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KOMISIJA

2019 Annual Report of the Public Utilities Commission of the Republic of Latvia on the National Energy Sector, Prepared for the European Commission

CONTENT

I Foreword

The Public Utilities Commission's (hereinafter – Regulator) report provides an overview of the regulatory developments of the electricity and natural gas sectors in Latvia in 2019. Regulatory activities covered various tasks, mainly stemming from continued implementation of the European Union (hereinafter – EU) directives or regulations, both in electricity and natural gas sectors.

The most important issues within the electricity sector stemmed from the EU legislative acts: the Clean Energy Package (CEP) has entered into force and should be transposed. Therefore, a coordinated work has started, involving national regulatory authorities (hereinafter – NRAs) and Ministries of the Baltic States, working in close cooperation with other NRAs of the EU.

The Regulator continued the implementation of the European Commission's network codes to establish a unified, coordinated, and appropriate single day-ahead and intraday electricity market coupling, being more focused on security and emergency management issues in 2019.

An important step towards fulfilling the synchronization of the Baltic States' electricity systems with the electricity systems of Continental Europe in 2025 has been taken, as the second phase of the Synchronization project has been received by Regulator and the EU funding for the project should follow.

The Baltic and Finnish NRAs and natural gas transmission system operators (hereinafter – TSOs) continued work towards the creation of a regional Baltic – Finnish natural gas market to increase liquidity and competition in the Baltic – Finnish region. In 2019, all the necessary preparations were made for single natural gas transmission entry-exit system of Finland, Estonia, and Latvia (hereinafter – FinEstLat system) to become operational on 1 January 2020. With the methodology for the calculation of the tariffs on the natural gas transmission system services the Regulator had introduced new tariff setting method – revenue cap method, and for the first time the natural gas transmission tariffs have been set for a period of 33 months.

Rolands Irklis

Chair
The Public Utilities Commission of Latvia

II The basic organizational structure and competences of the regulatory authority

The Regulator was established and operates according to the Law on Regulators of Public Utilities. The goal of this law is to ensure the possibility of receiving continuous, safe and qualitative public utilities, whose tariffs (prices) conform to economically substantiated costs, as well as to promote development and economically substantiated competition in regulated sectors.

The Regulator regulates the provision of public utilities as a commercial activity in the following sectors: energy (electricity, natural gas and thermal energy), electronic communications, postal services, municipal waste management and water management, and in accordance with the Packaging Law from 1 July 2020 Regulator will be responsible for a new sector – the deposit packaging management.

According to the Law on Regulators of Public Utilities, the Regulator is an institutionally and functionally independent regulatory authority. The Regulator independently performs the functions delegated by the Law on Regulators of Public Utilities as well as other sector-specific legislation and, within the scope of its competence, takes decisions independently and issues administrative acts binding upon specific providers and users of public utilities. The Regulator's decisions may be declared unlawful and repealed only by the court.

The main functions of the Regulator are:

- protect the interests of customers and promote the development of providers of public utilities;
- determine the methodologies for the calculation of tariffs;
- determine the tariffs;
- license and register the providers of public utilities;
- examine disputes;
- promote competition in the regulated sectors;
- supervise compliance of the public utilities with the Law on Regulators of Public Utilities, special regulatory enactments of the regulated sectors, conditions of the licence or conditions of general authorisations, as well as various requirements related to quality, technical regulations and standards;
- provide public information about its activities and operations of public service providers.

According to the Cabinet of Ministers Regulations regarding types of regulated public utilities in the energy sector (electricity and natural gas), the Regulator regulates:

- the generation of electricity in power plants if the installed electric capacity is more than one megawatt;

- the generation of electricity in cogeneration mode if the total installed electric capacity of cogeneration power plant is more than one megawatt;
- electricity transmission if the voltage is 110 kilovolts and higher;
- electricity distribution if the voltage is higher than one kilovolt and does not exceed 110 kilovolts;
- the trade of electricity to any energy user;
- provision of the demand response service;
- the transmission of natural gas through pipelines;
- the storage of natural gas intended for sale in containers or storage sites;
- the distribution of natural gas;
- the trade of natural gas to any energy users, except the trade of natural gas in gas filling compression stations for vehicles;
- liquefying of natural gas or receiving, unloading, storage and regasification for further delivery to the natural gas transmission system.

The Regulator consists of a Board composed of a Chairperson and four members appointed by the Parliament for a five-year period and an executive body subordinated to the Board. The Board takes decisions on behalf of the Regulator and approves administrative acts which are binding for specific public service providers and customers. The executive body operates under the oversight of the Regulator's Board, and it serves both as a secretariat and as the provider of expert services. The executive body prepares issues and documents for examination at the Board meetings, enacts approved decisions and oversees the implementation of those decisions.

The Electricity Market Law and the Energy Law establish effective, proportionate and dissuasive financial sanctions in the electricity and natural gas sector, namely, the Regulator has the right to apply financial sanctions up to 10% from the net turnover of the previous financial year of the regulated service provider in case of failure to comply with their obligations under the relevant national and EU legal acts. Regulations of the Cabinet of Ministers set out a detailed procedure on how the Regulator must calculate the volume of fines.

As regards tariff calculation in the electricity and natural gas sector, methodologies for the calculation of storage, transmission and distribution system service tariffs have been elaborated based on the Electricity Market Law, Energy Law and the Law on Regulators of Public Utilities, and by taking into consideration regulations related to the supply and trade of electricity and natural gas, as well as other legal acts which are in force in Latvia. The main principles set out in these methodologies are the following:

- the regulated utility must clearly and unambiguously reflect the cost of each regulated service, including only those assets and activities which are related to the regulated services. The regulated utility must apply the cost allocation model according to basic principles and specifications that have been approved by the Regulator. The cost allocation model must be comprehensive and is approved by the Regulator.

- the regulatory asset base and the rate of return on capital must be used in determining capital costs. The rate of return on capital is the weighted average return rate from the rate of return that applies to equity and long-term interest rates on borrowed capital, as defined by the Regulator. The rate of return on capital is calculated for a specified proportion between equity and borrowed capital. The Regulator annually sets the rate of return on capital for each sector, the rate is applied if a new tariff proposal is submitted.
- tariffs must correspond to economically justified costs. When setting the tariff, the Regulator must perform analysis and assessment of costs and profits.

According to the existing procedure, providers of public services submit substantiated tariff proposals. The Regulator must approve or reject the proposal within 120 days. The time when public utilities prepare the requested additional information does not count towards these 120 days. The Regulator's decisions can only be challenged in court.

A service provider may submit a request to the Regulator to receive a permit to set the tariff by itself. In this case, the provider shall publish the tariffs in the official Gazette of the Government of Latvia not later than within two months prior to the entry into force of the new tariffs and shall inform the Regulator. The service provider shall submit to the Regulator a substantiation for the new tariffs and information regarding the actual costs, forecasted data regarding the new tariffs, and other documents that substantiate the need for the new tariffs. The Regulator shall, within 21 days, evaluate the conformity of the submitted tariffs to legal acts and the economic substantiation of tariffs, as well. If the Regulator has not taken a decision regarding the non-conformity of the submitted tariffs to legal acts or has not rejected the economic substantiation, the tariffs shall come into force on the date specified by the service provider.

The Regulator has the rights to initiate a tariff review if significant changes affecting income or costs of service provision are observed or might be predicted. In this case, the Regulator requests the service provider to submit a new substantiated tariff proposal.

III Major developments over the last year in the electricity and natural gas markets

International cooperation is essential to ensure that the energy market functions and develops properly. Regional cooperation on specific cross-border issues is a foundation for successful implementation of the EU legal norms at European level. In 2019, the Regulator participated in forums, conferences and workshops at international level on a regular basis.

As the Network Codes requires Agency for the Cooperation of Energy Regulators (hereinafter – ACER) or regulatory authorities to approve the terms and conditions or methodologies developed by TSOs or nominated electricity market operators (NEMO), the Regulator participated in the ACER respective working groups and in Baltic Capacity Calculation Region (hereinafter – Baltic CCR) NRAs decision-making process on the methodologies under the respective Network Code.

The position of the Baltic States NRAs has been presented on Financial arrangements for more than one NEMO in one bidding zone.

By Decision No 146 of 3 December 2015 "On Designation of a Nominated Electricity Market Operator", the Regulator appointed Nord Pool Spot AS (hereinafter – Nord Pool AS) as NEMO in the Latvian biding zone for four years until 3 December 2019. In order to designate a NEMO, which will operate in the Latvian bidding zone from 4 December 2019, the Regulator had to assess the compliance of the European Market Coupling Operator AS with the NEMO designation criteria specified in Article 6(1) of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereinafter – CACM).

Evaluating the justification submitted by European Market Coupling Operator AS for the fulfilment of each requirement specified in Article 6(1) of CACM, the Regulator concluded that European Market Coupling Operator AS meets the criteria of the CACM and decided to designate European Market Coupling Operator AS as the NEMO in the Latvian bidding zone for an indefinite period of time.

Even though the TSO is responsible for maintaining operational security in its control area, a common set of requirements and principles needs to be developed for the procedures and actions to be carried out in order to prevent the propagation or deterioration of an incident in the national system.

In view of the above, and considering the provisions of the Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration, the Regulator approved the amendments to the national Network Code in the Electricity Sector[1] setting out the terms and conditions for the defence service providers and restoration service providers, the rules for suspension and restoration of market activities as well as rules for imbalance settlement and settlement of balancing energy in case of suspension of market activities.

On 6 September 2018 the Regulator and Estonian Competition Authority took decisions on Estonia-Latvia Bidding Zone Border Specific Annex for the Baltic Capacity Calculation Region to the All TSOs' Proposal for Harmonised Allocation Rules for Long-term Transmission Rights in Accordance with Article 52(3) of Commission Regulation (EU) 2016/1719 of 26 September 2016 Establishing a Guideline on Forward Capacity Allocation[2] (hereinafter – HAR Annex).

The first yearly auctioning of PTR-Limited on Estonian-Latvian border first time took place from 23 October 2018 to 29 October 2018 on the Single Allocation Platform (hereinafter – SAP) (before

[1] https://likumi.lv/doc.php?id=257943 (available in Latvian only)

[2] http://www.ast.lv/sites/default/files/editor/metodikas/Igaunijas_-_Latvijas_robezas_pielikums.pdf

the auctioning of PTR-Limited was managed by the Latvian and Estonian TSOs) in accordance with the ACER`s decision of 2 October 2017 on Harmonised Allocation Rules for Long-term Transmission Rights[3] (hereinafter – HAR Rules) and HAR Annex. In 2019 quarterly and monthly auctions also took place. In accordance with the analyses of the yearly auction there were 20 companies participated in the auction and only 4 companies got the right to hedge the price differences on Estonian-Latvian border towards to Latvia.

In 2019, to promote the production of biogas and the development of the infrastructure for liquefied natural gas thus diversifying gas supply sources and routes, the Regulator adopted decision No 1/7 of 18 April 2019 "Regulations Regarding Natural Gas Transmission System Connection for Biomethane Producers, Liquefied Natural Gas System Operators and Natural Gas Users". The Regulations only improved and did not change the existing regulatory framework for natural gas transmission system connections, because there have been no restrictions to connect to the natural gas transmission system. These Regulations clearly and precisely define the connection process to be implemented by natural gas users, biomethane producers and liquefied natural gas system operators, ensuring its transparency, thus providing them with a well-defined operating environment.

The Baltic Electricity and Gas Market Forums take place twice a year. In May 2019, it took place in the Latvian city of Jurmala and in November it took place in Lithuanian city of Vilnius, where NRAs from the Baltic States, Poland and the Nordic countries, TSOs, NEMOs, ACER, Finnish and Lithuanian gas exchange representatives, as well as traders and representatives from the Ministries raise issues concerning Network Code implementation, technical and economic challenges in the regional energy market, implementation of Regulation on Wholesale Energy Market Integrity and Transparency (REMIT), as well as coordination and assessment of the cross-border investments of the projects of common interest and other topics that contribute to the development of the regional and EU wide energy market. Discussions regarding the European perspective on optimization of the common energy market performance, future gas market in Europe especially in the Baltic States and Finland, and liquefied natural gas as energy source and fuel are the most important topics in the Electricity and Gas Market Forums.

Subject to the conditions set out in the Regional Gas Market Development Plan, in 2019, the Regulator in close cooperation with other NRAs and the TSOs of the Baltic States and Finland during 2019 worked on concluding the necessary agreements and preparing the legal framework for the single natural gas transmission entry-exit system.

[3] https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision%2003-2017%20on%20HAR.pdf

IV The electricity market

1.1. Network regulation

1.1.1. Unbundling

The state-owned company JSC "Latvenergo" dominates in the electricity supply sector in Latvia, controlling more than 91% of the installed capacity for the generation of electricity in Latvia.

The functions of the public trader are carried out by JSC "Enerģijas publiskais tirgotājs" – the subsidiary of the JSC "Latvenergo". In accordance with the Electricity Market Law, the public trader has the obligation to buy electricity from cogeneration power plants, renewable power plants and pay a guaranteed fee for the installed capacity to plants that have obtained the right to sell the produced electricity within the mandatory procurement.

The functions of the electricity TSO are carried out by the independent system operator JSC "Augstsprieguma tīkls". JSC "Augstsprieguma tīkls" rents the network assets from JSC "Latvijas elektriskie tīkli" – the subsidiary company of JSC "Latvenergo" which was established as the transmission system owner and the Regulator has verified that JSC "Latvijas elektriskie tīkli" has an adequate level of necessary independence from the JSC "Latvenergo". JSC "Augstsprieguma tīkls" is certified as an independent transmission system operator.

JSC "Augstsprieguma tīkls" has to submit a report annually regarding the compliance of the transmission system operator with the certification requirements. After the receipt of the report, the Regulator took a decision on 3 July 2019 stating that JSC "Augstsprieguma tīkls" complies with the certification requirements.

On 19 September 2019, the Regulator approved the national ten-year transmission system development plan (national TYNDP) for 2020 – 2029. In the decision, the Regulator also stated that the national TYNDP complies with the Community-wide TYNDP.

Each year, the electricity transmission system owner JSC "Latvijas elektriskie tīkli" has to submit a report that includes information on how the electricity system owner performs its obligations set by law according to Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC. An electricity system owner shall elaborate a compliance programme, in which the duties of employees are determined, as well as measures, which shall be performed, in order to prevent discriminatory action, and provide adequate control of the compliance with it. The electricity system owner shall submit a report to the Regulator on the measures carried out, and such a report shall be published in accordance with the procedures stipulated by the Regulator. After the evaluation of the report, the Regulator shall provide an opinion on the sufficiency of the measures taken for ensuring independence. The electricity system owner shall eliminate the deficiencies indicated in the opinion of the Regulator within the time period stipulated by the

Regulator. On 3 July 2019, the Regulator took the annual decision on the independence of JSC "Latvijas elektriskie tīkli".

The electricity transmission system owner is separated from the activities of production, transmission and trade of electricity, the board members of the transmission system owner are not engaged in the structures of the vertically integrated electricity undertaking JSC "Latvenergo", the transmission system owner utilizes only such services, provided by the vertically integrated electricity undertaking, which ensure the confidentiality of commercial information, and the electricity transmission system owner has the right to take decisions independently, without interference by JSC "Latvenergo". Nevertheless, at the end of 2019, Cabinet of Ministers decided to move towards the model of full ownership unbundling, which should be finished by the end of 2020.

The dominant electricity Distribution System Operator (hereinafter – DSO) JSC "Sadales tīkls" launched its operations as a separate entity within the holding company JSC "Latvenergo" on 1 July 2007. JSC "Sadales tīkls" is unbundled from the vertically integrated undertaking's production and supply affiliates. On 1 October 2011, JSC "Latvenergo" invested all distribution network assets previously owned by JSC "Latvenergo" in JSC "Sadales tīkls".

Regarding the setting of rules on the compilation of unbundled accounts, the Regulator approves cost allocation methodologies and implements the right to request a compliance audit that is conducted by an independent auditor.

The Regulator must confirm annually that the biggest electricity DSO JSC "Sadales tīkls" has fulfilled the necessary conditions to ensure the independence requirements for the DSO in accordance with the regulations on the requirements for ensuring the independence of the DSO.

On 18 April 2019, the Regulator approved that JSC "Sadales tīkls" fulfils the requirements of the independence of an electricity DSO – it is a separate company and is unbundled from the activities of production, transmission and trade of electricity, thus confirming that board members of the electricity DSO are not engaged in the structures of the vertically integrated electricity undertaking JSC "Latvenergo" and have the right to take decisions independently from JSC "Latvenergo" regarding the distribution system assets. The DSO ensures equal access to the electricity distribution system. As mentioned above, the legislator has provided for sanctions which the Regulator can impose against companies which fail to comply with management, account unbundling or other requirements.

1.1.2. Technical functioning

1.1.2.1. Balancing

The Electricity Market Law states that the TSO is responsible for power balance in the system, as well as for providing balancing services at the transmission network level. A market participant

has the right to become a balancing service provider by entering into a balancing contract with the TSO.

Balancing and settlement procedures are set out in the national Network Code in the Electricity Sector[4]. The Network Code in the Electricity Sector determines the TSO's obligation to carry out balancing within the coordinated balancing area in cooperation with other TSOs in the coordinated balancing area in accordance with the concluded cooperation agreements. It also lays down the settlement of imbalance for the coordinated balancing area.

In 2019, complying with the provisions of the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing, the Regulator amended the Network Code in the Electricity Sector setting the terms and conditions for balancing service providers as well as for balance responsible parties.

The common Baltic States balancing market started operating on 1 January 2018. Fulfilling the requirements of the Network Code in the Electricity Sector, the Latvian TSO in cooperation with other Baltic States TSOs – Elering AS and Litgrid AB developed harmonized Baltic States balancing market rules for balance service providers and imbalance settlement for balance responsible parties, thus complying with the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing and facilitating equal opportunities to all Baltic States balancing market participants. The Baltic States balancing market rules determines the terms and conditions that are applicable for balance responsible parties in order to participate in the Baltic States balancing market and provide balancing energy upon the connecting TSO's request and that are binding for each connecting TSO in order to ensure the participation of balance responsible parties in the Baltic States balancing market.

The Baltic States imbalance settlement rules describe the imbalance settlement mechanisms between the TSO and balance responsible party including the calculation of imbalances and imbalance prices. The joint approach to the imbalance responsibility is as follows:

- the total imbalance of each Baltic State is the responsibility of the respective TSO;
- the imbalance part in the Estonian, Latvian and Lithuanian electric power systems that can be eliminated (compensated for) within the total Baltic imbalance region is referred to as the netted imbalance. The Baltic States TSOs mutually buy and sell the netted imbalance for the applicable imbalance price;
- the imbalance part that cannot be eliminated (compensated for) within the total Baltic imbalance region is referred to as the non-netted imbalance. The Baltic States TSOs jointly

[4] https://likumi.lv/doc.php?id=257943 (available in Latvian only)

buy and sell the non-netted imbalance to the open balancing service providers at a predetermined price.

In the Baltic States coordinated balancing area, the coordinated balancing control is performed. Balancing activities in the Baltic States coordinated balancing area are carried out by one of the TSOs in Baltic States coordinated balancing area in order of rotation, in cooperation with the other Baltic States TSOs, which in turn maintain the operational security of their area of responsibility and perform the necessary activities for the efficient functioning of the Baltic States balancing market. To ensure high market transparency common Baltic data platform for data publishing is used, balancing and imbalance prices and volumes, offers of balance responsible parties are published within one hour after balancing as well as monthly balancing reports are prepared by TSOs. The next envisaged step in the development of the common Baltic States balancing market development is joining European platform MARI in 2022.

The balancing prices during year 2019 (EUR/MWh)

Generally, the upward balancing price (on average 56.27 EUR/MWh) in Latvia is higher than the downward balancing price (on average 40.13 EUR/MWh). Price spikes are more frequent in summer than winter, and most often the spike price is in a range between 124.92 EUR/MWh and 129.72 EUR/MWh. The higher price is observed extremely rarely.

The national Network Code in the Electricity Sector includes procedures for the system management and utilisation, the activities of market participants, except final customers. In accordance with the national Network Code, the system operators shall perform calculations of balancing openly and without discrimination with respect to all recipients of a balancing service. The customers and producers, who are market participants, and DSOs, have the duty to pay for the balancing service the scope of which is determined on the basis of the data of the transmission and distribution operators. The TSO shall ensure the compliance with the procedures specified in

the national Network Code in the Electricity Sector. The Regulator may task the TSO to elaborate amendments to the national Network Code and determine a time period for the elaboration and submission thereof to the Regulator.

The Electricity Market Law sets out guidelines in terms of how the balancing arrangements among customers, producers and system operators should be provided. Customers and producers that are market participants, along with distribution networks, will have to conclude a balancing service agreement with the system operators of the network that they are connected to.

The TSO is responsible for the operational reliability of the power system. For this purpose, the TSO has an open supply agreement and maintains operating reserves. Furthermore, those customers, large electricity producers and distribution networks which are directly connected to the transmission grid obtain balancing services directly from the TSO after concluding the relevant agreement. The concept of a balancing group has also been set out in law. The idea is that customers have the right to delegate a supplier to settle imbalances with the system operator. In such a case, the supplier concludes a balancing service agreement with the system operator, and it may carry out the netting of imbalances among customers and producers.

The balancing model at the distribution level does not differ from the one at the transmission level. Customers and producers directly connected to the distribution grid have to buy the balancing service from the respective DSO, or they may delegate this task to their supplier. The trader's price for end users may also include the balance energy costs, if the trader has an agreement on balancing the end user.

According to the Electricity Market Law, administration of imbalance settlements is the responsibility of the TSO. The balance settlement is provided on an hourly basis.

The TSO publishes balance energy purchase and selling prices on an hourly basis and customer costs for balancing energy are calculated in accordance with balance energy calculation methodology published on the TSO web page.

1.1.2.2. Quality of service and supply

Quality requirements are defined in the Rules on Public Power Supply Network Voltage Requirements adopted by the Cabinet of Ministers[5]. Rules prescribe the mandatory applicable standard that applies to the public power supply network voltage, which is the European Standard EN50160. Standard EN50160 defines, describes and specifies the main characteristics of the voltage at a network user's supply terminals in public low voltage, medium and high voltage alternating current electricity networks under normal operating conditions. In 2019, the average

[5] https://likumi.lv/doc.php?id=237330 (available in Latvian only)

amount of time needed for repairs in the distribution network for the final customers (including all events) was 2.65 hours per one interruption. There were 11 interruptions in the transmission network with an average duration of 0.47 hours. Planned system average interruptions duration (SAIDI) in the distribution network for 2019 was 123 minutes, unplanned (including all events) – 123 minutes and planned system average interruptions frequency index (SAIFI) per customer for 2019 was 0.568, unplanned (including all events) – 2.089.

The operations of public service providers are regularly inspected on the basis of the Regulator's decisions. In 2019, 36 objects of electricity supply companies were inspected in order to examine their operations and compliance with license requirements or general authorisation conditions. The objects of the companies were inspected according to the schedule and taking into regard the necessity to ascertain the operation of the companies in accordance with legislation. In addition, the Regulator carried out electricity supply quality measurements in 48 objects according to the European Standard EN 50160 requirements. Some inspections were also conducted at facilities following the complaints that had been received.

On 2 November 2017, the Regulator initiated an administrative (infringement) process against the electricity DSO – JSC "Sadales tīkls" in order to evaluate, whether JSC "Sadales tīkls" fulfils the legal requirements laid down in the "Regulations regarding system connection for electricity producers". According to the information the Regulator had, not in every system connection building process JSC "Sadales tīkls" fulfilled all the duties that are stipulated by law – in many cases there were problems with documents, not in all cases the DSO checked whether the electricity producer connected to the system the same generation facility that was tested before, etc. Hence, the Regulator stated, that JSC "Sadales tīkls" committed several violations of regulatory enactments. The administrative process was completed with the conclusion of an administrative agreement between the Regulator and the DSO. The DSO is committed to remedy the identified deficiencies within the time limits specified by the Regulator.

1.1.3. Network tariffs for connection and access

The Regulator approves electricity transmission and distribution tariffs. Within the framework of the tariff assessment process of the electricity transmission system service, the Regulator has an obligation to assess the justification of the costs of the electricity TSO, thus balancing the interests of public service users and service providers and protecting the interests of the electricity TSO in matters related to the provision of the relevant services. The Regulator allowed JSC "Augstsprieguma tīkls" to use congestion-management revenues till 2019 to ensure the stability of transmission tariffs.

The tariffs of the electricity distribution system services are structured so that the incentive to decrease the connection capacities as a result of evaluation of requested power capacity if not all the capacity is being used efficiently is in place. That incentivises not only the electricity users to choose more appropriate capacities and avoid overpaying for inefficiently burdened infrastructure,

but also positively impact the distribution system allowing the distribution system operator to reassess and reduce the investment needed for distribution system development. Over the three-year period after the tariff structure was changed, more than 20,000 consumers reviewed capacities, which has resulted into an overall capacity reduction of more than 11%. Therefore, the system has become more efficient and released capacities might be allocated to new customers.

In October 2019, the tariff calculation methodology for electricity distribution system services have been amended, introducing regulatory revenue cap and stating that also electricity producers should pay for distribution system services.

In November 2019, the new electricity DSO tariffs were set for the largest electricity DSO – JSC "Sadales tīkls", applicable from 1 January 2020, also the new tariffs which will enter into force in 2021, have been set for electricity producers. A five year regulatory period has been introduced with a respective revenue cap and yearly efficiency factor of 2.57% for total costs. The tariffs were reduced for all consumers in comparison with previously set tariffs. The electricity distribution charge, depending on the consumer tariff plan and voltage level, was reduced from 7% to 20%, while the connection capacity charge remained the same for all consumers. While setting the new electricity distribution tariffs for JSC "Sadales tīkls" the Regulator also assigned JSC "Sadales tīkls" to revaluate their regulatory asset base until 1 October 2020.

On 28 August 2019, the Regulator approved the weighted average cost of capital (hereinafter – WACC) for the electricity distribution system operators and the TSO. For year 2020, the WACC for micro and small electricity DSOs is 5.03% and for medium and large DSOs and the TSO the WACC is 3.31%. The approved WACC relates to the electricity TSO – JSC "Augstsprieguma tīkls" and the authorised DSOs. When evaluating the TSO and DSOs tariffs, the Regulator, by checking the justification of the costs, may propose a review of tariffs in response to changes in factors which influence tariffs, including profitability.

According to the Eurostat data for 2019, electricity prices for household users in Latvia were about 13% lower and for non-household users about 18% higher than in the EU countries.

1.1.4. Cross-border issues

1.1.4.1. Management and allocation of interconnection capacity and congestion management mechanisms

In 2019, the Regulator continued the work on the implementation of EU Network Codes requirements. Regulator had approved the following terms and conditions or methodologies developed by TSOs and NEMOs in accordance with EU Network Codes:

- The Baltic CCR TSOs amended proposal for all Baltic CCR TSOs' common methodology for coordinated redispatching and countertrading in accordance with Article 35 of CACM;

- Amendment to the proposal for cross-zonal capacity allocation and other arrangements concerning more than one NEMO in the Latvian bidding zone in accordance with Articles 45 and Article 57 of the CACM;

- All TSOs' proposal for a methodology for calculating scheduled exchanges resulting from single day-ahead coupling in accordance with Article 43 of CACM;

- All TSOs' proposal for a methodology for calculating scheduled exchanges resulting from single intra-day coupling in accordance with Article 56 of the CACM;

- All Baltic CCR TSOs' common methodology for redispatching and countertrading cost sharing in accordance with Article 74 of the CACM;

- Second amendment to the proposal for cross-zonal capacity allocation and other arrangements concerning more than one NEMO in Latvian bidding zone l in accordance with Article 45 and Article 57 of CACM;

- All TSOs' proposal for the key organisational requirements, roles and responsibilities (KORRR) relating to data exchange in accordance with Articles 40(6) of Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation.

After a positive outcome of the Energy Regulatory Forum on all TSOs' proposal in accordance with Article 57 of the FCA, on 13 June 2019, the Regulator approved the Congestion Income Distribution Methodology.

The type of long-term transmission rights (hereinafter – LTTRs) offered in the Baltic CCR are financial transmission rights – options in the direction from Estonia to Latvia and the form of product is base load with fixed amount of MW. The regional design of LTTRs does not apply to bidding zone borders for which the NRAs have adopted coordinated decisions not to issue LTTRs, therefore the regional design is covered by Estonia and Latvia bidding zone border.

Power exchange "Nord Pool AS" (hereinafter – NP) ensures allocation of the capacity for the market participants on the basis of information provided by the Baltic States TSOs and according to the Rules. NP ensures implicit auctions between the Baltic States. As stipulated in Article 37³of the Electricity Market Law, the transactions of market participants, which exceed borders of one bidding area and include the physical transmission of electricity, must only be performed in the power exchange.

In 2019, the Baltic States had a congestion at the Estonian and Latvian interconnection for 29% of the total time of the year on average, with an increase of 3% compared to 2018.

The Net Transfer Capacity (NTC) between the Estonian and Latvian systems will continue to be distributed for allocation. At the same time, PTR limited (300 MW on annual, 50-100 MW on

quarterly and 100-152 MW on a monthly basis) is sold at an auction with the obligation to sell them back to the TSOs. For the repurchased capacity, the TSOs will pay to the holders of PTR limited a fee equivalent to the price difference of the NP Estonian and Latvian price area in the corresponding period. The PTR limited auctions for the year 2019 are organized by Joint Allocation Office (hereinafter – JAO). On 1 October 2018, JAO became the Single Allocation Platform (SAP) for all European TSOs that operate in accordance with EU legislation, since it is able to implement and fulfill all regulatory obligations and requirements. The auctions in the SAP doubled the number of the participants and increased competition for volume offered by TSOs.

Due to the PTR limited auctions for the year 2019 the Regulator and Estonian regulator received the complaint from auction participant. Deeply involvement in the investigation of the complaint with the Commission Regulation (EU) 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council Text with EEA relevance, the NRAs concluded that the Regulation on the submission and publication of data in the electricity markets allows exceptions for TSOs not to report a specific asset if the information is considered confidential in the country concerned. On the other hand, the results of the auction could be challenged, which was not done by the auctioneer.

The total amount of Latvia's interconnection capacity in 2019 was 2,113 MW for export and 1,684 MW for import. In 2019, the total amount of incoming energy was 1,629 GWh, outgoing energy was 3,493 GWh, and the amount of transit was 2,982 GWh.

1.1.4.2. Investment plans and projects of common interest

Taking into account the investment request for cross-border cost allocation for the projects of common interest included in the project cluster No.4.8 "Integration and synchronisation of the Baltic States' electricity system with the European networks" (hereinafter – Project cluster 4.8) from the project promoters – Baltic TSOs (Elering AS, JSC "Augstsprieguma tīkls" and Litgrid AB), on 6 September 2018, the Regulator took a decision on phase 1 regarding the allocation of the investment costs for the Project cluster No.4.8 pursuant to the Regulation (EU) 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 (hereinafter – Regulation 347/2013). On 8 November 2019, the Regulator received from Baltic TSOs and TSO of Poland the investment request for phase 2 of the Project cluster 4.8.

The implementation of the Project cluster 4.8 is an important prerequisite for maintaining reliable and stable operation of the electric power systems of the Baltic States after they begin working synchronously with Continental Europe, which is planned for 2025. Furthermore, the implementation of the Project cluster 4.8 will improve the reliability of electric power supply of the entire Baltic region, ensuring effective operation of the electric power market both in the Baltics

and the Nordic countries. It will also strengthen the electric power system of the Baltic States and its connections to the electric networks of the Nordic countries and Continental Europe, serving as a reliable and stable alternative route for importing or exporting electric power from the Nordic countries to Europe.

All the following projects of common interest are included in the national TYNDP and Community wide TYNDP.

Pursuant to Regulation 347/2013, the Project of Common Interest No.4.2.1 "Interconnection between Kilingi – Nõmme (EE) and Riga CHP 2 substation (LV)" (hereinafter – Project 4.2.1) and the Project 4.2.2 "Internal Line between Harku and Sindi (EE)" (hereinafter – Project 4.2.2), the Project 4.2.3 "Internal line between Riga CHP 2 and Riga HPP (LV)" (hereinafter – Project 4.2.3) (hereinafter altogether referred to as Projects 4.2) and the Project No.4.8.1 "Interconnection between Tartu (EE) and Valmiera (LV)" (hereinafter – Project 4.8.1), the Project 4.8.3 "Interconnection between Tsirguliina (EE) and Valmiera (LV)" (hereinafter – Project 4.8.3) and the Project 4.8.9 "Further infrastructure aspects related to the implementation of the synchronisation of the Baltic States' system with the continental European network" (hereinafter – Project 4.8.9), are part of the priority electricity corridor of the Baltic Energy Market Interconnection Plan in electricity, specified in Annex I.4 of Regulation 347/2013: interconnections between Member States in the Baltic region and reinforcing internal grid infrastructures accordingly, to end isolation of the Baltic States and to foster market integration inter alia by working towards the integration of renewable energy in the region. The Project of Common Interest No.4.4.1 "Internal Line between Ventspils, Tume and Imanta (LV)" was commissioned at the end of 2019 and now it is possible to install more offshore and onshore wind power plants in the Latvian region with the most favourable wind flows for wind generators.

Pursuant to Article 3(4) of Regulation 347/2013, the European Commission adopted the Commission delegated Regulation (EU) 2020/389 of 31 October 2019 amending Regulation (EU) No 347/2013 of the European Parliament and of the Council as regards the Union list of projects of common interest (hereinafter – EC Regulation 2020/389). The European Commission approved the fourth list of projects of common interests including the Projects 4.2, Project 4.8.1 and Project 4.8.3. The inclusion of the Projects 4.2, Project 4.8.1, Project 4.8.3 and Project 4.8.9 in the fourth projects of common interest list demonstrates their compliance with the projects of common interest criteria set out in Article 4 of Regulation 347/2013.

Pursuant to Article 16 of Regulation (EC) 714/2009 (date of end of validity: 31 December 2019), accrued revenues resulting from congestion management were invested to increase the capacity of the Latvian – Estonian interconnection, namely, to implement the Project 4.2.1 and Project 4.2.3, and for reconstruction of the interconnections between Tartu (EE) and Valmiera (LV), Tsirguliina (EE) and Valmiera (LV) in territory of Latvia (Project cluster 4.8).

Under the 2017 Connecting Europe Facility (hereinafter – CEF) call, Project cluster 4.8 received maximum EU financial assistance for Environmental Impact Assessment and Right-of-way studies of Projects 4.8.1 and 4.8.3 in the territory of Latvia (EUR 125,000) and for Study on Dynamic behaviour of synchronously interconnected Baltic States and Continental European electricity network in the amount of EUR 125,001 (Project cluster 4.8). On January 23, 2019, the Project 4.8.1, Project 4.8.3 and Project 4.8.9 received the maximum EU financial assistance in the amount of 75% (57.75 million EUR for the territory of Latvia).

1.2. Promoting competition

The electricity market was opened on 1 July 2007, when all customers became eligible to choose a supplier of electricity. There are several companies in Latvia which sell electricity to market participants. In 2019, five largest electricity traders in the whole retail market by volume were JSC "Latvenergo", "Enefit" Ltd, "Ignitis Latvija" Ltd, "AJ Power" Ltd and "Scener" Ltd.

	2018	2019
Herfindahl-Hirschman Index:	high	high
Households	8 390	7 566
Legal entities	3 094	2 946
Registered suppliers	33	37
Contracts, households:	934 317	928 303
Fixed price	849 326 (91%)	829 957 (89%)
Variable spot price	84 991 (9%)	98 346 (11%)
Contracts, legal entities:	33 322	34 879
Fixed price	20 879 (63%)	20 705 (59%)
Variable spot price	12 443 (37%)	14 174 (41%)

There is still high domination of the former incumbent in the market, nevertheless the market becomes more active both by suppliers and consumers, which is reflected by the decreasing Herfindahl-Hirschman Index and the growing share of variable spot price-based contracts.

JSC "Latvenergo" owns the biggest electricity DSO – JSC "Sadales tīkls". In addition, there are 10 local distribution companies, serving less than 100,000 electricity customers.

1.2.1. Description of the wholesale market

In 2019, 37 companies were registered as traders of electricity and 27 of them actively operate as intermediaries in the supply of electricity customers. Electricity generation in Latvia is almost entirely carried out by JSC "Latvenergo" producing approximately 88% of the total consumed electricity. The other electricity producers are too small to offer significant volumes of energy for potential customers.

In Latvia, 13 traders were trading electricity in NP during 2019 and 100% of the total electricity consumed in Latvia was traded through NP.

In 2019, the total annual consumption, including losses and self-consumption was 7,296 GWh and the amount of installed available generation capacity was 2,937 MW. Latvia produced 6,407 GWh of electricity, imported 4,612 GWh from the Nordic countries, and exported 3,494 GWh. 142 small hydroelectric power plants that generate electricity operate in Latvia. They have a total capacity of 28 megawatts (MW). There are 4 hydroelectric power plants with a capacity of more than 1 MW and have a total capacity of 1,558 MW. 37 wind power plants with a total capacity of 78 MW and 175 co-generation stations with a total installed capacity of 1,270 MW (including natural gas, biomass and biogas power plants) operate in Latvia.

JSC "Latvenergo" produces about 88% of the total generation amount in the country and is the only company in Latvia that has a share of more than 5% of the installed available capacity.

In 2019, 7,302 GWh of electricity were bought and 5,996 GWh were sold in the NP's Elspot market. The average spot price of electricity has decreased by 7% from 49.90 EUR/MWh in 2018 to 46.28 EUR/MWh in 2019. The main reason for such a decrease is related to the weather conditions – 2019 was a good year for running hydro generation and due to the warm winter and relatively low natural gas wholesale price created price scissors that reflected in the electricity wholesale price in the NP Elspot market.

There were no major acquisitions or mergers in the electricity sector in Latvia in 2019.

1.2.2. Description of the retail market

In 2019, electricity supply companies supplied 6,801 GWh to their customers (Regulator's data). Most of household customers consume a comparatively small volume of electricity (about 150 kWh per month).

At the end of the reporting year, there were 70 companies registered in the electricity producers' register – 52 for co-generation plants, 19 for wind power plants, and two for hydroelectric power plants. In 2019, the Regulator registered nine new electricity traders. At the end of the reporting

year, 37 companies were registered in the electricity traders' register and 11 licences were issued for the distribution of electricity and one licence for the transmission of electricity.

The Latvian electricity consumption structure in 2019 was as follows:

- households – 24%;
- non-household users – 76%.

In 2019, 100% of total electricity was traded in the electricity market at contract prices in accordance with bilateral agreements and 57% of that electricity was traded by the dominant trader in the market - JSC "Latvenergo", and the remaining 43% – by other traders. During the year, 4.9% of all households and 12.23% of all non-household users changed electricity trader. Serving customers and billing is traders' responsibility, therefore internal policies for setting a market offer are taken into consideration. However, the regulation states that a universal offer must be included in the product portfolio for all traders willing to supply households. A universal offer is defined as one which comes with a fixed electricity price for a period of 12 months and does not contain any restrictions on early termination of the contract (no penalty for customer). Nevertheless, products with a fixed price for different time periods and products with a variable power exchange price are offered in the market.

1.3. Security of supply

The total electricity consumption including losses and self-consumption in 2019 amounted to 7,296 GWh. Peak load in 2019 was 1,214 MW. Forecasts for the peak loads in years 2020 - 2021 are as follows:

- 2020 – 1,314 MW;
- 2021 – 1,342 MW.

The currently available generation capacity amounts to 2,937 MW.

Each year, the TSO shall prepare an annual evaluation report and shall assess the security of supply of electricity and the production capacity for a 10-year period.

There are 11 DSOs, and their license conditions state that they must supply all customers with electricity and connect new customers in their licensed zones of operations. JSC "Sadales tīkls" was the biggest DSO in Latvia in 2019 covering around 99% of the whole territory of Latvia.

The total capacity of the transmission network is currently 9,338 MVA, which is almost eight times more than the peak load in 2019. This ensures a continuous supply of electricity.

V The natural gas market

According to Article 7(1) of Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC, the regulatory authorities shall cooperate with each other for the purpose of integrating the national markets at one or more regional levels, as a first step towards the creation of a fully liberalised internal market. The cooperation of transmission system operators at a regional level shall be promoted and facilitated, including fostering of the consistency of the legal, regulatory and technical frameworks.

Facilitating free movement of natural gas within the region and preventing discrimination of supply routes, lowering barriers for new market entrants, promoting more competition and ensuring higher marker liquidity as well as ensuring better utilization of the existing infrastructure – these are the main objective for the single natural gas transmission entry-exit system development in the Baltic States and Finland.

As in 2019, the NRAs and TSOs of Latvia, Estonia and Finland continued work towards the establishment of the FinEstLat system by 2020.

A supporting opinion of the Regulator and the Estonian NRA was key for the development of the Agreement on the Implementation of Inter-TSO Compensation (ITC) Mechanism, signed by the TSOs of Estonia, Finland, and Latvia on 14 February 2019.

Amendments to the Energy Law of 17 October 2019 removed obstacles to the establishment of a single natural gas transmission entry-exit system. According to the amendments to the Energy Law, if natural gas TSOs have agreed on the establishment of a single natural gas transmission entry-exit system, the Regulator shall agree with the NRAs of the relevant EU Member States on setting natural gas transmission system service tariffs in the single natural gas transmission entry-exit system. In addition, the amendments to the Energy Law requires that TSOs of the single natural gas transmission entry-exit system shall develop and the relevant NRAs shall approve the regulations for the use and balancing of the single natural gas transmission entry-exit system.

2.1. Network regulation

2.1.1. Unbundling

Natural gas market was opened on 3 April 2017. The legislator considered that the most effective solution was the full ownership unbundling of the single natural gas transmission and storage system operator from the energy production, distribution, and trading activities.

The unbundling of the single natural gas transmission and storage system operator JSC "Conexus Baltic Grid" was completed by 31 December 2017. As regards the system operators' status, it is important to mention that the ownership unbundling of the single natural gas transmission and

storage system operator is deemed complete when this operator fulfils all the certification requirements specified in the Energy Law. An operator must be certified before it is approved and designated as a transmission system operator. The Regulator took a decision in September 2018 stating that JSC "Conexus Baltic Grid" is certified with conditions according to which it should be ensured starting from 1 January 2020 that party which controls the energy supplier is not capable to control JSC "Conexus Baltic Grid" directly or indirectly, and that direct or indirect activities of financial institutions and the merchants established for specific purpose represented in JSC "Conexus Baltic Grid" do not cause any conflict of interest between JSC "Conexus Baltic Grid" and the merchant which is engaged in the production and trade of electricity or natural gas. Furthermore, the Regulator imposed a legal obligation stipulating that the Regulator must be informed on the progress of execution once in two months.

In addition, the decision taken by the Regulator was challenged in court by JSC "Conexus Baltic Grid". Nevertheless, in September 2019 the Administrative regional court rejected the JSC "Conexus Baltic Grid" application and came to conclusion that the Regulator's decision was legal and binding. JSC "Conexus Baltic Grid" submitted a cassation complaint about the Administrative regional court's judgement though, and the case is still pending. Furthermore, JSC "Conexus Baltic Grid" submitted a request to extend the fulfillment of the certification conditions in the end of 2019, but the request was rejected by the Regulator in the beginning of 2020.

In the process of annual evaluation, the Regulator took a decision in October 2019 stating that JSC "Conexus Baltic Grid" complies with certification requirements with two conditions – first the aforementioned conditions coming from the initial Regulator's decision and one new added regarding the service provider for the supervision of the Incukalns Underground Gas Storage (hereinafter – Incukalns UGS).

According to the legal regulation of the Energy Law, if a natural gas DSO is vertically integrated in the energy supply company, this operator is a separate corporation with an independent legal personality and separated from the activities of natural gas production, transmission, storage, and LNG service provision and trading, and this in communication and in establishing its brand ensures that its identity is separate from the identity of the trading structure of the vertically integrated natural gas supplier. DSO JSC "Gaso" is the subsidiary of the trading company JSC "Latvijas Gāze". On 25 April 2019, the Regulator approved that JSC "Gaso" fulfils the requirements of the independence of a gas DSO.

2.1.2. Technical functioning

2.1.2.1. Balancing

According to the Energy Law, balancing of the natural gas supply system must be ensured by the natural gas TSO. The balancing responsibilities of system users and the procedure for the calculation of the daily imbalance charge by the TSO is determined in the Regulations of Use of the Natural Gas Transmission System. According to the Regulations, the TSO performs the

technical balancing of the transmission system if required pursuant to the Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a Network Code on Gas Balancing of Transmission Networks. The TSO is maintaining a balancing portfolio system. After the conclusion of a balancing agreement, the TSO creates the system user's balancing portfolio.

The balancing period is a gas day and the balancing area is the TSO's natural gas transmission license area. The TSO calculates the gas day imbalance amount for the system user's balancing portfolio as difference between the quantities of natural gas injected into the transmission system and extracted from the transmission system.

When determining the imbalance charge, it is considered that the TSO sells to the system user the missing natural gas, if the imbalance quantity is negative, and purchases from the system user the spare natural gas, if the imbalance quantity is positive, thus ensuring the balance of the system user's quantities of natural gas injected into the transmission system and extracted from the transmission system.

Purchase price of natural gas for calculation of the imbalance price for the gas day is the highest from the following prices of natural gas:

- price of natural gas, for which the TSO has purchased natural gas from natural gas traders selected in accordance with the procedure determined in the Public Utility Providers Procurement Law or natural gas on exchange in the Latvian trade area, in order to ensure technical balancing of the transmission system;
- the average weighted price of natural gas of the relevant day on the natural gas exchange in the Latvian bidding zone by adding the adjustment in the amount of three percent;
- if no transaction is performed on the relevant day on the natural gas exchange in the Latvian trade area, then the price of natural gas, for which the transmission system operator offers to acquire natural gas from traders of natural gas, selected in accordance with the procedure determined by the Public Utility Providers Procurement Law, shall be used for calculation of purchase price of natural gas for the gas day D for determination of the imbalance charge.

Sales price of natural gas for calculation of the imbalance charge for the gas day D is the lowest from the following prices of natural gas:

- price of natural gas, for which the transmission system operator has sold natural gas from natural gas traders selected in accordance with the procedure determined in the Public Utility Providers Procurement Law or natural gas on exchange in the Latvian trade area, in order to ensure technical balancing of the transmission system;

- the average weighted price of natural gas of the relevant day on the natural gas exchange in the Latvian bidding zone by deducting the adjustment in the amount of three percent;
- if no transaction is performed on the relevant day on the natural gas exchange in the Latvian trade area, then the price of natural gas, for which the transmission system operator offers to acquire natural gas from traders of natural gas, selected in accordance with the procedure determined by the Public Utility Providers Procurement Law, shall be used for calculation of sales price of natural gas for the gas day D for determination of the imbalance charge.

Daily imbalance charge for the system user during the balancing period for the imbalance quantity of the system user is equal to the product of the daily imbalance quantity of the network user's balancing portfolio and purchase or sales price of natural gas.

Considering the different level of natural gas market maturity in the countries of FinEstLat system and following the stepwise integration approach, during the transition period two balancing areas were set up within the FinEstLat system – the common Estonian-Latvian balancing zone and the Finnish balancing zone.

For the implementation of the common balancing zone, TSOs of Estonia and Latvia prepared and the Regulator (Regulator's decision No 164 and No 165 of 28 October 2019) and Estonian NRA approved "Common regulations for the use of natural gas transmission system" and "Common regulations for the natural gas balancing of transmission system", which entered into force on 1 November 2019 with the full application as of 1 January 2020.

2.1.2.2. The quality of service and supply

The operations of public service providers are regularly inspected on the basis of the Regulator's decision. In 2019, 47 facilities of the DSO – JSC "Gaso" and TSO – JSC "Conexus Baltic Grid" were inspected in order to examine the company's operations and compliance with license requirements or general authorisation conditions. The facilities of the JSC "Gaso" and JSC "Conexus Baltic Grid" were inspected according to the schedule and taking into regard the necessity to ascertain the operation of the companies in accordance with legislation.

In 2019, the average amount of time needed for repairs in the distribution network for final customers was 1.47 hours per one interruption. The planned system average interruptions duration (SAIDI) in the distribution network for 2019 was 56 minutes, unplanned – 0.09 minutes and planned system average interruptions frequency index (SAIFI) per customer for 2019 was 0.48, unplanned – 0.001053.

2.1.3. Network tariffs for connection and access

The Regulator is responsible for the preparation and approval of calculation methodologies for natural gas transmission, storage, distribution system service tariffs and natural gas price for captive consumers and approval of the corresponding tariffs. According to the Energy Law, captive consumers are households – they have a right to choose to become a market participant or receive gas at a regulated price.

In 2019, the natural gas transmission tariff calculation methodology was amended.

On 15 February 2018 natural gas distribution system operator JSC "Gaso" submitted to the Regulator a proposal for new natural gas distribution tariffs. On 25 September 2018, the Regulator approved new distribution system tariffs establishing a new tariff structure and included a fixed fee for all groups of users, where all users cover the maintenance costs of the distribution system. The new tariffs entered into force on 1 January 2019. The tariff period was set for two years, but the Regulator allows the system operator to calculate new tariff values itself, if natural gas consumption changes by more than 5% compared to estimates. The cost base will remain the same as it was set in the calculation of tariffs. Tariffs will be recalculated using actual natural gas volumes.

In December 2019, new tariff values for natural gas DSO were set from 1 January 2020 not applied for consumers who use natural gas seasonally. New tariff values were set for the tariff variable part while the tariff fixed part remained the same as set previously.

NRAs of FinEstLat system including the Regulator agreed on the following natural gas transmission system service tariff setting principles in FinEstLat system:

- interconnection points within the FinEstLat system are eliminated, including the interconnection point to/from Incukalns UGS facility;
- Postage Stamp methodology applied separately in each country;
- flat entry tariffs are set across the FinEstLat system through benchmarking and rescaling;
- resulting entry tariffs revenue shared through Inter-TSO Compensation (ITC) mechanism according to the proportions of the nationally consumed natural gas volumes;
- exit tariffs are set to recover each TSOs remaining transmission revenue;
- non-transmission revenues are treated nationally.

In 2019, based on the selected tariff model for the FinEstLat system, the Regulator amended the methodology for the calculation of the tariffs on the natural gas transmission system service and approved the transmission tariffs applicable from the 1 January 2020, taking into account all

measures specified by the Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (hereinafter – TAR Network Code) – the consultation on the application of the methodology for the calculation of the tariffs on the natural gas transmission system service pursuant to Article 28 and 26 of TAR Network Code was carried out and the decision on the methodology was taken based on the ACER Report – the analysis of the public consultation document for Latvia.

New natural gas transmission system service tariffs were set using the revenue cap regulatory approach for the first time for a 33 month regulatory period. The same tariff was set at the FinEstLat system entry points located in Latvia as at the other FinEstLat system entry points, but a discount of 100% was applied for the tariffs for an entry point from the Incukalns UGS and an exit point to the Incukalns UGS.

On 26 April 2018, the Regulator approved the new storage service tariffs. Tariffs for 2018/2019 storage cycle entered into force from 1 June 2018. The approved tariffs were established under Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005. The market product is offered as an interruptible product. The Regulator sets the lowest possible price of the market product and the price is being revised once a week depending on natural gas winter and summer spread in the exchange "Gaspool" trading zone.

On 23 October 2018, JSC "Conexus Baltic Grid" submitted a request to the Regulator for the approval of the new storage capacity tariff values for 2019/2020 storage cycle. On 14 December 2018, the Regulator approved the application of natural gas storage tariffs submitted by JSC "Conexus Baltic Grid" for 2019/2020 storage cycle and the long-term storage product tariff. The storage system operator offers the bundled capacity product, and from 13 January 2019 until 31 August 2019 the market product, allowing natural gas to be injected in the reserved storage volume up to the end of the injection cycle.

The tariff period is set for three years. Every year until 30 December the storage system operator shall submit to the Regulator the new bundled capacity product values and until 1 March the lowest value of the market capacity product.

The lowest price for the market product in 2019/2020 storage cycle was set at 1.38 EUR/MWh. The bundled capacity product is an uninterrupted product, which has priority during the injection season and during the application of virtual flows. The price of the bundled capacity product at the beginning of the season was set at 3.52056 EUR/MWh, with the possibility to decrease, if demand for the storage exceeds the predicted volume. Till 15 October, the storage operator shall gather all information about the reserved products and if the revenues from reservations except those of the bundled capacity product are higher than it was predicted, all additional revenues shall be attributed to the tariff reduction of the bundled capacity product. This means that the system user's demand for storage service exceeds the actual storage capacity and the storage

operator gathers more revenues than was allowed. All additional revenues were attributed to tariff reduction of the bundled capacity product. The applicable tariff for the bundled capacity product in 2019/2020 storage cycle was 0.82397 EUR/MWh. The value of the two-year bundled capacity product (long term storage product) tariff for the combined storage cycle 2019/2020 and 2020/2021 was set at 4.90056 EUR/MWh.

Approved bundled capacity and market product tariffs in the capacity reservations are applied since 15 January 2019, nevertheless injection might start only from beginning of injection season.

On 28 August 2019, the Regulator set the WACC for the natural gas transmission, distribution and storage system operator. For year 2020 the WACC is set 5.06% for micro and small companies and 3.33% for medium and large companies.

2.1.4. Cross border issues

Taking into account the investment request for cross-border cost allocation for the project of common interest No.8.2.4 "Enhancement of Incukalns Underground Gas Storage" (hereinafter – Project 8.2.4) from the project promoter JSC "Conexus Baltic Grid", on 4 October 2018, the Regulator took a decision regarding the allocation of the investment costs for the Project 8.2.4 pursuant to the Regulation 347/2013, and the project received EU financial assistance. On 30 May 2019, the Regulator took a decision regarding the allocation of the investment costs for the Project of Common Interest No.8.2.1 "Enhancement of Latvia — Lithuania interconnection" (hereinafter – Project 8.2.1), and the project received the EU financial assistance. Previously, the Project 8.2.1 received EU financial assistance for The Feasibility Study and Cost-Benefit Analysis for the Enhancement of Latvia-Lithuania Interconnection.

Pursuant to Regulation 347/2013, the Project 8.2.1 and Project 8.2.4 are part of the priority gas corridor of the Baltic Energy Market Interconnection Plan in gas, specified in Annex I.8 of Regulation 347/2013: gas infrastructure to end the isolation of the three Baltic States and Finland and their dependency on a single supplier, to reinforce internal grid infrastructures accordingly, and to increase diversification and security of supplies in the Baltic Sea region.

Pursuant to Article 3(4) of Regulation 347/2013, on 31 October 2019, the European Commission adopted the Commission delegated Regulation (EU) 2020/389 of 31 October 2019 amending Regulation (EU) No 347/2013 of the European Parliament and of the Council as regards the Union list of projects of common interest with the fourth list of projects of common interests including the Project 8.2.1 and Project 8.2.4. The inclusion of the mentioned projects in the fourth projects of common interest list demonstrates their compliance with the projects of common interest criteria set out in Article 4 of Regulation 347/2013.

2.2. Promoting competition

2.2.1. Description of the wholesale market

On 3 April 2017, the natural gas market in Latvia was opened. All the natural gas users have the right to freely choose a natural gas trader. In 2019, 22 companies were registered as natural gas traders, of which 16 were active in 2019. In 2019, 14,511 GWh of natural gas were imported by the incumbent JSC "Latvijas Gāze" and seven other traders (JSC "AJ Power Gas", LLC "Elenger", ASA "EQUINOR", LLC "Ignitis", LLC "IMLITEX LATVIJA", JSC "Latvenergo " , LLC "Scener").

Latvia's natural gas supply system pipeline networks have three international connections; the capacity of the existing interconnections is as follows:

- cross-border connection with Russia – up to 192 GWh/day;
- cross-border connection with Estonia – up to 79 GWh/day;
- cross-border connection with Lithuania – up to 67 GWh/day.

The cross-border connections with Russia and Lithuania provide the ability to supply natural gas in both directions – to Latvia's natural gas supply system and from it, thereby ensuring the security of supply of natural gas in Latvia. The cross-border connection with Estonia provides the ability to supply natural gas from Latvia.

Natural gas is supplied to Latvia along a Latvian-Russian pipeline only during the warm period of the year (April-September), and it is accumulated in the Incukalns UGS facility. During the colder part of the year, natural gas from the underground facility is delivered to Latvian consumers, as well as supplied to Estonia, Lithuania and back to Russia, if needed. In 2019, about 4,107 GWh of natural gas was supplied to other countries.

In 2019 due to the low level of natural gas wholesale price in gas exchange, there was significantly high interest from market participants to inject natural gas in Incukalns UGS, as well as its usage for long term products. Due to high interest from market participants, there were security issues caused by high demand and TSO had to decrease the amount of daily injection and injection speed in order to ensure the continued operation of the storage. TSO also had to extend injection season to fulfil all requests made by the market participants. After decrease of daily injected amount of natural gas and daily injection speed in Incukalns UGS, congestion management was carried out.

2.2.2. Description of the retail market

In 2019, 22 companies were registered in the natural gas traders register.

In 2019, the total Latvian natural gas consumption was 14,152 GWh. The Latvian natural gas consumption structure in 2019 was as follows:

- households – 1,422 GWh or 10%;
- non-household users –12,730 GWh or 90%.

In 2019, there were 397,318 natural gas customers. The number of customers has slightly decreased compared to 2018 when there were 404,532 customers due to the switching to other energy resources and DSO tariff structure changes (introduction of fixed part, which is independent of consumption).

2.3. Security of supply

Security of supply measures are being implemented in accordance with the requirements of Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010 (hereinafter – Regulation No 2017/1938) – the Ministry of Economics of the Republic of Latvia is the competent authority with regards to the mentioned Regulations.

The infrastructure standard N-1 for Latvia is 220.67%.

In 2019, there have been no periods when the natural gas demand was not fully covered. Since the actual consumption of natural gas is approximately 14,705 GWh per annum, due to the capacity of the pipeline system, which is designed for 33,936 – 45,248 GWh annual consumption and the availability of the Incukalns UGS, all the natural gas consumers were supplied without supply interruptions.

Considering the close correlation of the measures for mitigation of natural gas supply risk listed in the risk assessment and those included in the investment program of the natural gas and storage system operator, the preventive measures mainly are based on the investment program of the mentioned system operators. According to Cabinet of Ministers Regulations No 312 "Procedures for the Supply of Energy Users and Sale of Heating Fuel During Declared Energy Crisis and in Case of Endangerment to the State" approved on 19 April 2011 (hereinafter – Cabinet Regulations No 312) and taking into consideration the obligations of the natural gas TSO JSC "Conexus Baltic Grid" set out in the Energy Law, namely, to ensure safety of the transmission system, its efficient and economically reasonable operation, as well as long-term capability to ensure transmission of natural gas according to demand, an auction was launched on ensuring availability of natural gas at the transmission system entry point at the interconnection of transmission system with Incukalns UGS. In 2019, one tender was held, as a result of which 2,8 TWh of natural gas was auctioned for 5,237 thousand euros.

The natural gas TSO JSC "Conexus Baltic Grid" also has specific responsibilities for the Cabinet Regulation No 312, the natural gas TSO shall ensure and store a natural gas reserve in the Incukalns UGS in the amount of the natural gas supply standard determined in accordance with Article 6 of Regulation No 2017/1938. The natural gas security reserve is intended for the supply of natural gas to the protected customers. The natural gas security reserve is continuously stored

at Incukalns UGS and can be used only during the crisis, if the relevant decision of the Cabinet of Ministers has been made.

VI Consumer protection and dispute settlement in electricity and natural gas

National legal acts and legal acts of the EU related to the energy sector provide legal basis for the Regulator's competence to oversee the process of market development, ensuring transparent market information and equal rules for all the market participants.

In 2019, 50 complaints of public utilities users were received and reviewed in the energy sector (30 about electricity and 20 about gas). Complaints on electricity supply were related to the registration of the amount of electricity consumed and the resultant bills (33%), installation of a new connection and supply of electricity (27%), and other issues (40%). In the natural gas supply sector, most complaints concerned issues of the registration of the amount of natural gas consumed and resultant bills (40%), natural gas tariffs (10%), natural gas supply (25%) and other issues (25%).

3.1. Public service issues

The Public Service Obligations are imposed on service providers by law. These are specifically defined in secondary legislation and in license terms. Given that, most provisions are imposed by the legislation.

The Public Service Obligations requirements are defined in several laws, particularly in the Energy Law, the Electricity Market Law and the Law on Regulators of Public Utilities. Additionally, the Regulator has also passed a number of important legislative measures (i.e. adopted amendments) to ensure promotion of best practices in regulated sectors.

In the electricity sector, a DSO has an obligation to connect every customer in the licensed area while complying with the regulations on the connection to the grid, set by the Regulator. According to the above-mentioned regulations, the connection charge (the cost of construction) for the 0.4 kV voltage connections must be shared by the customer and the DSO, where:

- the customer pays 60% and the DSO 40%, if the DSO has less than 100,000 users;
- the customer pays 50% and the DSO 50%, if the DSO has more than 100,000 users.

Other customers and generators are obliged to cover 100% of the connection costs.

Laws have defined several tasks for a public trader, as well as for the Regulator issuing licenses:

- According to the law, all licensed system operators must, in accordance with their licensing terms, ensure safe, continuous and stable delivery of electricity, thermal energy, natural

gas or other types of energy and fuel to existing and potential customers, doing so at an economically justified level of quantity and quality and in conformity with environmental protection requirements.

- The system operator has a permanent obligation to ensure for system users and applicants' access to energy transmission or distribution systems or natural gas storage sites if such access is compatible with appropriate technical regulations and safety requirements.

The obligation to purchase electricity that is produced in an effective cogeneration regime or electricity is produced from renewable energy resources is imposed on the public trader of electricity. The Electricity Market Law specifies that producers can obtain the right to sell electricity to the public trader and the public trader has the obligation to buy it, as long as the producer satisfies requirements that have been defined in the Regulations of the Cabinet of Ministers regarding Electricity Production from Renewable Energy Resources and Price Calculation, adopted on 16 March 2010.

On 10 March 2009, the Cabinet of Ministers adopted the Regulations Regarding Electricity Production and Price Determination upon Production of Electricity in Cogeneration, covering particular criteria and requirements which regulate mandatory procurement. These regulations contain provisions on the operating regime, the security of the supply, the efficiency, and the formula for determining the price of electricity.

The Regulator approves the renewable energy fee and cogeneration fee that should be paid by all the electricity customers proportionally to their consumption. In 2019, the amount of electricity produced from renewable energy resources reached 50% of net production, including hydropower plants with installed capacity more than 5 MW. It is a slight drop from 2018, when the share of the renewable energy was 54%. This decline in the production of the green energy can be explained by different amount of water in the Daugava river and some minor effect also due to the suspension of the support scheme (end of the support term, fraudulent actions in generation, etc.).

In accordance with the Electricity Market Law, on 23 November 2017, the Regulator adopted a new methodology for calculating the mandatory fee (based on the mandatory procurement for power plants that produce electricity from the renewable energy resources and in effective cogeneration regime, in the form of feed-in tariffs or capacity payment) that should be allocated to all consumers. The methodology envisages that part of the costs shall be fixed and linked to the consumers capacity payments and other part shall be proportional to the consumed electricity.

3.2. Protection of vulnerable customers

In accordance with the Electricity Market Law, electricity supply to vulnerable customers from 1 January till 31 December 2019 was provided by JSC "Latvenergo". The electricity price according to the Electricity Market Law is mutually agreed between a trader and a customer. The Cabinet of

Ministers has issued the regulation No 459[6] of 12 July 2016 to provide detailed rules about electricity supply and distribution to vulnerable customers. These rules entered into force on 1 August 2016 and defined that vulnerable customers are poor or low-income families (persons), large families or families which care for disabled children or persons with the first disability group. Due to changes in the mandatory procurement settlement scheme, the rules about electricity supply and distribution to vulnerable customers were amended on 19 June 2018, providing there is no increase in the final electricity price for vulnerable customers. Pursuant to Electricity Market Law the procedures for financing installation of the connection for a protected user shall be determined by the Cabinet of Ministers.

3.3. Labelling the primary energy source

Producers which conform to criteria may receive guarantees of origin in terms of the produced electricity, in accordance with specified procedures prescribed by the Cabinet of Ministers. An institution authorised by the government issues the guarantee of origin. On 22 November 2011, the Cabinet of Ministers approved the rules for obtaining guarantees of origin for electricity produced from renewable energy sources. These rules were applicable until 8 June 2016, when the amendments to the Electricity Market Law entered into force. According to these amendments the Cabinet of Ministers approved new regulations on 14 February 2017.

3.4. Customer protection issues

According to the Law on Regulators of Public Utilities, the Regulator is obliged to deal with customer complaints. In simpler cases, where an agreement between the parties involved in the dispute is achievable, the Regulator provides oral or written consultations or delivers an opinion. In more complicated cases, the dispute resolution procedure is applicable.

In 2019, 30 applications were submitted to the Regulator about the actions of the public service provider in the electricity sector. Three complaints were justified and 4 were not related to the Regulator's competence. A dispute resolution procedure was not applied.

In 2019, 20 applications were submitted to the Regulator about the actions of the public service provider in the natural gas sector. Six were not related to the Regulator's competence. A dispute resolution procedure were applied in two cases in the natural gas sector, which were rejected.

When replying to complainants, the Regulator makes sure that service providers provide thorough and transparent information to customers about applicable prices and tariffs, as well as apply

[6] https://likumi.lv/ta/id/283624-aizsargata-lietotaja-tirdzniecibas-pakalpojuma-sniegsanas-obligata-iepirkuma-komponentes-un-sadales-sistemas-pakalpojuma-kompen... (available in Latvian only)

equal terms and conditions, when it comes to the accessibility and use of electricity and natural gas services.

It can be concluded that the Regulator ensures transparent, simple and free-of-charge procedures for dealing with customer complaints. Such procedures make it possible to settle disputes fairly and promptly, providing for a system of reimbursement or compensation where necessary.

3.5. Regulation of final customer prices

In the electricity sector, the Regulator sets only network tariffs, supply prices are set by bilateral agreements. Both electricity produced and electricity consumed in Latvia are being sold and bought in a power exchange. The supply price is a subject of agreement and the price can be fixed or variable (tied to the spot price).

In accordance with the Energy Law all users of natural gas are free to choose their supplier. All users, except households, are market participants. A household is a captive user unless it has used the option to become a market participant. There is one public trader in the territory of Latvia, which supplies all captive users at regulated tariffs. According to legislation, the obligation to provide natural gas trading services to captive users is imposed on the natural gas trader with the largest number of household users. Currently, the public trader is JSC "Latvijas Gāze".

In accordance with the prevailing legal framework, the Regulator sets tariffs for captive consumers in the natural gas supply sector in accordance with the methodologies approved by the Regulator.

The Methodology for the calculation of natural gas price for captive consumers provides for a transitional period - until the time when the natural gas price laid down in the methodology come, into force, the natural gas price which is determined depending on the amount of the natural gas consumption per year by the captive consumer includes the component of the system services which is determined by summing up the component of the transmission system service and the component of the natural gas storage service, and the trade service tariff for the relevant amount of the natural gas consumption per year approved by the Regulator`s Decision No 247 of 24 July 2008, as well as the natural gas acquisition price determined according to the principles set in the methodology. The public trader, in addition to the natural gas price, must apply a charge for the natural gas distribution system service in conformity with the differentiated tariffs for the natural gas distribution system service in force.

3.6. Activities of the Regulator in ensuring transparency of terms and conditions of supply contracts

A very important duty is to ensure the transparency of terms and conditions when it comes to supply contracts. The Cabinet of Ministers has issued the regulation No 50 "Regulations Regarding

the Trade and Use of Electricity"[7] of 21 January 2014 including main provisions and conditions of electricity supply contracts.

In the gas sector, the Cabinet of Ministers regulation No 78 "Regulations on trade and use of natural gas"[8] of 7 February 2017 sets the main provisions and conditions of natural gas supply contracts, as well as stipulates general rules for the supply of gas.

The Regulator supervises the content of the contracts to prevent discrimination of energy users or non-transparent requirements.

[7] https://likumi.lv/ta/en/en/id/263945-regulations-regarding-the-trade-and-use-of-electricity

[8] https://likumi.lv/ta/en/en/id/289031-regulations-regarding-the-trade-and-use-of-natural-gas