quarter

Q2 – second quarter

Q3 – third quarter

Q4 – fourth quarter

SAIDI – System Average Interruption Duration Index

SAIFI – System Average Interruption Frequency Index

t - ton

THD – total harmonic distortion

TV – television

UHD – Ultra high definition

US – universal service

USA – United States of America

WMR – waste management region

2G – second generation mobile communications technology

3G – third generation mobile communications technology

4G – fourth generation mobile communications technology

4K – 4,000-pixel resolution

5G – fifth generation mobile communications technology

SOUR TEAM AND MISSION

03

OUR TEAM AND MISSION

Our mission is to ensure the balancing of the interests of service users and providers independently and reliably by promoting the development of public services.

Our vision is to become one of the most reliable and open public authorities.

The Board is the decision-making body of PUC, which consists of the Chair appointed by the Saeima and four Board members. The Chair and members of the Board are appointed for a five-year term. In 2020, PUC's Board was represented by the Chairman Rolands Irklis and Board members Gatis Ābele, Intars Birziņš, Imants Mantiņš, and Rota Šņuka.

The Board, on behalf of PUC, adopts decisions that are binding for public service providers and users. During 2020, 57 Board meetings took place, in which 278 decisions were adopted. The executive body is subordinated to the Board and performs the functions of the Board's secretariat and experts, preparing documents for consideration at the Board meetings; it also implements the decisions adopted by the Board and the issued administrative acts.

The executive body consists of the executive director, seven departments, including units for each regulated sector and one independent unit. As of 31 December 2020, PUC had 109 employees. During the year, seven new employees joined the team while five left PUC for new challenges.



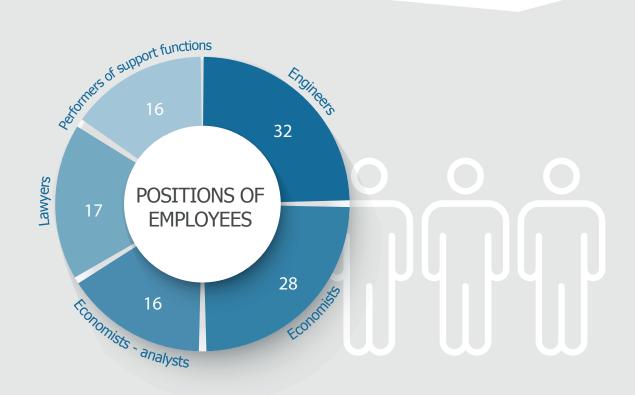
PUC's team on August 11, 2020

AGE OF PUC'S EMPLOYEES 37 33 19 **12** GENTLEMEN < 29 30-39 40-49 50-60 > 60 33% years years





*average age - 44 years





GROSS DOMESTIC PRODUCT

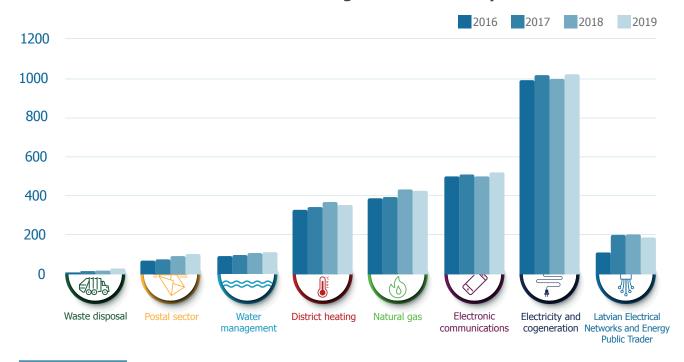
According to the data of the Central Statistical Bureau (CSB), in 2020, due to the economic downturn caused by Covid-19, the gross domestic product (GDP) decreased by 3.6% compared to 2019. GDP at current prices was 29.3 billion EUR last year. In 2019, regulated merchants, whose activities are supervised by PUC, represented the electricity, gas, district heating, water management, electronic communications, postal, and waste management sectors. The share of activities of regulated companies in each of these sectors is different, therefore the published statistical data on the performance of the sectors in general do not always reflect the trends in the activities of the regulated companies.

TURNOVER OF REGULATED SECTORS¹

The net turnover of regulated services, calculated from the report data submitted by the regulated companies, was 2 750 million EUR in 2019 (2% less than in 2018).

Although the overall net turnover has decreased, it has increased in several regulated sectors. In the waste management sector, the net turnover increased by 74.1%. This was mainly due to changes in the Natural Resources Tax Law, which envisages the inclusion of the natural resources tax (NRT) rate for municipal waste disposal in the tariff, which is increasing year by year. The net turnover in the postal sector increased by 12.1%, in the water management sector - by 4.4%, in the electronic communications sector - by 4.1%, and in the electricity and cogeneration sector - by 2.7%. The opposite situation was observed in the heat supply sector, where the net turnover decreased by 3%, while in the natural gas sector the decrease was 1.4%.

Fee-based revenue from regulated services by sector



¹In accordance with the Cabinet of Ministers Regulations No 1227 "Regulations on Regulated Types of Public Services" of 27 October 2009.

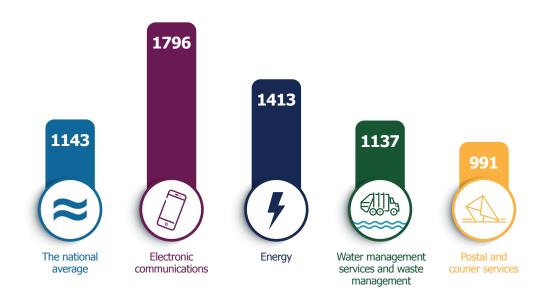
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Remuneration in the regulated sectors

According to the data of the Central Statistical Bureau of Latvia, in 2020, the average monthly gross wage in the electronic communications and energy sectors was higher than the average gross wage in the country - 1143 EUR. Meanwhile, the gross wage was lower in the water and waste management, as well as postal and courier sectors.

Compared to 2019, the average gross wage in the country increased by 6.2%. With the growth of gross wage in the country, wages in the regulated sectors also increased - in the postal and courier sector by 7.0%, in the water services and waste management sector by 6.6%, in the energy sector by 3.4%, and in the electronic communications sector by 4.1%.

Average monthly gross wages in public service sectors in 2020, EUR

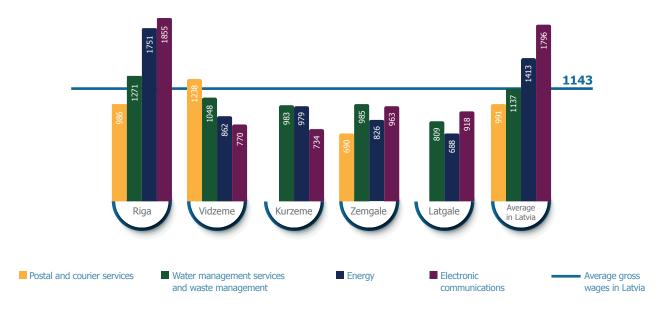


For example, Latgale region still has the lowest gross wages in the energy, water services and waste management sectors². Meanwhile, the lowest gross wage in the electronic communications sector is in the Kurzeme region. Comparing the available data on the postal and courier industry, Vidzeme region has the highest average monthly gross wage compared to the average monthly gross wage in the respective sector in the country and other regions of Latvia.

Compared among regions, the largest variation amplitude of the average monthly gross wage is in the electronic communications sector - 1121 EUR; it was 1063 EUR in the energy sector, while the average gross wage varies less in the water and waste management sector - it ranges within 462 EUR.

² Statistical regions are defined by the Cabinet of Ministers Order No 271 "On the Statistical Regions of the Republic of Latvia and the Administrative Units Included Therein".

Average monthly gross wages in public service sectors in statistical regions in 2020³, EUR



In the Riga region, the average monthly gross wage in almost all public service sectors exceeded the average monthly gross wage in the respective sector in the country. Namely, in the electronic communications sector by 3.3%, energy sector by 23.9%, water services and waste management sector by 11.8%. The exception is the postal and courier sector, where the average monthly gross wage in the respective sector in the country was 5 EUR (0.5%) higher than in the Riga region. In other regions of Latvia, the average monthly gross wage in the electronic communications, energy, water management services and waste management sectors is lower than the average monthly gross wage in the country.

The impact of regulated prices on inflation

According to the CSB data, in 2020, services with regulated prices made up 11.74% of all household expenditures (goods and services in the consumer price index basket). This list includes both public services regulated by PUC and other regulated services which are not supervised by PUC.

³ Data on the average monthly wage in the postal and courier sector in certain regions are not published by the CSB due to their confidentiality.

Administratively regulated prices and consumer price index in 2020

	SHARE IN EXPENDITURES OF RESIDENTS	PRICE INCREASE (2020 XII VS 2019 XII)	INFLATION COMPONENTS (PERCENTAGE POINTS)
PUBLIC SERVICES REGULATED BY THE PUC (natural gas, district heating, general postal services, water supply, sewerage services, waste management4)	6.75%	- 7.1%	-0.48
CITI REGULĒTIE PAKALPOJUMI (kompensējamie medikamenti, pacienta iemaksa, pases nodeva, autostāvvietas, notāra pakalpojumi, pasažieru transports, pirmsskolas vecuma izglītība u.c.)	4.99%	1.3%	0.07
PUBLIC SERVICES REGULATED BY THE PUC AND OTHER REGULATED SERVICES, TOTAL	11.74%	- 3.5%	-0.41
CONSUMER PRICE INDEX (inflation), total	100%	- 0.5%	-0.5

Last year, consumer prices decreased by 0.5% compared to the previous year while administratively regulated prices fell by 3.5%, partly due to the 7.1% decrease of prices of public services regulated by PUC.

Of the services regulated by PUC, the prices of postal services increased the most - by 53%. However, given the low share of postal services in the basket of goods and services, the effect of the price increase on inflation was only 0.016 percentage points. Prices also increased for waste management services - by 0.6% - but they decreased for district heating and natural gas services (by 9.0% and 16.7%), while prices for water supply, sewerage services and fixed telephone services remained unchanged. Prices for electricity services⁵ decreased by 2.7%.

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 the HHI value is smaller than 0.18, but larger than 0.1, such a market may be regarded as moderately concentrated. The HHI value above 0.18 indicates that the market is concentrated.

⁴ PUC regulates only part of the waste management sector - waste disposal at landfill sites.

⁵ The CSB does not classify prices for electricity services as administratively regulated.

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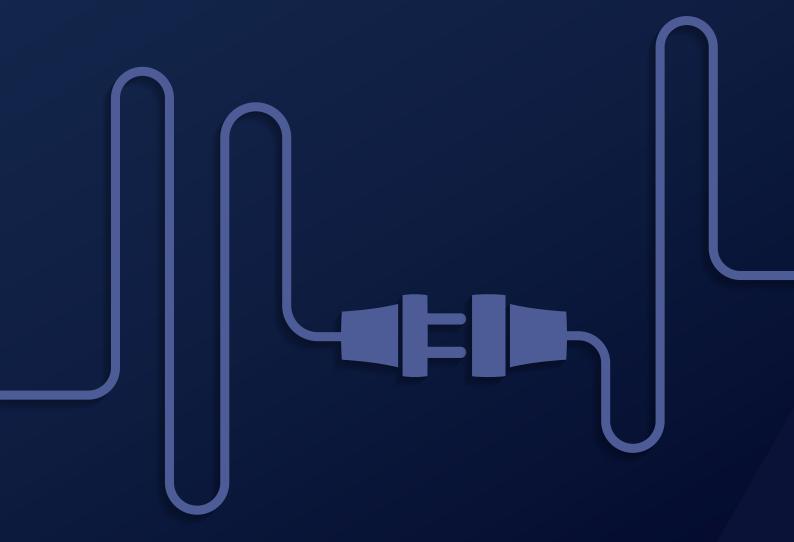
The market in the electronic communications sector can be considered moderately concentrated in previous years – in 2019 the index value remained at last year's level – 0.168. The market concentration for postal services is rather stable with a trend to decrease slightly and it reached 0.183 in 2019. The market is still considered concentrated.

The index value for electricity trade was 0.375 which means that the electricity trade is still considered a very concentrated market. The natural gas trade market is also considered very concentrated although a decreasing trend was observed reaching 0.594 in 2019.

	SECTOR	2014	2015	2016	2017	2018	2019
	ELECTRONIC COMMUNICATIONS	0.163	0.156	0.160	0.164	0.168	0.168
7	POST	0.317	0.305	0.268	0.257	0.232	0.183
	ELECTRICITY TRADE	0.685	0.670	0.609	0.532	0.406 ⁶	0.375
6	NATURAL GAS TRADE	A	A	A	0.874	0.767	0.594

⁶ The calculation of the HHI for 2018 and 2019 has been adjusted for the share of JSC Latvenergo wholesale electricity revenues.

O SECTRICITY





FACTS AND FIGURES





Electricity price for households



Electricity price for **corporate users**



The price of electricity on the power exchange **in certain hours**



23% lower average value of mandatory procurement companent was confirmed



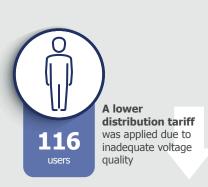
Most complaints



electricity supply



connection





New transmission tariffs



variable part of the tariff



fixed part of the tariff



New tariffs of JSC Augstsprieguma tīkls were approved; record low electricity prices in the first half of the year, growing interest in the power exchange and fixed prices

REGISTRATION, LICENSING AND SUPERVISION OF MERCHANTS

The number of service providers in the electricity sector is growing

Five types of services are regulated in the electricity sector in Latvia:



Electricity transmission and distribution services may be provided only by licensed service providers. The transmission service according to tariffs approved by PUC is provided by one system operator, while the distribution service is provided by 10 system operators; PUC has approved distribution system service tariffs for six of these operators.

Electricity generation, trade, and demand response service¹ may be provided by registered service providers which provide the service at the market price or, in the case of mandatory procurement, at the price specified in regulatory enactments. Last year, 69 active electricity producers were included in the PUC Producers' Register, three new electricity producers were registered during the year, and four electricity producers ceased operations. Meanwhile, 41 electricity traders were registered in the Traders' Register, of which 28 had started trading in electricity. During the year, 10 new traders were registered and six were excluded from the Register because they did not start their operations. Two aggregators were registered in 2020.

Supervision of the transmission system operator

Electricity transmission in Latvia is performed by the transmission system operator JSC Augstsprieguma tīkls. In 2013, PUC certified JSC Augstsprieguma tīkls and appointed it as an independent operator. PUC annually assesses whether the system operator complies with the certification requirements.

¹ Demand response service - reduction or increase of electricity users' consumption in a certain period in response to the market demand and supply ratio. Namely, an aggregator can change the consumption of the user, thus promoting changes in aggregate demand and prices in the market, while providing benefits to the users.

After evaluating the report received from the system operator, PUC concluded that the measures taken in 2019 to ensure independence are sufficient and JSC Augstsprieguma tīkls meets all certification requirements:



- The shareholder of JSC Augstsprieguma tikls the Ministry of Finance is neither a direct nor indirect shareholder of the electricity system owner JSC Latvijas elektriskie tikli or a shareholder of merchants engaged in electricity generation, trade, and distribution.
- The person who appoints members of the Supervisory Council or Management Board of JSC Augstsprieguma tīkls neither directly nor indirectly appoints the members of the Supervisory Council or Management Board of JSC Latvijas elektriskie tīkli or such merchant which is engaged in electricity generation, trade, and distribution.
- The same person may not simultaneously hold the position of the member of the Supervisory Council or the Management Board in JSC Augstsprieguma tīkls and in a capital company engaged in electricity generation, trade, or distribution.

At the same time, PUC also evaluated the independence of the electricity system owner JSC Latvijas elektriskie tīkli and concluded that the measures taken by JSC Latvijas elektriskie tīkli to ensure independence in 2019 were sufficient. Until now, JSC "Latvijas elektriskie tīkli" was the owner of the electricity system, which owned the assets of the Latvian electricity transmission system (330 kV and 110 kV power transmission lines, substations and distribution points). Last autumn, the process of complete unbundling of the system operator was completed, as a result of which JSC Latvijas elektriskie tīkli was merged with JSC Augstsprieguma tīkls. In the future, supervision and management of the assets of the transmission networks will be performed by the transmission system operator JSC Augstsprieguma tīkls.

JSC "Augstsprieguma tīkls" development plan - what benefits are expected for Latvia?

PUC annually approves the ten-year development plan of JSC Augstsprieguma tīkls and monitors its implementation. The plan includes 147 development projects (worth 405 million), which JSC Augstsprieguma tīkls plans to implement from 2021 to 2030.









One of the most significant projects of the plan is the integration and synchronization of the Baltic electricity transmission system with the European networks. In the first phase of the project, several projects are to be implemented in Latvia, including the reconstruction of power transmission lines between Latvia and Estonia in the section Valmiera – Tartu and Valmiera – Tsirgulina.



As a result of the project, the interconnection capacity will increase, which will significantly enhance the throughput of the transmission network for electricity supply. EU co-financing will account for 75% of the total project costs. The development plan also envisages the purchase and installation of equipment necessary for synchronisation. The plan also includes projects to stop the aging of transmission networks by ensuring safe operation of the transmission system.

Supervision of the distribution system operator

In Latvia, the electricity distribution service is provided by 10 distribution system operators (each in their own territory), to which PUC has issued licenses. JSC "Sadales tīkls", whose license expires on June 30, 2027, supplies power to 99% of electricity users.

There is a vertically integrated electricity supply company in Latvia - JSC Latvenergo, whose subsidiaries are engaged in the electricity generation, trade, and distribution. Considering that JSC "Sadales tīkls" is a part of the mentioned vertically integrated company, PUC assesses the compliance of JSC "Sadales tīkls" with the independence requirements. The operation of JSC Sadales tīkls must be separated from electricity generation, transmission, and trade. PUC assessed the system operator's report and concluded that, in 2019, the system operator had taken the necessary measures to ensure independence from electricity generation, transmission, and trading activities. At the same time, JSC Sadales tīkls has ensured equal conditions for access to the distribution system for all electricity market participants.

PUC concluded that the members of the Board of JSC Sadales tīkls have not participated in the structures of JSC Latvenergo. The members of the Board of JSC Sadales tīkls are granted the rights irrespective of JSC Latvenergo to make decisions regarding the assets necessary for the operation, maintenance, and development of the distribution system.

Last year, PUC approved regulations according to which the system operator JSC Sadales tīkls will have to develop a ten-year development plan. The plan must include information on innovation, planned investments and financial investments.

CROSS-BORDER INTEGRATION AND DEVELOPMENT



The next steps have been taken to synchronize the Baltic electricity system with Europe

Synchronization of the Baltic electricity system with Europe

In 2025, it is planned to connect and synchronize the electricity systems of the Baltic States with the European electricity systems. To achieve this goal, it is necessary to implement several infrastructure projects in the Baltic States.

In the first phase of the project, the power transmission network of the Baltic States will be strengthened, and parts of the equipment will be installed. The second phase of the project envisages the construction of Harmony Link (between Poland and Lithuania), which will provide additional direct current for the interconnection. At the same time, the construction of Harmony Link will strengthen the electricity transmission infrastructure between the two countries. At the same time, modern and efficient inertia equipment (stationary synchronous compensators) and frequency control (energy storage batteries) will be purchased and installed.

Already in 2019, PUC approved the allocation of investment costs for the second phase projects between the transmission system operators of the Baltic States and Poland. In 2019, the maximum possible EU co-financing - 75% - was granted to the Baltic synchronization project.

Prohibition on the supply of electricity generated by the Astravyets NPP

In 2020, the Baltic States decided that it was necessary to suspend electricity trade with Belarus if the Astravyets nuclear power plant became operational. There were risks to compliance with international nuclear safety standards at the afore-mentioned nuclear power plant. It was therefore decided to amend the methodology² by excluding trade in electricity from Belarus from aggregate trade with third countries.

PUC and the Estonian regulator expressed support for the "Transmission Capacity Calculation and Allocation Methodology with Russia" jointly developed by the Baltic electricity transmission system operators. To ensure that electricity flows from Belarus do not transit to the Baltic States through Russia, JSC Augstsprieguma tīkls is obliged to request a proof of origin from the Russian side. The methodology was introduced at the start of operation of the Astravyets nuclear power plant in late 2020.

² Regulations, conditions and methodology for calculation and allocation of interconnection capacity with third countries.

Electricity network codes and guidelines



In 2020, work continued on the implementation of the requirements of the EU electricity network codes and guidelines. Several institutions were involved in this process, including PUC in cooperation with EU Member States' regulators and transmission system operators, as well as nominated electricity market operators and the EU Agency for the Cooperation of Energy Regulators (ACER).

In 2020, PUC adopted six decisions regarding the methodologies and regulations set out in the network codes and guidelines.

SERVICE PRICES AND TARIFFS

Lower electricity prices; for the first time in history, they were negative during some hours

Retail electricity market: prices and contracts

Last year, the price of electricity on the Nord Pool exchange reached the lowest level since the launch of the exchange in Latvia in 2013. For the first time in history, the price of electricity on the exchange was negative in some hours, which provided a premium for the consumed electricity to users who have a smart electricity meter installed in their facility and who had chosen to pay for the consumed electricity in accordance with the exchange price, reducing the total electricity payment accordingly.

Wholesale electricity prices decreased significantly in 2020 compared to 2019, due to lower electricity consumption in the Baltic and Scandinavian regions due to restrictions imposed by Covid-19, as well as favourable conditions for renewable electricity generation.

Changes in power exchange prices also reduced prices at the retail level. In the retail market, the decrease was less pronounced, as the application of the reduced price was largely hampered by existing medium-term contracts (fixed prices from one to two years).

Elektroenerģijas cenu dinamika



Contract structure for household users



There are three types of contracts available to households: universal service, a fixed price contract with a fixed price for one or more years, a variable price contract with an exchange-linked electricity price.

At the end of 2020, 57.63% of households used a fixed price contract and 14.55% of households used a variable price contract, while the share of the universal service decreased to 27.83%. In general, interest in the universal service is declining year by year.



TARIFFS, TARIFF CALCULATION METHODOLOGIES AND TARIFF CHANGES

New tariffs of JSC Augstsprieguma tīkls were approved; significant changes for sector regulation

Last year, changes were made to two methodologies for system service tariff calculation in the electricity sector. At the same time, new mandatory procurement components for 2021 were approved, as were tariffs for JSC Augstsprieguma tīkls' electricity transmission system service, which entered into force on 1 January 2021.

Methodology for calculation of mandatory procurement and capacity components

The methodology was amended in accordance with the amendments to the Electricity Market Law. In accordance with the methodology, JSC Energijas publiskais tirgotājs calculates the mandatory procurement and capacity components and submits them to PUC for evaluation. The new amendments stipulate that JSC Energijas publiskais tirgotājs shall adjust the costs arising from the purchase of electricity within the framework of mandatory procurement, due to the part of the revenue that will be obtained from the sale of proof of origin. A proof of origin is a document that proves the amount of electricity produced from renewable energy sources or high-efficiency cogeneration.

Methodology for calculation of electricity transmission system service tariffs



The amendments to the methodology ensure a unified approach to the calculation of tariffs for all system operators in Latvia, as well as incorporate elements of incentive regulation to promote more efficient operation of the transmission system operator.

The methodology used a new approach for calculating tariffs - the allowable revenue cap approach. Given that part of the transmission system operator's costs does not depend on the system operator, such as the price of electricity losses or changes in inflation, this approach is the most appropriate. This method ensures tariff stability, as part of the cost increase can be offset by other cost reductions that will not necessitate a tariff revision.

At the same time, as in the case of electricity producers whose power plants are connected to the distribution system, the methodology provides that electricity producers whose power plants are connected to the transmission system shall also contribute to covering the costs of the transmission system.

Electricity transmission system service tariffs

According to the new methodology, JSC Augstsprieguma tīkls submitted a new tariff proposal. Transmission system service tariffs came into force on 1 January 2021. The new tariffs reduce the charge for the volume of electricity transmitted or the variable part of the tariff by an average of 43%. However, depending on the type of connection of the system user, the charge for the installed capacity has been increased by 27% on average. For those system users who use their installed capacity efficiently, costs are reduced.

Initially, the increase in the fixed charge was planned to be higher. However, a decrease in the fixed part was achieved due to lower profit rates approved by PUC, because of which the capital costs of JSC Augstsprieguma tīkls decreased by 9.4 million EUR or by 21.5% compared to the current tariff calculation.

For the first time, PUC also approved the electricity producer's tariff, which is paid by the electricity producer according to the installed capacity of the power plant. Thus, it is ensured that there is neither positive nor negative discrimination between producers whose facilities are connected to the distribution or transmission system.





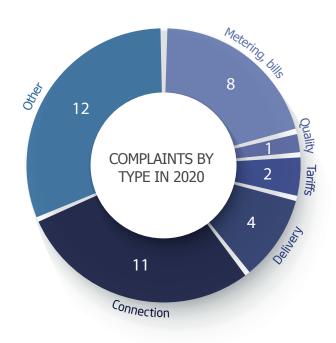
The number of complaints has increased; electricity supply and connection issues are still a point of contention

User protection

Last year, PUC responded to 38 complaints, which is 27% more than in 2019. Of the complaints submitted, 29 were unfounded, eight did not fall within the competence of PUC, and one was justified. The increase in the number of complaints could be related to the Covid-19 emergency and the imposed restrictions, as most of the companies stopped providing face-to-face consultations, which increased the workload of the call centres. Many users complained to PUC because of difficulties in contacting the service provider.



Compared to 2019, the reasons for complaints have not changed significantly. In 2020, the largest number of complaints was received regarding electricity supply and connection issues. The objections were mainly related to the costs and procedures for setting up a connection. In general, there were also disagreements on other issues - contract conditions, change of trader or user, change of the connection load, etc.



PUC does not review complaints about losses, payment documents, debt collection, as well as about the contractual relationship between the user and the sub-user. The user should contact the service provider about these issues or, if this cannot be resolved through cooperation, the next choice is to go to court.

PUC also worked on user protection last year. The regulations on billing information were amended, in addition to the above, information will be available on the share of electricity supplied by the electricity trader from Latvian producers, by foreign traders and the share of electricity purchased on the exchange, as well as the share of the total volume supplied to user consisting of electricity produced from renewable and fossil resources.

SUPERVISION OF ENERGY SUPPLY FACILITIES

Inspections of electricity supply companies

PUC carries out the control of the facilities of electricity supply companies (system operators and electricity producers) to verify the impact of a facility on the security of electricity supply. PUC carried out the control of the compliance of 19 companies' facilities, during which 45 facilities were inspected.

During the inspections, 64 non-compliances were found - 84% of the total inspections. 24 non-compliances were corrected in 2020, the remaining non-compliances according to PUC's instructions were eliminated in the first quarter of 2021 or will be eliminated during 2021.



The highest number of non-compliances (29 cases) was found in the operation of electrical installations which was also one of the most common cases of non-compliance in 2019.

Most of the shortcomings 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 PUC.

Service quality

In 2020, compared to 2019, the duration and number of planned and unplanned electricity supply outages have not changed significantly. Electricity supply reliability depends on power outages and voltage drops.

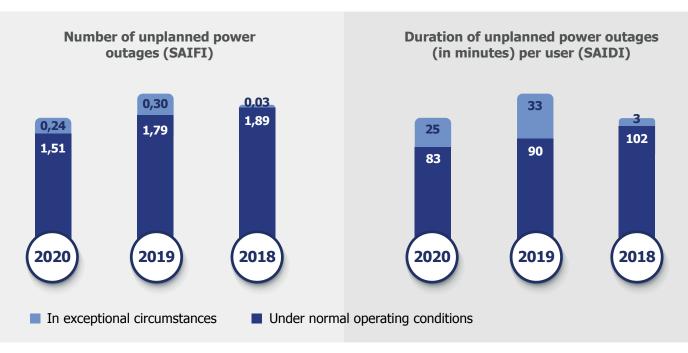


It is the task of the system operators to minimize outages with the least possible investment. In the current monopoly situation of distribution networks, PUC's task is to control this process so that the system operator ensures the security of electricity supply to the users at economically justified costs.

Security of electricity supply is measured by the number and duration of power outages. The security of electricity supply also depends on the proper operation of power supply facilities.



The number of planned power outages was less than one, and their duration was less than two hours. This means that there were some Latvian users who had their electricity supply temporarily suspended at the facility, while others have not encountered this.



Unplanned power outages per user occurred on average one and a half times and lasted slightly longer than one hour.



The indicators of the duration of both planned and unplanned outages have stabilized, which indicates that the resources invested by the system operator in the reconstruction and maintenance of the distribution network infrastructure are adequate to maintain the achieved security of supply and duration of unplanned outages. The quality of the distribution service in Latvia is similar to such European countries as Sweden and the Czech Republic.

Voltage and power supply quality

Non-compliances with the voltage values specified in the Standard³ were found in 21 cases. "Flicker" was mostly detected (20 cases), harmonic distortions for individual harmonics were detected in only two cases, but non-compliance with the voltage value - in four cases, while voltage asymmetry was observed once.

Most of these non-compliances with quality requirements were found in rural areas due to the continued use of power lines, built in the 1970s and designed for light loads (\sim 1 kW) which was sufficient at the time. The capacity of modern electrical equipment is insufficient for the cross-section of these lines.

Share of non-compliances in measurements



Compliant with standard Non-compliant with standard Total distortion coefficient of the supply voltage sinusoid Users are entitled to pay half the tariff for the distribution system service for inadequate voltage quality. During 2020, the reduced tariff was applied for 116 users, including 12 users for whom the Regulator had performed voltage quality measurements. At the end of the reporting period, the reduced tariff was applied for 526 users which is 2% more than in 2019. This demonstrates that the system operator continues improving the quality of the electricity supply service which has significantly improved last year.



³Standard LVS EN 50160: 2010 "Voltage characteristics of public electricity supply networks", which is determined as mandatory by the Cabinet of Ministers Regulations No 759 "Regulations on Voltage Requirements of Public Power Supply Networks".



PRIORITIES AND CHALLENGES FOR 2021

DETERMINATION OF ECONOMICALLY REASONABLE PRICES

- Development of investment monitoring of electricity transmission and distribution systems to ensure more efficient use of existing infrastructure, stimulation of cost efficiency and sustainable development of the system.
- Reassess the need for hedging instruments (instruments to help hedge against cross-border price difference risks). The hedging instrument reflects the needs of market participants in the Baltic capacity calculation region and promotes the development of the electricity market by ensuring the predictability of electricity prices.

PROMOTING THE ACCESSIBILITY OF SERVICES

- Review of licensing areas, operational processes and applied tariffs for small electricity distribution system operators to ensure the same set of services and quality for all electricity users.
- Education of electricity end-users to promote end-user involvement in the electricity sector and strengthen end-user skills.

ENSURING APPROPRIATE QUALITY

• Development of service quality regulations for electricity transmission and distribution system operators to set minimum requirements that meet current user needs.

IMPROVING THE EFFICIENCY OF PUC

• Optimization of the certification and independence monitoring process to balance the PUC workload and reduce the administrative burden on system operators.

Contraction of the contract of







FACTS AND FIGURES



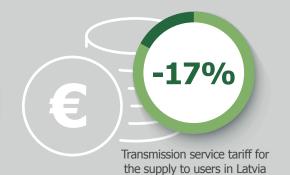
Natural gas price for households (at the end of year)

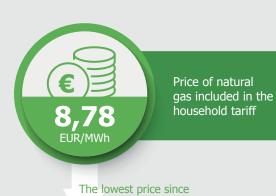
OVER THE YEAR -37,8%



Natural gas price for corporate users (at the end of the year)

OVER THE YEAR -30,2%





the market was opened in **2017**



On January 1, 2020, the single natural gas market of Finland, Estonia and Latvia became operational

No transmission tariff is applied for the transportation of natural gas between these countries





REGISTRATION AND SUPERVISION OF COMPANIES

JSC "Gaso" must take additional measures to ensure independence requirements

In the natural gas sector in Latvia, four types of regulated services are provided:



Only licensed service providers may provide natural gas transmission, storage, and distribution services. In Latvia, one system operator provides both transmission and storage services, and one system operator is responsible for providing the distribution service. Both system operators provide services at tariffs approved by PUC.

Natural gas can be traded by registered service providers which provide the service at a market price, not a regulated price, while a regulated natural gas price is available to household users (if they have not chosen a market offer) – a captive user tariff.

Last year, 29 natural gas traders were listed in the PUC Traders' Register, of which 19 had started trading in natural gas. The number of natural gas traders in 2020 has increased by 31.8%.

Registered traders represent Latvia, Lithuania, Estonia, Norway, and the Czech Republic. During 2020, ten new merchants were registered, while three were excluded from the Register.

Supervision of the transmission system operator

Natural gas transmission in Latvia is performed by the transmission system operator JSC Conexus Baltic Grid. In 2018, PUC certified JSC Conexus Baltic Grid under some conditions, the deadline of which was set for January 1, 2020. PUC instructed the system operator to ensure that the natural gas trader JSC Gazprom cannot exercise direct or indirect control over the system operator JSC Conexus Baltic Grid. At the same time, the system operator had to avoid the risks of conflict of interest caused by the simultaneous participation of Marguerite Gas I and Marguerite Gas II in both JSC Conexus Baltic Grid and the natural gas trader JSC Latvijas Gāze.



These conditions were not met in time, but PUC had information that actions had been taken to comply with them. Consequently, in April 2020, PUC issued a warning to JSC Conexus Baltic Grid, obliging it to ensure the compliance of the system operator with the independence requirements specified in the Energy Law by 1 October 2020. Following the completion of the change of shareholders of JSC Conexus Baltic Grid in October 2020, JSC Conexus Baltic Grid fully complied with all the established certification and independence requirements.

Monitoring the independence of the distribution system operator

JSC Latvijas Gāze is a vertically integrated energy supply company in Latvia whose subsidiaries are engaged in natural gas trade and provision of the distribution service. Considering that JSC Gaso is a part of this vertically integrated merchant, PUC assesses the compliance of JSC Gaso with the independence requirements. PUC evaluated the system operator's report and concluded that JSC "Gaso" has a visible risk of discriminatory behaviour in favour of the vertically integrated natural gas merchant JSC Latvijas Gāze.

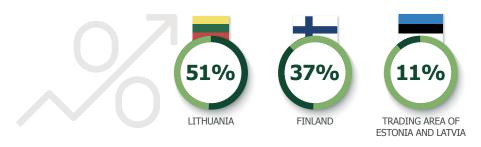
PUC acknowledged that the measures taken by JSC Gaso to ensure independence are sufficient in the part that concerns the independence of JSC Gaso and its council and board members from the vertically integrated energy supply company. PUC instructed JSC Gaso to ensure that the obligations of the employees and measures specified in the compliance program do not allow discriminatory actions, and to ensure proper control over the implementation of the compliance program.

CROSS-BORDER INTEGRATION AND SYSTEMS DEVELOPMENT

A unique pan-European process for creating a single market for natural gas has been completed, starting operations on 1 January 2020

On 1 January 2020, the single natural gas market of Finland, Estonia and Latvia (FinEstLat) started operating - a single natural gas transmission entry-exit system with a single entry tariff zone and two balancing zones.

As a result of the establishment of the FinEstLat natural gas market, the activity of market participants increased significantly. For example, in 2020, the total volume of natural gas sold on the GET Baltic natural gas exchange reached the highest level - 7207 GWh, while the turnover increased 2.5 times compared to 2019. More than 11% of the total demand of the Baltic and Finnish countries was traded on the stock exchange. 51% (3687 GWh) of the total amount of natural gas sold on the exchange was sold in Lithuania, 37% (2696 GWh) in Finland and 11% (824 GWh) in the single trading area of Estonia and Latvia.





At the same time, the launch of the single FinEstLat natural gas market has stimulated interest in using the natural gas storage service. In 2020, the capacity of the Inčukalns underground gas storage facility was booked fully (100%) - 21.5 TWh.

Until now, storage capacity was booked by submitting a storage capacity product application to the system operator. To ensure the greatest possible transparency and non-discrimination of the storage capacity booking process, PUC approved new conditions of use for the Inčukalns underground gas storage facility. The reservation of storage capacity will henceforth be made through an auction procedure, which is also widely used elsewhere in Europe. Auctioning is the most efficient way to ensure a transparent reservation of storage capacity due to particularly high demand for natural gas storage services.

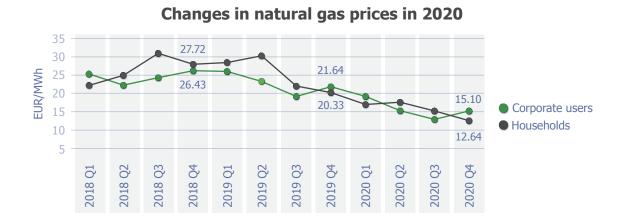
In April 2020, the Finnish, Estonian, Latvian and Lithuanian Ministries of Energy, regulators and transmission system operators agreed on a roadmap for the integration of the Finnish, Estonian, Latvian, and Lithuanian regional gas markets, aiming at the timely establishment of the Baltic and Finnish natural gas market by merging the FinEstLat natural gas market with the Lithuanian natural gas market. Continuing the work on the four-country natural gas market model, in October 2020, PUC signed a memorandum of understanding between the regulators of Latvia, Finland, Estonia and Lithuania on the promotion of cooperation and coordination. The tasks set out in the Memorandum will be carried out by a separate working group of the four regulators.

SERVICE PRICES

In 2020, the price of natural gas reached its lowest level since the opening of the natural gas market

Natural gas retail market: prices

In 2020, the price of natural gas reached the lowest level since the opening of the natural gas market in 2017. The weighted average price of natural gas for households in the fourth quarter of last year reached 12.64 EUR/MWh; the price was 12.99 EUR/MWh for corporate users in the third quarter of last year. The decrease in prices is due to changes in natural gas prices on world markets, which were affected by relatively warm winter weather, which led to lower natural gas consumption, as well as a slowdown in global economic activity due to Covid-19. At the end of 2020, with the start of the heating season and the rise in prices on world markets, the weighted average price of natural gas increased to 15.10 EUR/MWh.





Corporate users mostly concluded natural gas trade contracts with a variable price - 69.83% of the users. At the end of 2020, 96.78% of households used fixed price contracts, including paying for natural gas at the captive users' price for natural gas, which is reviewed semi-annually.

TARIFFS, TARIFF CALCULATION METHODOLOGIES AND TARIFF CHANGES

Lower natural gas transmission tariff to supply users in Latvia

In 2020, PUC approved a new methodology for calculating tariffs for natural gas distribution system services and a methodology for calculating tariffs for natural gas storage system services. With the approval of these methodologies last year, the process of introducing a common tariff calculation approach in the energy sector, which will be applied to all system services, was completed.

Methodology for calculation of natural gas distribution and storage system service tariffs

Given that part of the costs of the distribution and storage system operator may change due to external, independent reasons, such as the price of natural gas losses and inflation, the PUC system service tariff calculation methodologies stipulated that the distribution system service and storage system service tariffs will be calculated according to the "allowed revenue cap" method. This method will ensure tariff stability throughout the regulatory period (two to five years), as part of the cost increase can be offset by other cost reductions. This will provide a more transparent and predictable operating environment for system operators and system users. The methodologies also incorporate elements of incentive regulation to facilitate more efficient operation of natural gas system operators.

Natural gas distribution system service tariffs

Taking into account the changes in consumption of each user group, at the end of 2019, JSC Gaso made adjustments in the calculation of natural gas distribution system service tariffs. PUC verified the calculations and found them to be justified. Natural gas distribution system service tariffs came into force on 1 January 2020. The tariff adjustment was applied only to the variable part of tariffs for users without seasonal natural gas consumption. The fixed part of the tariffs remained unchanged.

In line with the changes, the variable share of tariffs for non-seasonal natural gas consumers increased slightly, while for other user groups it decreased. Despite changes in distribution system service tariffs, the final price for natural gas users was not significantly affected. This happened because the price of natural gas decreased during the last six months, as did the transmission system service tariff for the supply of Latvian natural gas users.

In September 2020, JSC Gaso submitted to PUC a new tariff proposal for natural gas distribution system service. This tariff proposal was submitted by the system operator in accordance with the methodological changes, which envisage setting tariffs for the regulatory period (2021–2025).

Natural gas storage service tariffs



Maximum value of the bundled capacity product at the end of the pumping season for the 2020/2021 storage cycle reached 0.694260 EUR/MWh/storage cycle, which was 16% lower than in the previous storage cycle. Tariffs for storage services for other storage capacity products were as follows:

- the minimum value of the market product 0.92000 EUR/MWh/storage cycle;
- two-year bundled capacity product 2.84741 EUR/MWh/two storage cycles;
- virtual reverse-flow product 0.32200 EUR/MWh/storage cycle.

The approved tariffs were applied from 1 May 2020, which had a positive effect on household payments for natural gas from 1 July 2020.

In October last year, JSC "Conexus Baltic Grid" submitted a new tariff proposal for natural gas storage system service, which was calculated for the regulatory period from 2021 to 2025. Storage system service tariffs for the afore-mentioned regulatory period were approved on 1 March 2021.

Natural gas transmission system service tariffs

From 1 January 2020, the natural gas transmission system service tariffs of JSC "Conexus Baltic Grid" approved in 2019 are in force. With the approval of the tariffs, a unique process at the European level was completed - the creation of a single natural gas market, which started operating in Latvia, Estonia, and Finland on 1 January 2020.

In the single FinEstLat natural gas transmission entry-exit system, transmission system service tariffs are not applied at interconnection points for the transportation of natural gas between Latvia, Estonia, and Finland. This means that the tariff is applied once when natural gas is imported into the single FinEstLat transmission entry-exit system, and it is the same at all entry points of the unified system.

From 1 January 2020, the natural gas transmission system service tariff for the supply of Latvian users decreased by 17%. The tariff decreased due to a significant reduction in the costs associated with the auction for the storage and availability of active natural gas in the storage facility. The auction was held to ensure the necessary withdrawal capacity of the Inčukalns underground gas storage facility in the event of an emergency in the country. Other tariffs for transmission capacity products shall remain unchanged until 30 September 2022.

From 1 January to 30 September 2020, the tariff was 2.1096 EUR/MWh, while from 1 October to 30 September 2021 (gas year) - 2.005 EUR/MWh.

Natural gas transmission system service tariffs for supply of Latvian users





Tariff for captive users of natural gas (households)

Until the approval of a new tariff proposal, the tariff for captive users of natural gas is determined in accordance with the decision of PUC¹. The tariff is reviewed twice a year until the 10th day of the last month of the semester. In the first half of 2020, the final natural gas tariffs were set at the natural gas trade price of 12.15 EUR/MWh. In the second half of the year, tariffs were set in accordance with the natural gas trade price of 8.78 EUR/MWh. In 2020, the price of natural gas was the lowest since the opening of the natural gas market.

Natural gas prices at which the tariff for captive users is determined



SUPERVISION OF SERVICE QUALITY

Most users complained about the invoices they received

User protection and review of applications

In 2020, PUC received 21 complaints about natural gas supply issues, which is one complaint more than in 2019. Of these, 17 were unjustified, one was justified and three did not fall within the competence of PUC.

Decision No 247 "On natural gas supply tariffs of the joint stock company Latvijas Gāze" of 24 July 2008.



Received complaints



Most users have complained about invoices received and questions about natural gas supply. Compared to 2019, the number of complaints about invoices has increased by 62%. Often users had asked PUC to cancel the invoice issued to them or to change the invoice amount. PUC does not deal with payment documents and PUC has no right to cancel invoices or oblige the service provider to cancel invoices. JSC Latvijas Gāze, JSC Gaso, and JSC Latvenergo were the most complained about companies.



SUPERVISION OF ENERGY SUPPLY FACILITIES

The duration of natural gas interruptions per user is decreasing

Supervision of the transmission and distribution system operator

PUC has performed two operational compliance checks of natural gas transmission facilities, in which 30 JSC Conexus Baltic Grid's facilities were inspected. The inspections revealed six deficiencies related to the operation and documentation of the facilities. The system operator must eliminate the non-compliances by 2021.

In relation to the inspections of JSC Gaso, PUC performed two compliance checks, during which 28 objects were inspected. One non-compliance related to gas pipeline grounding regulations was identified. JSC Gaso is obliged to eliminate the deficiency within the deadline set by PUC.





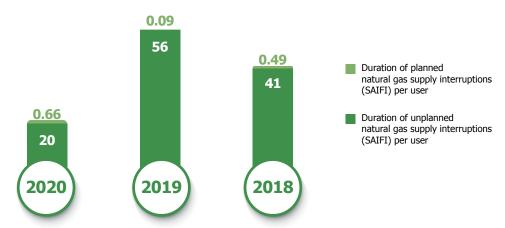
In 2020, the number of planned natural gas supply interruptions (SAIFI) per user in the natural gas distribution system was 0.33; the duration (SAIDI) was 20 minutes.

The number and duration of unplanned interruptions in the supply of natural gas per user is small. In turn, the time for resumption of natural gas supply after unplanned interruptions (CAIDI) in 2020 was 295 minutes or less than five hours. This indicator has deteriorated in 2020 compared to 2019.

The number of planned natural gas supply interruptions (SAIFI) per user



Duration of planned natural gas supply interruptions (SAIFI) per user²



² Information submitted by JSC Gaso.

PRIORITIES AND CHALLENGES FOR 2021



DETERMINATION OF ECONOMICALLY REASONABLE PRICES

- Development of investment monitoring of natural gas transmission and distribution systems to ensure more efficient use of existing infrastructure, promotion of cost efficiency and sustainable development of the system.
- Preparations for the establishment of a single natural gas transmission entry-exit system in Finland and the Baltic States in 2024, ensuring further integration of the natural gas market in the region.

ENSURING APPROPRIATE QUALITY

 Development of service quality regulations for natural gas transmission and distribution system operators to set minimum requirements that meet current user needs.

• IMPROVING THE EFFICIENCY OF PUC

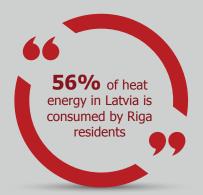
Optimization of the certification and independence monitoring process to balance the PUC workload and reduce the administrative burden on system operators.

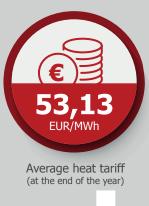
DISTRICT HEATING





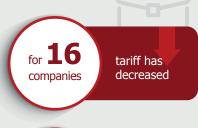
FACTS AND FIGURES







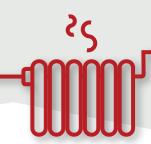






The average price of wood chips in Latvia







REGISTRATION AND SUPERVISION OF COMPANIES

The number of heat supply companies is decreasing

In the heat energy sector in Latvia, three types of regulated services are distinguished:



Heat energy transmission and distribution – PUC supervises service providers which supply more than 5000 MWh/year to users. A regulated service can be provided only by licensed service providers, and the price of services is regulated (fixed tariff). At the end of 2020, 72 licensed service providers had been registered, seven licenses were amended, and three licences were revoked because they did not comply with the regulatory criteria.

Heat energy trade – PUC supervises merchants which sell heat energy that is transmitted through the heating networks of a regulated merchant. In most cases heat energy trade is carried out by merchants which are simultaneously licensed as heat transmission and distribution operators. At the beginning of last year, 70 merchants were listed in the PUC Traders' Register. In 2019, two new merchants were registered, while three merchants were excluded from the Register.

Heat energy generation – PUC monitors service providers which supply more than 5000 MWh/year to the district heating system and whose total installed capacity exceeds 1 MW. At the end of the year, there were 126 regulated heat producers in Latvia. Two new ones were registered during the year, but six were excluded. According to the changes in the regulation, PUC excluded from the Register those companies which do not transfer the produced heat energy to the district heating network.

SERVICE COSTS

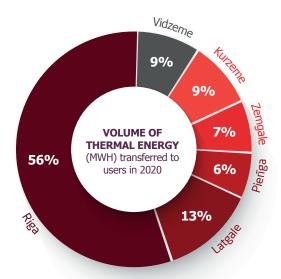


Woodchip prices are decreasing in the regions of Latvia

Description of heat supply service costs

Description of the sector

The district heating sector is fragmented. 56% of heat energy in Latvia is consumed by the residents of Riga (service provider JSC Rīgas Siltums). The eight largest cities in terms of heat energy consumption - Riga, Daugavpils, Liepāja, Jelgava, Ventspils, Jūrmala, Rēzekne, Valmiera - consume about 80% of the total heat produced in Latvia.

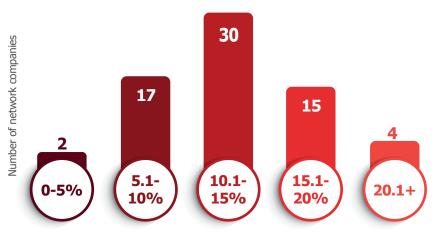


Due to the relatively warm 2019/2020 winter, in 2020, the share of losses in heat supply networks slightly increased. Assessing the year 2020, it can be concluded that the losses of most heat supply companies were in the range of 10-15%. At the same time, there are still several companies whose network losses exceed the amount specified in the regulatory framework 1 – 17%. PUC has requested clarification on the identified discrepancies and invited to submit proposals to reduce the level of losses.

¹ Regulations of the Cabinet of Ministers No 243 "Regulations on Energy Efficiency Requirements for District Heating Systems Possessed by a Licensed or Registered Energy Supply Merchant and Procedures for Verification of Their Conformity" of 19 April 2016.





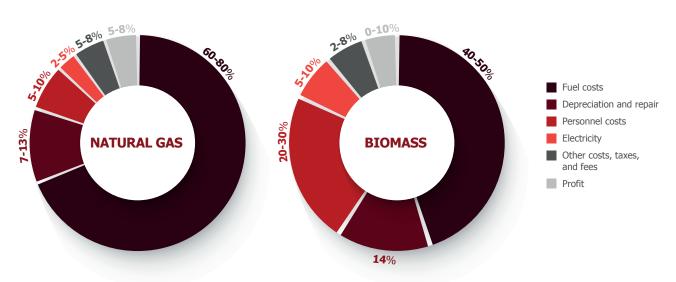


Extent of network losses

Fuel price characteristics

Differences in tariffs in the residential areas of Latvia are influenced not only by the typological conditions of the network, the density of district heating connections, but also the type of fuel used - natural gas, biomass. Under normal market conditions, woodchips provide the opportunity to produce heat cheaper than using natural gas. Differences are possible if a merchant uses natural gas to produce heat in electricity cogeneration and simultaneously receives the state support for electricity production within the framework of mandatory procurement.

Cost structure of heat energy generation



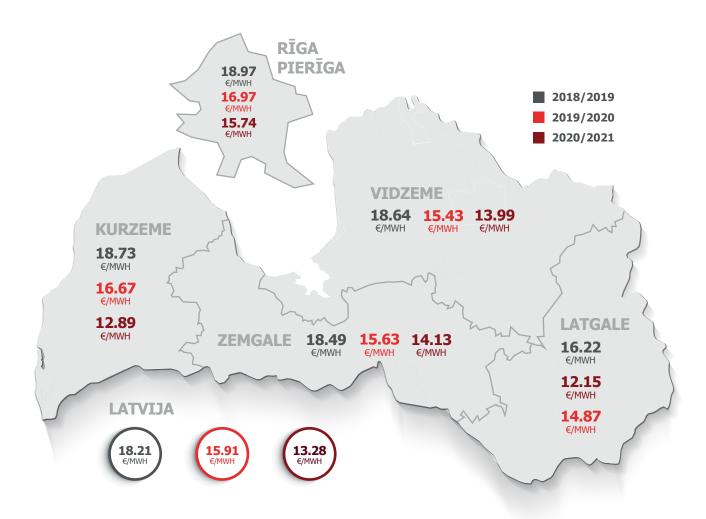
During the heating season of 2020/2021, a decrease in fuel prices was observed. Woodchips are the most used fuel out of all biomass types. The Latvian woodchip market is primarily affected by the volume of woodchips produced, the import of the resource from Lithuania and Belarus, as well as exports to the Nordic countries and Central Europe.



There are regional differences in woodchip prices - in places where supply and demand are balanced, woodchip prices are lower. On the other hand, in regions where export by sea is possible and in regions where the share of biomass fuels in the production and/or supply of heat has increased significantly, the consumption has grown faster than production. Consequently, the price in some regions of Latvia has remained relatively high.

The cost of fuel (natural gas) is primarily determined by global trends. The decline in economic activity caused by last year's pandemic, combined with the relatively warm winter in the region, led to atypically low natural gas prices. Natural gas prices started to increase again in the fourth quarter of 2020 and continue to rise in 2021.

Average woodchip prices in Latvian regions (EUR/MWh)



TARIFFS, TARIFF CALCULATION METHODOLOGIES AND TARIFF CHANGES



Heat energy tariffs have fallen in many places in Latvia

Users in 94 territories receive heat supply services in Latvia at regulated tariffs. In seven of the territories, a tariff application procedure has been established for four merchants - the tariff changes every month. In other territories, the tariff changes due to the use of a permit or a full revision of the tariff.

The permit allows the heat company to set heat tariffs itself if the price of purchased heat and/or fuel (natural gas or woodchips) changes. This means that if the price of purchased heat energy and/or fuel in the future will be lower than that included in the tariff, the merchant must set a lower tariff.

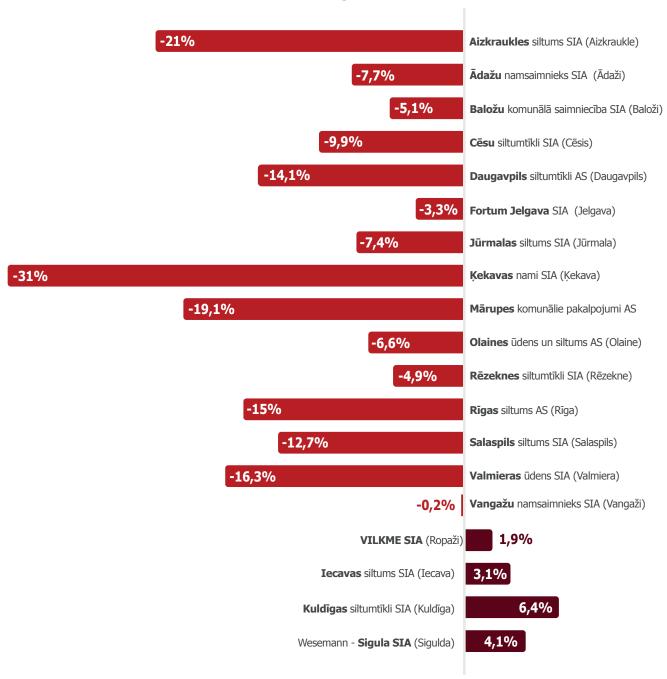
The average heat energy tariff in Latvia at the end of 2020 was 53.13 EUR/MWh (2.33 EUR/MWh less compared to the beginning of 2020). The lowest tariff set by PUC was in Aizkraukle city - 35.45 EUR/MWh, while the highest tariff was in Saulkrasti city - 69.98 EUR/MWh.

In total, PUC adopted 56 decisions approving new tariffs. Of these, 14 decisions were made after evaluating and approving the full evaluation of tariffs and the simultaneous issuance of a permit. In 33 cases, PUC approved tariffs, which allow to set tariffs themselves, but in eight cases, tariff application procedures were approved, and one permit was issued.

Given that some of the decisions related to the use of the permits granted to merchants to set their own tariffs, tariffs changed repeatedly in several locations. Changes in tariffs during the year were related to changes in the price of fuel and purchased heat energy. In total, tariffs changed during the year for 20 merchants, of which in 16 cases it decreased, but increased in four cases.







SUPERVISION OF SERVICE QUALITY

Non-compliances were identified for 12 merchants; the number of complaints has increased

User protection and review of applications

A total of 11 complaints were received last year, five on billing issues, four on tariffs, one on the quality of services and one on the timing of a public hearing. Last year, the number of complaints increased by 83% compared to 2019.

²ς

Most of the objections were related to the services provided by the manager of the residential house and the invoices issued for the supplied heat energy. Residential house management services are not monitored by PUC, as it is not a regulated service. In the event of a dispute over the invoices issued by the operator, the issue shall be resolved by discussing the situation between the two parties, but if the user is interested in whether the applied heat tariff in the invoice is correct, the user may refer the matter to PUC.

PUC monitors the quality of the supplied heat, about which one complaint was received. PUC assessed the situation and carried out an emergency inspection of the heat supply facility. As a result, a number of discrepancies were identified. The involved heat supply companies were informed about the discrepancies by drawing up an action plan for elimination of consequences and calculation of compensation. As a result, the necessary technical improvements were made to the heat supply facility and users were compensated for the inadequate heat supply quality.

Monitoring of heat supply facilities

In 2020, operational compliance checks of 22 objects of merchants were performed, during which 52 objects were inspected. During the inspections, 36 discrepancies were detected for 12 merchants. Last year, discrepancies were eliminated in 19 cases, the rest were eliminated in 2021 or will be eliminated during 2021 in accordance with the instructions of PUC.



Most of the discrepancies were found in the use of electrical and gas equipment, for example, no periodic measurements were performed, or the potential alignment of the gas pipeline was incomplete. Most of the deficiencies did not directly affect the security of heat supply, but may, under the circumstances, lead to significant disruption of the production process and equipment damage.

PRIORITIES AND CHALLENGES FOR 2021

SETTING ECONOMICALLY REASONABLE PRICES

Developing an efficient heat supply methodology that meets the needs of the sector and reflects a harmonized approach to tariff setting in the energy sector.





The number of companies remains unchanged, the quality of business activity has improved

In the water management sector, PUC regulates water supply and sewerage services provided by companies, if the volume of water management services in at least one of the four types of the public service exceeds 100,000 m3 per year:



At the end of 2020, 63 regulated companies were registered in the Register of Water Management Service Providers, which is a constant number since the end of 2019. During 2020, LLC Vilkme, LLC Ķeguma stars, LLC Gulbenes nami, and LLC Limbažu siltums became regulated companies. Four companies were excluded from the Register - Ropaži municipality's LLC Ciemats, LLC Viļānu namsaimnieks, Rūjiena city's LLC Rūjienas siltums, and Limbaži city's LLC Limbažu komunālserviss.

The volume of water management services of LLC Viļānu namsaimnieks and Rūjiena city's LLC Rūjienas siltums did not reach the regulated threshold - 100,000 m3 per year; due to reorganization, Ropaži municipality LLC Ciemats and Limbaži city's LLC Limbažu komunālserviss were merged with other merchants which took over the provision of services in the respective territories.

SERVICE COSTS



The number of connections is increasing, drinking water consumption is slightly decreasing

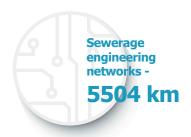
Description of the sector¹

In Latvia, 82.04 million m3 of water were extracted from 427 separated water supply systems in 2019 using 946 underground water extraction wells. Meanwhile, 90.86 million m3 of collected wastewater were treated in 378 separate sewerage systems, which were transported for treatment through 1199 sewage pumping stations.

The volume of services provided to users has not changed significantly compared to the previous year. Users of water supply services consumed 0.4% less water. Meanwhile, 0.5% more wastewaters have been collected from users of sewerage services.

The number of users of water management services continues to grow. In 2019, regulated water service providers serviced 6108 connections² more than in 2018. This shows that users will continue to connect to sites set up in previous years with European co-financed or restored engineering networks.





The total length of serviced and maintained water management engineering networks in 2019, compared to 2018, has increased by 2%.

Description of costs

The total costs of water services in the sector are rising. The largest part - 61% - of the costs included in the tariff still consists of operating costs (personnel costs, electricity costs, repair, and material costs) of regulated companies.

When evaluating the indicators provided by companies, PUC also repeatedly calls on companies to audit electrical equipment and review inefficient contracts with electricity suppliers. As a result, electricity costs for many companies are falling.

¹ Information on economic activity in 2020 will be compiled from the reports that companies must submit to PUC for the evaluation of annual activities by 15 May 2021 or 15 August 2021, if the company meets the criterion "large company" in accordance with the Law on Annual Accounts and Consolidated Annual Accounts.

² Water supply and sewerage connections together.

Cost structure of water management services of regulated companies³

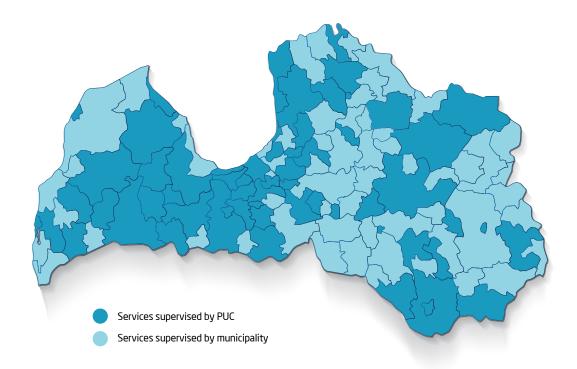




TARIFFS, TARIFF CALCULATION METHODOLOGIES AND TARIFF CHANGES

For the first time in the water management sector, PUC approved a tariff application procedure

PUC has approved tariffs for 90% of regulated water management companies; other companies apply tariffs or fees approved by municipal regulators.



³ Information on economic activity in 2020 will be compiled from the reports that companies must submit to PUC for the evaluation of annual activities by 15 May 2021 or 15 August 2021, if the company meets the criterion "large company" in accordance with the Law on Annual Accounts and Consolidated Annual Accounts.

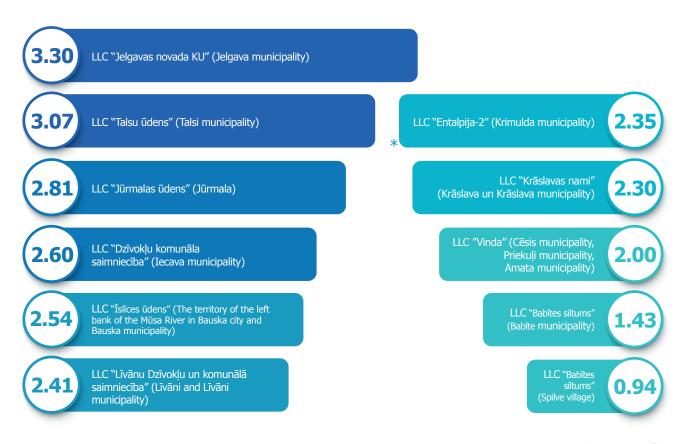
In 2020, PUC approved new tariffs for water management services for 10 companies, as well as one tariff application procedure. During the examination of the tariff proposals, in seven cases PUC reduced water management tariffs, in two cases PUC kept the tariffs unchanged and in only one situation the tariff increased compared to the initially submitted tariff.



The tariff application procedure was approved for LLC Rīgas ūdens for the period from 1 May 2020 to 31 July 2020. As a result, tariffs for water management services for the citizens of Riga were 7% lower for three months. Such a reduction in tariffs was achieved due to the reduction of the profit margin included in the tariff proposal of LLC Rīgas ūdens. Savings of more than 900 thousand EUR due to the difference between the actual profit of 2019 and the profit included in the tariff allowed LLC Rīgas ūdens to use it for the reduction of tariffs. This decision on the procedure for applying tariffs in the water management sector was made for the first time. Thanks to the amendments to the Law On Regulators of Public Utilities, PUC was able to efficiently review and approve tariffs, especially under Covid-19 conditions.

The average water management tariff in Latvia at the end of 2020 was 2.27 EUR/m³, which is 0.03 EUR/m³ more than in 2019. The lowest water management tariff was in Daugavpils (1.46 EUR/m³), while the highest water management tariff in Latvia was in Talsi region (3.07 EUR/m³).

Tariffs approved by PUC in 2020 (EUR/m³)



*sewerage tariff

SUPERVISION OF SERVICE QUALITY



The number of complaints remained the same as in 2019

Last year, PUC received 11 complaints and provided 55 telephone consultations on water management services. The number of complaints decreased by one last year. Uncertainties have mainly arisen over water service bills, tariff application, contracts, and service quality. Since 2019, PUC also publishes indicators of regulated water companies, such as the number of connections, costs, efficiency indicators (water losses, costs per kilometre or cubic metre, etc.). Municipal residents, as well as companies, can compare the indicators of regulated companies with companies operating in other municipalities. You can find out more about the indicators on the PUC website.

PRIORITIES AND CHALLENGES FOR 2021

ADJUSTMENT OF THE REGULATORY ENVIRONMENT

regarding the investment of municipal fixed assets in the capital of water management service providers in cases where local governments have received co-financing from the state, local government, foreign, European Union or other international organization and institution for the establishment of these fixed assets. It is important that when such fixed assets are taken over from the municipality, they are recorded in such a way that the depreciation of the part co-financed by the water management service providers is not included in the water management service tariffs.

ENSURING A COMMON APPROACH

regarding the service life of fixed assets of water management, which in one case have been established by the local government, but in the other case by the water management service provider. In the case of local governments, the regulations specify the service life of fixed assets almost twice as short as that determined by the manufacturer. The longer the service life, the lower the water supply costs and thus the water management tariffs.

CREATION OF A ROAD MAP

in co-operation with the Union of Local Governments of Latvia, to help reorganize the activities of the provision of water management services in the territories of the local governments. Such changes will take place after the municipal elections in the second half of 2021 due to the administrative-territorial reform. In the new administrative territories, water management services can be provided either by one water management service provider with a single tariff for the whole served territory, or the provision of the service in one territory will be entrusted to several water management service providers, each with its own tariff in its territory

MUNICIPAL WASTE DISPOSAL AND DEPOSIT SYSTEM







FACTS AND FIGURES





The number of landfill operators is declining



The procedure for application of tariffs for landfill operators has been approved



As a result of changes in the **NRT rate**, tariffs increase



Tariffs for municipal waste disposal services (at NRT rate 50 EUR/t)





in the supervision of which PUC also participates. In 2020, three regulatory enactments were approved, which form part of the regulatory framework necessary for the successful operation of the deposit system.

WASTE DISPOSAL AND DEPOSIT SYSTEM



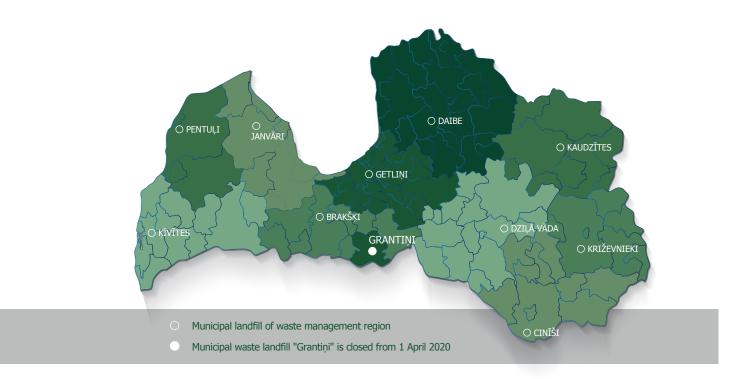
As the natural resource tax rate increases, the tariffs for municipal waste disposal services also increase

REGISTRATION AND SUPERVISION OF COMPANIES

The number of landfill operators is declining

In the municipal waste management sector, PUC regulates the municipal waste disposal service in municipal waste landfills (landfills). The territory of Latvia is divided into 10 waste management regions (WMRs), as provided for in the National Waste Management Plan.

Until March 31, 2020, there were 11 landfills in Latvia operated by 11 companies, but LLC Vides serviss stopped providing the regulated service at the Bauska district landfill Grantini on April 1, 2020, because the waste disposal repository is full. Thus, at the end of 2020, there were 10 landfills operated by 10 landfill operators registered in the PUC Register.



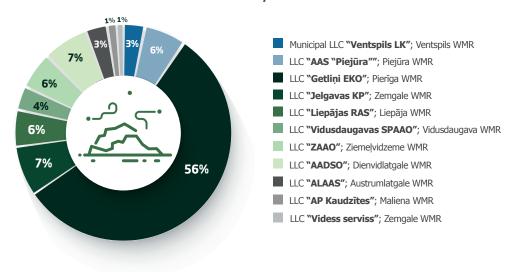
According to the latest data submitted by PUC on the economic activities of regulated companies¹, a total of 522 thousand tons of unsorted municipal waste have been accepted at landfills, which is 1% less than in the previous year. Residents are increasingly sorting municipal waste, thus reducing the amount of waste that ends up in landfills. This trend is gradually growing, given that the tariff for municipal waste disposal is increasing every year. At the same time, the awareness of the population about the importance of waste sorting



The largest amount of unsorted municipal waste was accepted at the Getlini landfill, which manages approximately 56% of the total amount of unsorted municipal waste accepted at landfills. The smallest amount of waste was accepted at the landfills Grantini and Kaudzītes (approximately 1% each).

to achieve environmental protection goals has increased.

Percentage of the amount of municipal waste accepted at landfills in the total amount, %



SERVICE COSTS

The amount of waste disposed in landfills coming from the unsorted municipal waste stream remains unchanged, the costs of the regulated service are increasing

Description of the sector

The latest data submitted to PUC suggests that about 29% of the total amount of unsorted municipal waste accepted at landfills are disposed at the landfills. This proportion has been constant for several years.

¹ With regard to the economic activity data of regulated companies, information is provided here and below based on 2019 data. Information on economic activity in 2020 will be compiled from reports that merchants must submit to PUC for evaluation of annual activity by 15 May 2021 or 15 August 2021, if the company meets the criterion "large company" in accordance with the criteria specified in the Law on Annual Accounts and Consolidated Annual Accounts.

Amount of unsorted municipal waste managed in landfills (thousand tons)





Description of costs

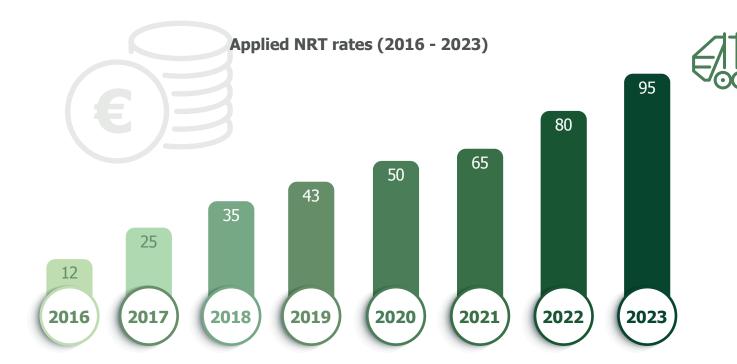
The actual cost of managing one tonne of unsorted municipal waste in landfills is increasing every year. This is due to economic growth, which has led to higher salaries of personnel, electricity, and fuel prices. At the same time, it is influenced by the processes of renewal and replacement of specialized machinery and technological equipment started by companies to provide the regulated service in accordance with the requirements of environmental regulatory enactments. The costs of transferring recyclable materials for recycling and recovery are also rising. The increase in costs is also significantly influenced by the annually increasing NRT rate for municipal waste disposal.

TARIFFS, TARIFF CALCULATION METHODOLOGY AND TARIFF CHANGES

As a result of changes in the NRT rate, tariffs are rising

According to the National Resources Tax Law, in 2020 the NRT rate for municipal waste disposal increased to 50 EUR/t, while in 2019 it was 43 EUR/t. As a result, tariffs increased in 2020.

At the same time, at the end of 2020, the Saeima adopted new changes to the NRT Law, which envisage a gradual increase of the NRT rate until 2023. Along with these changes in the NRT Law, in December 2020, PUC approved the procedure for applying tariffs to 10 landfill operators. As a result, further annual tariff increases are expected from 2021 to 2023.

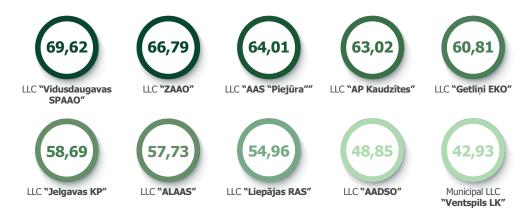


Last year, two companies - LLC ZAAO and LLC Jelgavas komunālie pakalpojumi - started to apply new tariffs approved by PUC, as the costs related to the regulated service changed significantly.

LLC ZAAO started to apply a new tariff from January 5, 2020. To ensure the continuity and efficiency of the regulated service, the company had to renew and replace old, specialized machinery and equipment, this time using the merchant's own financial resources, as European Union funds no longer provide support for waste disposal as was initially the case when the landfill started operating in 2003. This was one of the main reasons for the increase in the tariff of LLC ZAAO.

Meanwhile, LLC Jelgavas komunālie pakalpojumi applied a new tariff from October 1, 2020. The new tariff was approved because the company needed significant investments to build a waste biogas collection system at the landfill, as required by environmental regulations. Changing the bio-waste management model also had a significant impact on costs.

Tariffs approved by PUC on 31 December 2020 (at NRT rate of 50 EUR/t)



SUPERVISION OF SERVICE QUALITY



No complaints have been received over the last three years

Last year, no user complaints were received about the municipal waste disposal service. PUC continued to work on the development of informative materials, introducing users to the waste management sector in an interactive form, as well as providing information on changes in the sector regulation and performance indicators of regulated companies.

More information is available on the PUC website, in the sections "Frequently Asked Questions", "Sector Indicators" and "Tariffs".

DEPOSIT SYSTEM

Three regulatory enactments were approved, which form part of the regulatory framework necessary for the successful operation of the deposit system

Last year, PUC approved several regulatory enactments related to the introduction of a deposit system for used beverage packaging in Latvia, which will start operating on February 1, 2022. The operation of the system will be ensured by the deposit system operator (DSO), which as a regulated merchant will provide the DSO deposit system provision service.

PUC will be responsible for approving the deposit system membership fee, assessing its justification and supervision of the regulated service. PUC will also resolve potential disputes between the DSO and the participants in the system regarding the deposit package management fee that the operator will pay to traders for accepting the deposit packaging from beverage consumers. The cost of this management fee will make up the bulk of the cost of the deposit scheme membership fee. PUC would resolve disputes if the parties involved do not wish to resolve the disputes in court.

PRIORITIES AND CHALLENGES FOR 2021



For the waste management system in Latvia to develop successfully, the boundaries of the current Waste Management Regions (WMRs) will be reviewed, as provided for in the National Waste Management Plan 2021–2028. In 2021, the Cabinet of Ministers will determine the new WMRs, which are planned to be reduced - from ten to five WMRs. Changes for PUC are expected no earlier than 2024, when the municipalities of the new WMRs will have agreed on a model for the further development of waste management in their WMRs and approved the regional waste management plans.

LANDFILL INFRASTRUCTURE OPTIMISATION

In the coming years, landfill infrastructure optimisation will take place in Latvia. All landfills will be reorganized into regional waste management centres. By 2023, the task of the municipalities of the new WMRs will be to determine which waste management centres will continue to dispose of waste, if economically and technologically justified, and which will provide other waste management and treatment services.

SEPARATE COLLECTION OF BIOLOGICAL WASTE

Mandatory implementation of the separate collection system of biological waste (BW) in Pieriga WMR is stipulated from January 1, 2021, while in other Latvian WMRs - until 2023. BW accounts for about 40% of unsorted municipal waste and its separate collection will significantly reduce the amount of municipal waste going to landfills. At the same time, it will also have an impact on the tariff for municipal waste disposal; the tariff will increase at lower volumes.

CONSTRUCTION OF BW RECYCLING COMPLEX AT THE WASTE LANDFILL GETLINI

In 2021, a BW processing plant built with EU co-financing will start operating in the territory of the municipal waste landfill Getliņi. The total project costs are 40 million EUR. Considering the changes in waste flows, as well as a new technological solution for BW treatment, after the commissioning of the plant, LLC Getliņi EKO plans to submit a new tariff proposal to PUC in 2021. The plant will be one of the largest in Europe and will allow Latvia to meet EU requirements for BW recycling. In the plant, the BW separated from the unsorted municipal waste stream, as well as the separately collected one, will be recycled, creating biogas, from which the merchant will produce heat and electricity in the cogeneration process.

IN 2021, A MERCHANT WILL BE SELECTED TO INTRODUCE A DEPOSIT SYSTEM FOR USED BEVERAGE PACKAGING IN LATVIA

On January 14, 2021, the State Environmental Service entered into an agreement with LLC Depozīta iepakojuma Operators, which must introduce a deposit system for the collection of used beverage packaging in Latvia by February 1, 2022. On January 21, 2021, LLC Depozīta iepakojuma Operators registered with the Regulator as a provider of deposit system provision services.

FACTS AND FIGURES





approved tariffs for water management services











invoices



application of tariffs



contracts

quality of service





telephone consultations

55

Length of engineering networks

used by regulated companies (km) for water supply



ELECTRONIC COMMUNICATIONS AND UNIVERSAL SERVICE







FACTS AND FIGURES





numbers



numbers

In a fixed network thousand allocated

numbers

thousand cancelled numbers

136



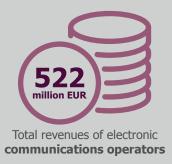
In the mobile network per month



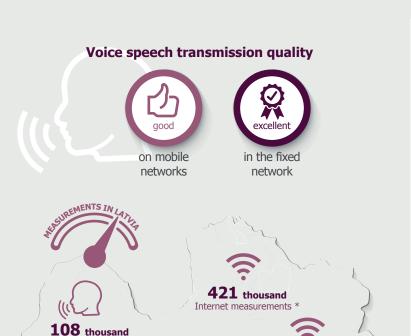
voice quality measurements -fixed and mobile network

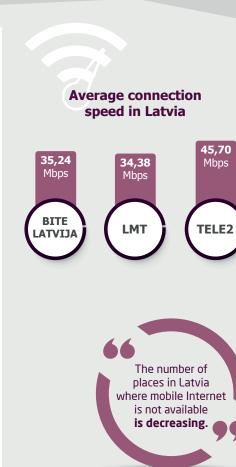
*random measurements, which reflect the dynamics of measurements over a period of 24 hours at a specific location











16 thousand

serial measurements - at

a specific place and time



REGISTRATION AND SUPERVISION OF COMPANIES

New companies were registered, the total number of companies is slightly decreasing

In the electronic communications sector, PUC monitors seven different services: voice telephony, transmission of data and electronic messages, leased lines, Internet access, distribution of radio or television programs on public electronic communications networks, access to networks and infrastructure, and interconnections between operators.





Allocation of numbering and frequency usage rights

Last year, 60 decisions were adopted on granting the right to use numbering to electronic communications operators and 10 decisions on the right to use radio spectrum.

PUC continues to monitor the efficient use of numbering resources - to ensure that electronic communications operators promote the development of the service and ensure that end-users receive electronic communications services as opposed to not using the numbering allocated to them. PUC also has the right to cancel the granted numbering rights if the use of numbering rights has not been started to a specified extent and within a certain period of time.

NUMBERING TYPE	ALLOCATED		CANCELLED	
	NUMBERS	COMPANIES	NUMBERS	COMPANIES
Public fixed telephone network numbers	7000	9	136 000	16
Public mobile telephone network numbers	700 000	1	10 000	1
Toll-free numbers	106	6	12 383	14
Shared payment service numbers (part of the charge to be borne by the user who makes the call, the other part - by the service provider)	0	0	20 000	2
Premium rate service numbers	130	1	4 928	8
Numbers for other types of services	0	0	104 813	5
Short codes	7	4	10	4
Identification codes	105	3	8	6
TOTAL:	707 348		288 142	

Numbering fraud: how to prevent it?



Latvian national numbers are still used for fraud both at home and abroad. Last year, the number of fraud cases using numbering increased. In total, in 2020 PUC received 15 applications from Latvian electronic communications operators regarding fraud cases, while in 2019 12 applications were received. Users mainly receive calls from a Latvian number that is the same or similar to one of the Latvian operator numbers, and the intent of the fraudsters is to steal private information from the user.

As a result of the proposals provided by PUC in the National Numbering Plan separately from the numbers, allocated to personal communication, numbers were allocated for the Internet of Things¹ service provision and equipment-to-equipment communication (IoT/M2M). To provide operators with the possibility to request IoT/M2M and Internet case numbers immediately, PUC also updated the regulatory framework.

Last year, the allocation and usage of the rights to use numbering became a paid service for electronic communications operators from 2021. The fee is set in such a way that it does not affect the end user. Latvian national numbers can only be used in Latvia. However, foreign companies often violate the regulatory framework and use the numbers abroad, therefore some of the numbers are not even available to Latvian residents. Taking into account that PUC has the right to allocate IoT/M2M numbers, which are used only for mutual equipment communication, PUC anticipates that the number of cases when Latvian numbering resources will be used abroad in violation of regulatory enactments will further decrease.

Interconnection agreements

Relationships of electronic communications companies are determined by several types of agreements. Operators shall conclude an interconnection agreement (agreement) to enable end-users of one public electronic communications network to communicate with end-users of another public electronic communications network. The agreement shall include all technical, commercial, and other provisions for access or interconnection.

PUC specifies the requirements for the information to be included in the agreements, therefore a merchant must submit the agreement to PUC within 10 working days after concluding or amending the agreement. PUC verifies that the agreements contain all the required information, which helps to avoid possible disputes and react to the disputes quickly. One of the reasons for disputes may be the information to be included regarding actions and payment procedures if fraudulent use of numbering is detected.

¹ Internet of Things - any electrically controlled device that can be turned on or off can be connected to the Internet, for example, the building itself regulates the temperature at home.

Last year, three new interconnection agreements were registered, 13 interconnection agreements were terminated, and 111 interconnection agreements were in force at the end of the year.





Access to the electronic communications network

Access is a service provided to another electronic communications operator with specific conditions for accessing equipment and services required for the provision of electronic communications services which is mainly used for the provision of Internet and TV services to end-users.

The access service in Latvia is provided by LLC Tet by regularly publishing a new reference offer for access services. An access service is the provision of access to cable ducts and poles, as well as unbundled local loops and data traffic.

PUC must monitor the availability of this service so that it is not prohibited for a potential applicant, for example, to use the cable sewerage owned by LLC Tet to provide Internet service. PUC, evaluating the basic offer of LLC Tet, concluded that it does not fully comply with PUC regulations. To eliminate this problem, PUC requested LLC Tet to make clarifications therein, which were done in May 2020.

Although last year the transposition of the requirements of European directives² into the Electronic Communications Law was not completed in time, in accordance with the delegation provided for in the directive, PUC simultaneously worked on regulatory developments to promote access development and accessibility. The regulations will specify the requirements to be met in the field of access both by LLC Tet and other electronic communications operators that provide access to cable ducts.

At the end of 2020, access to LLC Tet data traffic was received by eight electronic communications operators, which provided services to 153 end users, while access to cable ducts was also granted to eight operators which rented space in cable ducts for a total length of 279 km.

² European Directive No 2018/1972.

SERVICE COSTS



Internet use increases by 37%; operators' revenues are increasing

Last year, on average, one user talked on a mobile network for 4 hours and consumed 21 GB per month. Compared to 2019, it is about 40% more. In the fixed network, a user has talked 60 minutes on average per month, which is 9% more than in 2019.

The total revenue from services provided by electronic communications operators reached 522 million EUR. The three mobile operators and the fixed operator - LLC Tet received the largest revenues.

With the increase in the volume of mobile network services, the revenue from the provision of mobile Internet service in retail has increased by 6.1%, but for the voice telephony service - by 1.1%.

TARIFFS, TARIFF CALCULATION METHODOLOGY, TARIFF CHANGES

Roaming charges continue to fall

Since 2017, the European Economic Area (EEA) has had a "roam like at home" regime, which allows customers of Latvian mobile operators to use mobile services throughout Europe at the same tariffs as at home. PUC continues to monitor fair compliance with this regime. Roaming charges in the EEA were lower in 2020 at € 3.5 per GB, compared to € 7.70 per GB initially.

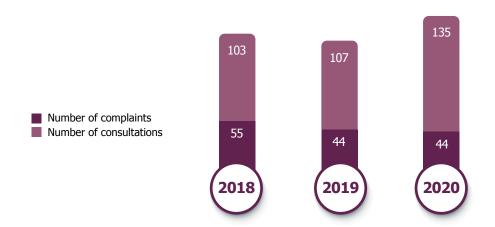
Last December, the European Commission adopted a regulation setting a single EEA-wide termination rate cap. The upper limit of this tariff in the mobile network will be EUR 0.20 per minute, which is planned to be introduced gradually by 2024, while the upper limit of the tariff in the fixed network from 2021 will be EUR 0.07 per minute.



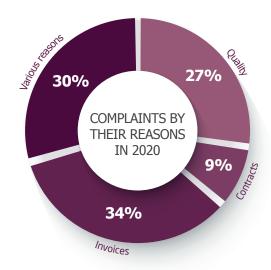


The quality of mobile internet services is improving; call quality remained high last year

In 2020, PUC has received and provided answers to 44 user complaints and 135 telephone consultations, the number of which has increased compared to 2019.



When evaluating the reasons for complaints, users mainly complained about the quality of services, contracts, and bills. The number of complaints about the quality of service has increased by 33%, which contrasts with the number of complaints about contracts, which has decreased by 60%.



PUC carried out seven quality inspections regarding the written complaints received, in four of which the quality of the service did not meet with the requirements of the contract. Most often, users were dissatisfied with the services provided by LLC BITE Latvija, LLC Tele2, and LLC Tet, less often - LLC LMT and LLC Baltcom.

Quality of voice telephony services



During the measurements of voice telephony service, PUC evaluates three parameters - unsuccessful call ratio, call set-up time and speech transmission quality. A voice control system is used to assess the quality of service. Last year more than 38 thousand measurements were performed in the fixed network and 70 thousand on mobile networks.



38 thousand in the fixed network

70 thousand in the mobile network

Compared to 2019, the average call set-up time in the networks of some mobile operators was shorter (2.5 to 4.1 seconds), while in the fixed network it was 0.7 seconds. In 2020, the average call set-up time indicator in the network of LLC BITE Latvija and LLC Tele2 significantly improved, providing a shorter call connection time. Meanwhile, the average call set-up time in the mobile network of LLC LMT during the last three years has been stable to ensure a fast call. The call set-up time of LLC Tet in the fixed network has also become shorter.

Speech transmission quality was assessed using PESQ³ and POLQA⁴ algorithm, characterizing the assessment according to the 5 - point scale indicated in the table⁵.

QUALITY ASSESSMENT	VALUE SCORE	EXPLANATION OF THE ASSESSMENT	
Excellent	≥ 4	Voices can be heard clearly, and no disturbing background noise can be heard	
Good	≥ 3 līdz < 4	Conversation with a small noise background	
Satisfactory	≥ 2 līdz < 3	Due to insufficient hearing or temporary interruptions, certain words may not be heard clearly	
Weak	≥ 1 līdz < 2	Due to high noise or interruptions, only certain words can be heard	
Bad	<1	Communication in not possible	

Voice speech transmission quality in the networks of Latvian mobile operators was assessed as good, while in the fixed network of LLC Tet it was excellent. Overall, the quality of speech transmission has remained stable over the last three years. The unsuccessful call ratio in the mobile network is also rarely detected - in 0.03% of cases. Such a low unsuccessful call ratio means that only in some cases unsuccessful call ratio was detected in the fixed network of LLC Tet and mobile networks, while in an area of good reception and performing more than 10 thousand connections. This demonstrates the excellent network stability of all operators.

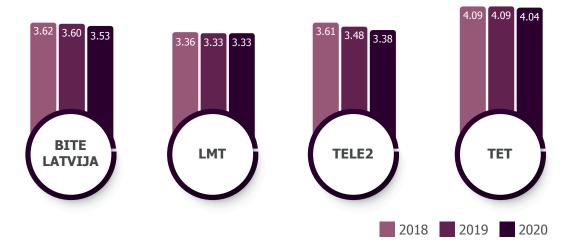
⁴ POLQA – Perceptual Objective Listening Quality Analysis.

³ PESQ – Perceptual Evaluation of Speech Quality.

⁵ POLQA and PESQ algorithms are not directly comparable, i.e., numerically equal evaluation of PESQ and POLQA does not describe the same quality of speech transmission.

Results of measurements of the average speech transmission quality over the last three years⁶





Although unsuccessful calls have been reported in rare cases, operators have generally maintained a high level of voice telephony services for several years in a row, and good audibility and call reception are being ensured during the calls.

Internet service quality

Internet service measurements were performed using an Internet service quality control system and terminals that provide measurements in a 2G, 3G and 4G network. During the measurements of the quality of Internet service, PUC determines such parameters as connection speed (download and upload), latency, jitter and packet loss ratio.

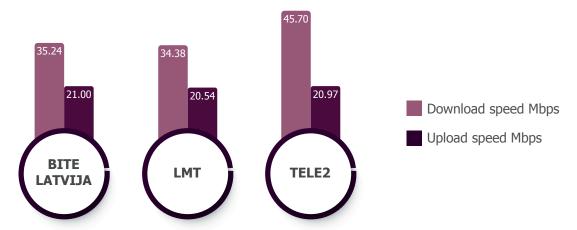
Last year PUC performed more than 421 thousand random measurements, which reflect the dynamics of measurements for 24 hours in one specific location, as well as 16 thousand measurements carried out at a specified place and time. In all mobile operator networks, the 4G network was available in 97% of the measurement locations.



⁶ PESQ algorithm was used.

Average connection speed for 95% of measurements in 4G network in Latvia





The average connection speed characterizes the general level of mobile Internet service quality and its development dynamics in Latvia. In different places, these figures can vary widely, so the averages cannot be considered as an actual assessment of Internet service at each connection point.

Last year, the average download speed in all operators' mobile networks reached 38.16 Mbps; in 2019, the average speed was 36.36 Mbps. According to information published by regulators in other countries, the average download speed in European countries varies from 19.7 Mbps to 69.1 Mbps. For example, streaming high-quality HD video requires 5-10 Mbps, but very high-quality (UHD/4K) video requires about 25 Mbps. Operators in Latvia provide such average download speeds and even higher ones to their mobile users.

Last year, the download speed of 30 Mbps to 100 Mbps was provided in a wider area - 60% of measurement sites compared to 50% in 2019. In turn, more than 90% of all measurements had a download speed of 10 Mbps to 30 Mbps. In the opinion of PUC, the appropriate download speed for the use of Internet services is at least 6 Mbps. Last year, the average download speed, which is lower than 6 Mbps, was observed in only 2–5% of measurement sites.

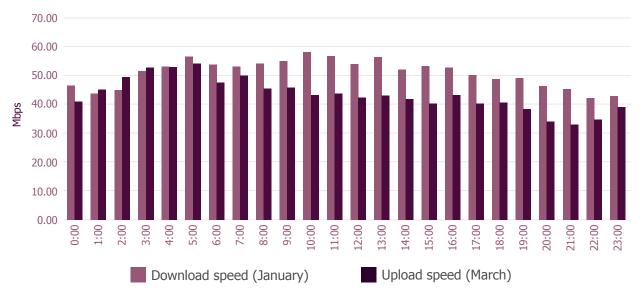
However, despite the widespread use of 4G networks and high connection speeds, there were still places during 2020 measurements where mobile internet is not available outside cities7 due to unstable or non-existent coverage. The number of such sites was less than in 1% of all measurements taken. It should be noted that in less populated areas, the situation where the Internet is not available or difficult to use may be more common.

During the Covid-19 emergency, internet speeds have remained stable. The slowdown in download speeds was only temporary when Latvia's government first declared a state of emergency. In the networks of some mobile operators, the average Internet speed decreased by about 30% in March 2020 compared to January, but already in April the situation returned to normal. In places with a particularly high number of users who use the Internet at the same time, the connection speed may decrease significantly.

⁷ Nine cities and 67 municipal cities in accordance with the Law on Administrative Territories and Settlements.







Despite the reduction in connection speed, overall download speeds were maintained at a high level during the emergency. In only about 4% of all measurements made between March and June the download speed values did not exceed 10 Mbps. In most measurements (more than 50% and in the networks of individual operators even 90% of measurements) the download speed exceeded 30 Mbps.

In general, the capacity of the networks of mobile operators can be assessed as sufficient to ensure the quality of Internet service at an appropriate level in the conditions of increased demand. It should be noted that in places with a particularly high number of users using the Internet at the same time, the connection speed may be reduced and the use of the Internet service may be difficult or disrupted.

On the other hand, to open a large content website without interruption, the allowable time delay (latency) from the moment the user performs an activity on the website to the receipt of the response is 50-400 milliseconds (ms). The shorter the time delay, the faster you can open the selected website without waiting. For real-time services such as online games, it is important to receive information immediately - with as little delay as possible. Last year, the average delay in the networks of mobile operators was 15-23 ms, which is much less than the maximum allowable values.

Latency values in 4G network

COMPANY	MESUREMENT (ms) VALUE	DECLARED	
LLC Bite Latvija	22,69	≤100	
LLC LMT	15,08	≤400	
LLC Tele2	23,56	≤100	

Comparing these values and the information submitted by the mobile operators in the 2020 quality declarations, it can be concluded that all mobile operators provide average latency indicators in accordance with the values indicated in the quality declarations.

UNIVERSAL SERVICE IN THE ELECTRONIC COMMUNICATIONS SECTOR



Historically oldest type of the universal service

The universal service is the set of electronic communications services specified for minimum requirements of users that is available for an affordable price to all existing and potential users irrespective of their geographical location.

Since 2003 the universal service in Latvia is provided by LLC Tet (previously LLC Lattelecom). Historically, the scope of the universal service was much wider - payphone services, telephone directories, directory inquiry services, etc. As digital technologies and capabilities evolved, customers used these services less frequently; however, the universal services basket was maintained, ensuring favourable conditions for the provision of services to persons with special needs. Consequently, last year as in previous years, LLC Tet was obliged to provide disabled persons with specific discounts for electronic communications services.

After analysing the submitted information, PUC confirmed that in 2019 the provision of the universal service caused losses of EUR 360,948 which must be compensated from the state budget.

PRIORITIES AND CHALLENGES FOR 2021

ORGANIZATION OF TWO RADIO FREQUENCIES AUCTIONS

for the use of 5G technology services.

DEVELOPMENT OF A NEW INTERNET MEASURING TOOL

based on a prototype Internet measurement system developed by the Body of European Regulators for Electronic Communications (BEREC). The introduction of such a tool will provide an opportunity to perform measurements according to a common measurement method with the possibility to compare quality indicators between different countries. At the same time, this tool will be able to assess whether an ISP is blocking or hindering access to a particular page or service that a user wants to use. The operator is prohibited from doing so without a good reason.

ENTRY INTO FORCE OF THE EUROPEAN COMMISSION (EC) REGULATION establishing a single tariff for call termination on fixed and mobile networks applicable throughout the European Union. These tariffs will also indirectly affect (reduce in the long run) voice call tariffs for service users.

DEVELOPMENT AND ADOPTION OF 30 NEW PIECES OF LEGISLATION

under the new Electronic Communications Law. PUC regulation will provide an opportunity for users to get acquainted with a short summary of a contract for the selected service before concluding the contract.

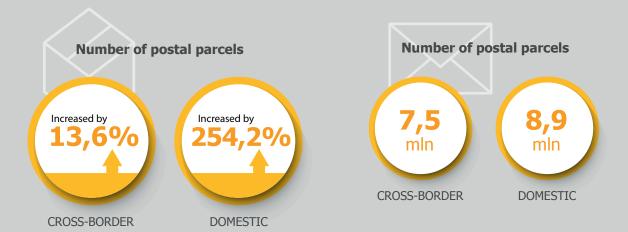
POSTAL SECTOR AND THE UNIVERSAL SERVICE







FACTS AND FIGURES















REGISTRATION AND SUPERVISION OF COMPANIES

In the postal sector, PUC regulates traditional postal services, express mail services, courier services and subscription press delivery services. In 2020, postal services were provided by 68 postal operators. Seven new regulated companies were registered in the PUC's Register, while three companies were excluded.

Last year, the postal services market developed rapidly due to the development of e-commerce and related parcel delivery, in contrast to the rapid decrease in the volume of letters. For example, the number of delivered cross-border postal parcels increased by 13.6% last year, while domestically the increase was 254.2%.





SUPERVISION OF SERVICE QUALITY

Out of 67 million postal deliveries, only 33 complaints were received

In 2020, PUC received and provided written answers to 33 user complaints about services and related issues out of a total of 67 million postal items. Compared to 2019, the number of complaints has increased by 21 complaints or 37%. Complaints were received mainly about the delivery of postal items and the loss or damage of postal items.



Last year, users complained the most about delays of postal deliveries. This cause for complaints has not diminished and has always been relevant, but it has intensified during the Covid-19 pandemic. Delays in shipments were significantly affected by cancelled and restricted international passenger traffic, both in Europe and worldwide.

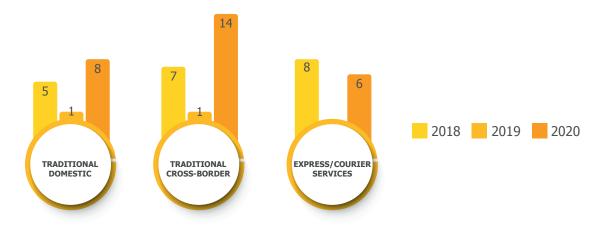
Number of complaints received by their cause in 2018-2020



Under Covid-19, the number of complaints has increased both regarding traditional postal items that are sent domestically - in the territory of Latvia, and cross-border postal items that are sent abroad. No complaints were received about the delivery of the subscribed press.



Number of received complaints by service type in 2018–2020



UNIVERSAL SERVICE IN THE POSTAL SECTOR

For the first time, PUC was involved in the evaluation of the subscription press service tariff

The universal postal service 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;
- delivery of domestic and cross-border parcels (including insured parcels) received from other European Union countries up to 20 kilograms.

For more than 25 years, the provision of the universal postal service was provided by JSC "Latvijas Pasts". PUC has specified the obligations of the universal postal service to ensure the continuity of the universal postal service provision and its availability throughout the territory of Latvia, including remote rural areas. Pursuant to the Postal Law, PUC must organize a tender in 2021 to determine the universal postal service provider from 1 January 2022. For this reason, PUC developed a consultation document in 2020, improving the framework for organizing the tender and setting appropriate quality requirements for the universal postal service provider.

In 2020, PUC analyzed the net costs of fulfilling the universal postal service obligations submitted by state JSC Latvijas pasts but did not approve them. From the justification submitted by JSC "Latvijas Pasts", PUC was not convinced that the operator is subjected to an unfair burden. On the contrary, turnover had increased over the last three years, increasing by 7.9% in 2019. At the same time, losses last year decreased significantly compared to 2018. 2019 was the second year when the provision of the universal postal service had caused losses to be compensated from the universal postal service compensation fund.



At the same time, PUC imposed a fine on JSC Latvijas Pasts in the amount of EUR 9,300, because from March 30 to April 17, 2020 it applied an increased tariff for the delivery of cross-border postal items to the United States (USA). Irrespective of the circumstances and restrictions of the emergency situation, in the opinion of PUC, the actions of JSC Latvijas Pasts were inconsistent with the regulation of the Postal Law. Application of new tariffs is possible only by submitting a tariff proposal for the universal postal service to PUC for approval, which was not done by JSC "Latvijas Pasts".

Service tariffs in the postal sector are set by the postal operator, but UP service tariffs are approved by PUC. On January 1, 2020, the new universal postal service tariffs of JSC Latvijas Pasts came into force, and as a result, from 1 January 2020, the charge for ordinary Class A letter-post items weighing up to 20 grams is 1.00 EUR instead of the previous 0.57 EUR. Meanwhile, for example, the largest charge reduction for sending a domestic postal parcel is for parcels weighing more than 15 kg - from 11.23 EUR to 8.04 EUR. But, for example, the charge for an insured small parcel weighing between 50 and 100 g is 1.91 EUR (previously 3.56 EUR) - a reduction of 46%.

PRIORITIES AND CHALLENGES for 2021



Organizing a competition to select the universal postal service provider, which will perform its duties from 2022.

LEGAL FRAMEWORK

FACTS AND FIGURES

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PUC written explanations to the courts



In the energy sector

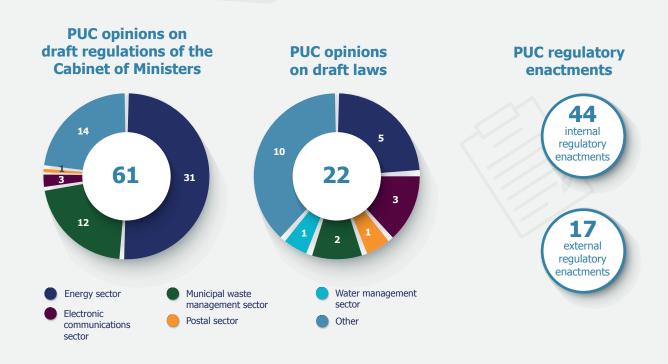


In the postal sector



In the energy sector (with a favorable result for PUC)





COMMUNICATION AND COOPERATION

COMMUNICATION AND COOPERATION

47% of the residents of Latvia believe that PUC explains its adopted decisions openly and comprehensibly

Assessment and involvement of the public

PUC adopts decisions, explains them, and educates users on public service issues. The results¹ of a study conducted by the Market and Public Opinion Research Center (SKDS) show that 47% of the residents of Latvia believe that PUC clearly and comprehensibly explains current issues regarding public service tariffs and other significant changes that affect the interests of users. Compared to 2019, the public's trust in the protection of its interests is growing - 42%, while the number was 29% in 2018.

In addition to educating various target groups, PUC implemented several public activities. PUC was involved in educating pupils and students, explaining how PUC conducts daily Internet measurements in Latvia and how the decisions made by PUC affect the daily lives of the population.



PUC's Shadow Day on February 12, 2020

In 2020, PUC informed users about current issues so that users can make more informed choices and more balanced decisions:

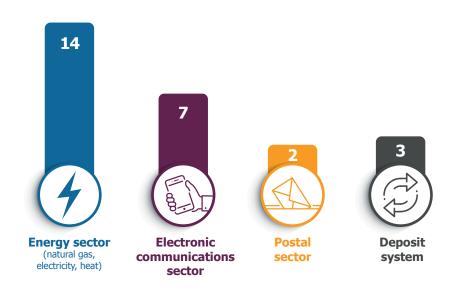
- Three practical steps: how to reduce the cost of electricity?
- Which exchange price contract is more advantageous for households?
- New information in electricity and natural gas bills will be available to users.
- Internet traffic is growing rapidly: how not to lose its quality?

¹ "The Image of the Regulator in Public Assessment", Survey of residents of Latvia, SKDS, June 2020.

Evaluation and involvement of merchants and organizations

The regulatory framework developed by PUC is binding for public service providers, therefore PUC regularly invites interested parties to participate in the decision-making process. PUC invites suggestions during public consultations, working meetings and sectoral discussions. In 2020, 26 public consultations on various regulatory enactments were announced.

Public consultations announced by PUC in each sector



Last year, PUC organized 65 different sectoral events to discuss current issues in the sectors with public service providers and address uncertainties about regulatory changes. This enables simultaneous discussion and exchange of views with a wide range of stakeholders.

SECTOR EVENTS	SECTOR
Meeting: PUC in cooperation with the Advisory Board defines PUC's strategic tasks for 2021	All sectors
Discussion "Changes in the regulation of Inčukalns underground gas storage facility"	Energy
Discussion "Upcoming changes in the regulation of natural gas supply"	Energy
PUC: In a crisis situation, building managers must provide access to communication networks in apartment buildings	Electronic communications
Meeting with the Union of Local Governments of Latvia: "Current issues in the regulation of water management services".	Water management

The results of the survey of regulated merchants conducted by SKDS also show that 76% of regulated companies believe that cooperation with PUC is good.

Along with the organization of discussions, it was equally important for PUC to share examples of good practice by organizing a joint knowledge exchange event with the Competition Council and the Consumer Rights and Protection Center. During the meeting, PUC clarified the procedure for each institution to review the received user complaints and the topical issues that users address in each of the institutions. PUC will continue to share examples of good practice in 2021 by organizing cooperation events.

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Corporate Sustainability - Bronze Award

Last year, PUC participated for the first time in the Sustainability Index assessment, in which more than 100 different companies, municipal institutions and organizations participated. Among all participants, PUC was ranked in the award-winning bronze category. The evaluation received confirms a high culture of responsibility, openness and thinking about the sustainability of the institution.



INTERNATIONAL COOPERATION

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INTERNATIONAL COOPERATION

Despite the circumstances of COVID-19, international cooperation of regulators increased in 2020, especially in the electronic communications and energy sectors, taking into account the requirements of the Clean Energy Package and the European Electronic Communications Code for sectoral regulators. In 2020, PUC was represented at the management level of the ACER Board of Regulators, the Council of European Energy Regulators (CEER) and the Energy Regulators Regional Association (ERRA), as well as in the working groups of these and other organizations.

International organizations set up COVID-19 ad hoc groups, in which PUC participated in the preparation of summaries and conclusions on the impact of the pandemic on the regulated sectors.

ELECTRONIC COMMUNICATIONS

Participation in international organizations and forums

The amount of PUC's work in BEREC increased significantly, with PUC participating in 40 different projects, including the development of documents.

PUC participated in several European Communications Committee's (ECC) numbering working groups, as well as in the ECC regulatory technical problem-solving project group, where PUC co-chaired the group.

At the annual meeting of the Nordic-Baltic Electronic Communications Regulators Network (NB Reg Network), regulators discussed topical issues of the sector, including the introduction of 5G and the issues related to frequencies. PUC continued its work in the plenary sessions and seminars of the Eastern Partnership Electronic Communications Regulators Contact Network (EaPeReg).

Expert contribution to international projects

In 2020, PUC experts participated in two twinning projects. In a consortium with the Italian and German electronic communications regulators, PUC prepared proposals for the harmonization of the Israeli regulatory framework with the EU framework in a project on the implementation of the regulation of the electronic communications sector in Israel. PUC also presented good practice for moving from issuing licenses to merchants to registering general authorisations. In a consortium with the Lithuanian regulator, PUC's experts were responsible for drafting legislative proposals to strengthen the capacity of the Ukrainian regulator in the field of market access and service quality monitoring.

POSTAL SECTOR

International discussions on the future of the postal sector

In the European Regulators Group for Postal Services (ERGP), PUC worked on nine projects, focusing on cross-border parcel delivery and regulation, as a new comprehensive directive is needed to reflect the actual development of the postal sector.

ENERGY 14

Participation in international organizations and forums

Regulation in the electricity and natural gas sectors is characterized by increasing regulatory harmonization of European energy markets. Accordingly, regulatory decision-making is complex: it needs to be coordinated and adopted at regional as well as EU level. Consequently, PUC participated in 19 ACER working groups, 18 working groups of the Council of European Energy Regulators (CEER), as well as regional groups established by the EC.

In order to discuss electricity trade with third countries, as well as the development of the Finnish-Baltic single natural gas market, a high-level working meeting of the three Baltic regulators was held on 27 August 2020, which will henceforth take place annually in this format.

On 23 June 2020, the regulators of Latvia, Lithuania and Estonia signed a memorandum on cooperation in the development of the regional electricity market. It envisages the establishment of the Baltic Regulators' Electricity Market Coordination Group to effectively address issues related to the Clean Energy Package, network codes, and the European Green Course in practice.

In the Energy Regulators Regional Association (ERRA), PUC participated in the development of proposals of all its working groups (electricity, natural gas, renewable energy integration and consumers), provided information to the ERRA Tariff Database, participated in ERRA specialized regulatory training courses as a lecturer and as a participant.

PUC's participation in the EC Structural Reform Support Program

PUC's project "Development of an Effective Regulatory Framework for Setting Tariffs for Energy Companies" was able to withstand international competition and gained the opportunity to participate in the EC Structural Reform Support Programme. The aim of the project is to use the international experience and advantages of a multi-sectoral regulator to move from the principle of reasonable costs and mark-up (profit) to the application of incentive regulation mechanisms in several sectors.

WATER MANAGEMENT

PUC participated in the work of the Association of European Water Regulators (WAREG), in which regulators exchanged existing experiences regarding the impact of Covid-19 on the water sector and regulators' proposals and approaches for assessing possible consequences.

PRIORITIES AND CHALLENGES FOR 2021

In 2020, the OECD started re-evaluating the development of PUC's activities in 2017-2020 to be completed in 2021. This report follows the OECD's first 2016 report on promoting the operation and development of PUC.

ELECTRONIC COMMUNICATIONS AND POSTAL SECTOR

- Implementation of the provisions of the Electronic Communications Code.
- The long-term contribution of 5G innovative technology to the EU Green Course.
- Development of ERGP proposals for a new postal directive.

ENERGY

- Implementing the conditions of the Clean Energy Package and working on EU Green Course targets.
- Further development of the single natural gas market of the Baltic States and Finland.
- Completion of the project "Development of an Effective Regulatory Framework for Setting Tariffs for Energy Companies" launched with the help of the EU Structural Reform Support Program. Recommendations for the development of an effective regulatory framework for setting tariffs for heat supply, electricity and gas distribution.

WATER MANAGEMENT

Updating the experience of WAREG Member States on water regulatory issues, including the assessment of the impact of the Covid-19 pandemic on the water management sector.

FINANCING AND SPENDING

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FINANCING AND SPENDING

In 2020, PUC carried out its activities in a separate budget programme approved by the law "On State Budget for the Year 2020". PUC'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 2018.

PUC's planned expenditures in 2020 were 5,548,155 EUR. Actual spending amounted to 5,152,985 EUR, which was 92.9% of the planned spending in the reporting year.

The actual balance of financing means¹, which in a given calendar year exceeds the costs necessary for the operation of PUC, is credited to PUC's account in the Treasury in the state fee accruals to be used for ensuring PUC's activities in future periods according to the budget of PUC approved by the law on state budget. The balance of financial resources as of 31 December 2020 in the basic budget was 309,376 EUR, which has been transferred to the account of the deposited funds of PUC and used to accrue the state fee.

The balance of financial resources as of 31 December 2020 in the basic budget was 309 376 EUR, which has been transferred to the PUC's deposited funds account and used to accrue the state fee.

Revenue and expenditure within the framework of the EU-funded institution strengthening program twinning project No IL 13 ENPI-TE 01 16 (IL/13) "Strengthening Israel's regulatory capacity in the telecommunications sector with a focus on service delivery through networks of other operators" were planned in the amount of EUR 18 693 in the reporting period. In fact, 71 255 EUR or 88.6% of the planned financial resources for the reporting period were spent. The balance of financial resources on 31 December 2020 was EUR 3 877.

Revenue and expenditure for the EU-funded institution strengthening program twinning project No UA 18 ENI TE 01 19 "Strengthening the regulatory capacity of the Ukrainian national regulatory authority in the telecommunications sector with a focus on market access and service quality monitoring system" are planned in the amount of 145 208 EUR in 2020. 58 588 EUR or 40.3% financial resources received in 2020 were actually spent in the reporting period. Last year, the balance of financial resources was EUR 86 620.

PUC's financial report 2020 was prepared in accordance with the Cabinet of Ministers Regulations No 344 "Procedure for preparing an annual report" of 19 June 2018. The financial report 2020 was submitted to the Treasury on 31 March 2020. The PUC's financial report 2020 was audited without objections by LLC D.Danēvičas revidentu birojs (licence No 33 of the sworn auditor's commercial entity).

In 2020, PUC concluded 50 economic cooperation agreements including six public procurements in accordance with the Public Procurement Law.

¹ In accordance with Article 31(7) of the Law "On Regulators of Public Utilities".

NO	FINANCIAL RESOURCES	PREVIOUS YEAR (actual numbers) *	IN THE REPORTING YEAR (EUR)	
			APROVED BY LAW	ACTUAL NUMBERS*
1.	Revenues	5 510 848	5 712 056	5 535 765
	Fee based services and other income	5 408 302	5 548 155	5 462 361
	Other previously unclassified revenue earmarked for special purposes (EU project No IL 13 ENPI-TE 01 16 (IL/13) Israel)	71 255	18 693	14 816
	Other previously unclassified revenue earmarked for special purposes (EU project No UA 18 ENI TE 01 19 Ukraine)	31 291	145 208	58 588
2.	Expenditure	5 365 672	5 712 056	5 226 389
	Administrative costs	5 104 068	5 306 825	4 912 328
	International cooperation	27 810	96 080	96 080
	Other previously unclassified expenditure earmarked for special purposes (EU project No IL 13 ENPI-TE 01 16 (IL/13) Israel)	71 255	18 693	14 816
	Other previously unclassified expenditure earmarked for special purposes (EU project No UA 18 ENI TE 01 19 Ukraine)	31 291	145 208	58 588
	Capital investments	131 248	145 250	144 577

 $[\]ensuremath{^{*}}$ in accordance with the cash flow principle